

Quliaqtuavut Tuugaatigun (Our Stories in Ivory)
Reconnecting Arctic Narratives with Engraved Drill Bows

by

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A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Approved November 2013 by the
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ARIZONA STATE UNIVERSITY

December 2013

ABSTRACT

This dissertation explores complex representations of spiritual, social and cultural ways of knowing embedded within engraved ivory drill bows from the Bering Strait. During the nineteenth century, multi-faceted ivory drill bows formed an ideal surface on which to recount life events and indigenous epistemologies reflective of distinct environmental and socio-cultural relationships. Carvers added motifs over time and the presence of multiple hands suggests a passing down of these objects as a form of familial history and cultural patrimony. Explorers, traders and field collectors to the Bering Strait eagerly acquired engraved drill bows as aesthetic manifestations of Arctic mores but recorded few details about the carvings resulting in a disconnect between the objects and their multi-layered stories. However, continued practices of ivory carving and storytelling within Bering Strait communities holds potential for engraved drill bows to animate oral histories and foster discourse between researchers and communities. Thus, this collaborative project integrates stylistic analyses and ethno-historical accounts on drill bows with knowledge shared by Alaska Native community members and is based on the understanding that oral narratives can bring life and meaning to objects within museum collections.

ACKNOWLEDGMENTS

A great many people contributed their support and assistance to this rewarding project. I am particularly thankful to my committee members, Kate Duncan, Richard Toon, Nancy Parezo and Nancy Serwint who offered guidance and encouragement throughout the last several years of coursework and writing.

I am indebted to the kindness of many cultural knowledge-bearers in Alaska who welcomed me into their homes and carving workshops, offered food, and generously shared stories of carving, hunting and living in the Arctic. In Barrow, Whitlam Adams, Charlotte Ahsogeak, Earl Michael Aiken, John Heffle, Eben Hopson, Glenn Ipalook, Perry Matumeak, Gilford Mongoyak Jr., Larry Okomailak Sr., Vernon Rexford, William Simmonds and Richard Talaak. In Point Hope, Robert Dirks Sr., Henry Koonook, Alzred ‘Steve’ Oomittuk, Othniel ‘Art’ Oomittuk and Corey Ahnangnatoguk. In Kotzebue, Levi Angutiqjuaq, Enoch Evak, Jack Frankson Jr., Emmanuel Hawley, Jon Ipalook, Kevin Norton, Vika and Tony Owens, Ross and Millie Schaeffer and Kenny Tikik. In Nome, Francis Alvanna, Wilfred Anowlic, Sylvester Ayek, Thomas Barr, Janice Knowlton, Joe Kunnuk, Teddy Mayac Sr., Greg Muktoyuk, James Omiak, John Penatac, Vince Pikonganna, John Pullock, Jerome Saclamana, Brian Sockpick and Matthew Tiulana. In St. Michael, Joe Akaran, Bernadette Joe, Emily Kobuk, Gilbert Lockwood, Albert and Flora Matthias, Pauline Richardson, Shirley Martin and Damian Tom. In Shishmaref, Thomas Ahgupuk, Randall Jones, Ricky Kuzuguk, George Milligrock, Andrew Ningealook Sr., Baker Ningealook, Albert Olanna, George Olanna Sr., Wilfred Olanna Sr., Bert Sockpick, Gary Sockpick, Roy Sockpick, Stanley and Kara Tocktoo and Edwin Weyiouanna. In Anchorage, Ken Lisbourne and Levi Tetpon.

Funding for community-based work in Alaska and collections research derived from a number of sources. At Arizona State University, I am grateful to the School of Art in the Herberger Institute of Design and Arts and the ASU Graduate College for their award of a Graduate College Dissertation Fellowship. I also thank the following institutions for their financial support: the Smithsonian National Museum of Natural History for a Pre-Doctoral Fellowship; the Philanthropic Educational Organization for a P. E. O. Scholar Award; the National Science Foundation for participation in the Smithsonian Summer Institute of Museum Anthropology; the Alaska Anthropological Association for a James W. VanStone Advanced Graduate Award; the American Museum of Natural History for a Collections Study Grant; and the University of Alaska Museum of the North for the Bureau of Land Management – University of Alaska Museum Archaeological Collections Research Fellowship.

While working in museums and archives, a number of individuals graciously offered their assistance on top of already busy schedules. In the Smithsonian Arctic Studies Center, I am particularly indebted to Stephen Loring who generously shared his office space and unfailing enthusiasm for this project; Bill Fitzhugh, Aron Crowell and Igor Krupnik also offered scholarly insight and expertise. I also thank Mikhail Bronshtein for discussions and insight into ivory carving from the Chukchi Peninsula. At the Smithsonian Museum Support Center, Felicia Pickering and David Rosenthal lent their assistance as well as Pat Nietfeld and Tom Evans at the Smithsonian National Museum of the American Indian and various folks at the National Anthropological Archives and Smithsonian Institution Archives. Special thanks also go to: Bill Wierzbowski at the University of Pennsylvania Museum of Archaeology and Anthropology (Philadelphia);

Laila Williamson, Anibal Rodriguez and Kristen Mable at the American Museum of Natural History (New York); Eva Fognell at the Fenimore Art Museum (Cooperstown, NY); Steven LeBlanc and Emily Pierce at the Harvard Peabody Museum of Archaeology and Ethnology (Cambridge); Alan Francisco at the Field Museum of Natural History (Chicago); Natasha Johnson and Joan Knudsen at the Phoebe A. Hearst Museum of Anthropology (Berkeley); Barbara Brotherton at the Seattle Art Museum; Rebecca Andrews and Hollye Keister at the Burke Museum of Natural History (Seattle); Steve Henrickson at the Alaska State Museum (Juneau); Nadia Jackinsky at the Sheldon Jackson Museum (Sitka); Darian LaTocha at the Anchorage Museum at Rasmuson Center; Tom Evans at the Wells Fargo Alaskan Heritage Museum (Anchorage); Jim Whitney and Angela Linn at the University of Alaska Museum of the North (Fairbanks); Laura Samuelson at the Carrie M. McLain Memorial Museum (Nome); Margo Reid and Nathalie Guenette at the Canadian Museum of Civilization (Ottawa); Jack Davy and Jim Hamill at the British Museum and Robert Storrie at the Horniman Museum (London) and Laura Peers and Zena McGreevy at the Pitt Rivers Museum (Oxford).

Others who lent time and inspiration to this project as scholars and friends include: Lorena Williamson, Iñupiaq language instructor at UAF; Richard Wood for sending auction notices of engraved drill bows; Victor Goldsberry in Nome for sharing his knowledge of regional ivory carvers; Nok Aker of the Barrow Arctic Science Consortium and Linda Jeschke of the Northwest Arctic Heritage Center for arranging public presentations of the project; and Lani Brown and PEO Chapter EM for their warm encouragement. Closer to home, I thank my brother Jacob and sister-in-law Dusty for providing a place to rest and bake while in Nome. My husband Cameron provided

support and patience throughout this journey for which I will be forever grateful. Finally, I thank my parents Ken and Connie Phillips for inspiring in me a love of Alaska and for reinforcing the principle to foster friendships wherever the road may lead.

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ABBREVIATIONS

ACC	Alaska Commercial Company
AMNH	Department of Anthropology, American Museum of Natural History
AMRC	Anchorage Museum at Rasmuson Center
ASM	Alaska State Museum
AYPE	Alaska-Yukon-Pacific Exposition (1909)
BM	British Museum
CMC	Canadian Museum of Civilization
FM	The Field Museum
IHC	Inupiat Heritage Center
HM	Horniman Museum
NAA	National Anthropological Archives, Smithsonian Institution
NMAI	National Museum of the American Indian
NMNH	Department of Anthropology, National Museum of Natural History
OBS	Old Bering Sea
PMAE	Peabody Museum of Archaeology and Ethnology
PENN	University of Pennsylvania Museum of Archaeology and Anthropology
PHMA	Phoebe A. Hearst Museum of Anthropology
PRM	Pitt Rivers Museum
SIA	Smithsonian Institution Archives
SJM	Sheldon Jackson Museum
UAF	University of Alaska Fairbanks
UAMN	University of Alaska Museum of the North

INTRODUCTION

Recent years have seen a growth in museums that commit to cross-cultural understandings and adopt roles described by Tony Bennett (2006) as “differencing machines” which offer formerly repressed histories authorship of their own stories. As seen in the Arctic, collaborative partnerships between Native communities and outside scholars can foster multi-vocal discourse in which oral narratives and stories give meaning to physical objects within museum collections (Crowell 2009; Cruikshank 1995; Fienup-Riordan 2007). While museums contain over three hundred engraved drill bows from the Arctic, these objects remain largely rooted in hegemonic narratives of the past (e.g., Hoffman 1897; Ray 1961; Smith 1980). Thus, this dissertation seeks to displace exclusive discourse on pictorially engraved drill bows by incorporating Arctic oral traditions with material culture analysis and supports the understanding that a holistic approach to knowledge incorporates both Native and Western ways of knowing (Kawagley 2006).

The project's primary research objective is to understand how engraved ivory drill bows serve as a mode of cultural signifier able to transmit information about indigenous activities and beliefs which function as important mnemonic devices or visual aids to oral histories. Specifically, in lieu of a written language, nineteenth century Arctic carvers recorded their personal experiences and cultural understandings on bone and ivory drill bows which feature engraved whaling and hunting activities, village scenes, warfare, celebrations, athletic events, mythological creatures and Euro-American interactions. Cultural knowledge and oral histories embedded within engraved bows are of great import to Arctic communities as explained by Herbert Anungazuk (2007:192) of

Wales who says, "The stories of our ancient past are very complex. Stories are immeasurable wealth to any people."

Engraved drill bows form a unique genre of visual expression as scenes reflect physical and spiritual negotiations of cultural identity through periods of rapid change and transition. Questions guiding my research include: (1) Can one determine the time and location in which pictorial engraving originated? (2) Do pictorial engravings relate to specific oral narratives of hunting and myth-time stories? (3) What can scenes tell us about traditional whaling, hunting and ceremonial practices? (4) Can one unpack the scenes on drill bows to determine socio-cultural relationships? (5) How did external influences such as European explorers and whalers affect the content and style of engravings? (6) How were ivory drill bows acquired as representations of "Eskimo" culture? (7) Can pictorial engravings function as links between past and present, invigorating cultural traditions and stories? To assist in understanding and answering these questions, the project examined relationships between material culture and oral tradition through collections-based research in museums and archives and community-based work within Iñupiat and Yup'ik communities.

Recent Negotiations

While scholarly collaborations among Arctic communities have increased in recent years, projects combining oral tradition and material culture analysis represent an emerging area of interdisciplinary research. Museological analysis of collaborative projects has tended to focus on exhibit development and implementation. For example, Ruth Phillips (2003) discusses two exhibitionary models a "community-based" model, in

which indigenous authorities select and interpret materials, and a “multivocal” model, which combines Native and Non-Native perspectives, and argues audiences can become confused by the diverse viewpoints. Likewise, Ann McMullen (2009) describes problems and prospects of cultural sovereignty in planning for the National Museum of the American Indian while Cynthia Chavez Lamar (2008) contends true exhibit partnerships must begin with community agency and commitment.

James Clifford (2004:22) argues involving Native peoples in exhibitionary discourse does not provide a solution to "problems of situation" for Alaska Native peoples in the contemporary world. For example, criticism of museological power tends to be avoided as museums strive to construct positive images of themselves as managers and preservers of cultural heritage. When museums forsake positive complacency in favor of relating disputed aspects of political or museal history they risk confronting regimes of power. Steven Dubin (1999:9) richly describes museums as “contested sites” or “battlegrounds” when community rights and claims to cultural histories and properties challenge entrenched museal authority and dictatorship. However, it is during these post-colonial “battles” that multiple constructs of identity and heritage are revealed. Michel Foucault (1977:153) argues “effective history” recognizes the invalidity of traditional histories based on constant, continuous development. Instead, true history reveals itself in episodes of rupture and discontinuity.

Minimal exploration of indigenous languages and cultural identity have been explored through the lens of autoethnography. Grounded in postmodern philosophy, autoethnography refers to a position of self-representation and reflexivity in which multiple identities of selfhood and social life are recognized and understood (Reed-

Danahay 1997; Anderson 2006;). Sarah Wall (2006:146) argues autoethnography is a personalized style which draws on an individual's experience to "extend understanding about a societal phenomenon." Although recent autoethnographic studies have tended to focus on written accounts (Newton 2001; Butz and Besio 2004), autoethnography also provides a useful framework for conceptualizing visual narratives on ivory carvings as expressions of individual and cultural identity. For example, Iñupiat carver Henry Koonook (April 2010) of Point Hope explains dreams and stories serve as inspiration for his carvings which connect him to the past. Likewise, George P. Kanaqlak Charles (2009) describes how place names, physical locations and song texts are intrinsic to indigenous identities.

Arctic voices have been heard through self-authorship such as Harry Brower's (2004) recorded accounts of his life in Barrow and Herbert Anungazuk's (2009) discussion of ivory carving in the wider context of hunter-animal reciprocity. Likewise, William Hensley (2009) delineates the variegated dynamics of colonial power relations that contributed to economic oppression and denigration of Iñupiaq language and cultural practices. Outside scholars also give voice to Arctic ideologies as seen in the anthology of Iñupiaq oral histories and myth-time stores by Wann Anderson (2005) and the translated collection of literature from four Alaska Native cultural groups by Ann Fienup-Riordan and Lawrence Kaplan (2007).

Recent anthropological studies within Arctic communities have analyzed areas of task differentiation such as Carol Zane Jolles' (2006) study on enduring Iñupiat ideologies regarding men as sole hunters of marine animals. Ernest Burch (2006) describes socio-economic and political processes which have shaped Iñupiat communities

while Tom Lowenstein (2010) combines archival and anthropological data to explore the historical trajectory of whaling within Point Hope. Although Jolles and Lowenstein work to incorporate Native voice, the authors do not bring a close examination of material culture into their studies.

Ancient ivory carvings and analysis of their stylistic characteristics have been featured in two recent exhibit catalogues: *Upside down: Les arctiques* (Carpenter 2008) and *Gifts from the Ancestors: Ancient Ivories of Bering Strait* (Fitzhugh et al. 2009). However, the majority of catalogue essays derive from non-Native archaeologists and anthropologists resulting in an emphasis on scholarly discourse over Native narratives. Increasing attention has also been given to changing styles of ancient ivories such as Mikhail Bronshtein's (2002) discussion of Old Bering Sea "winged objects" and Robert Ackerman's (2009) description of ancient ivory carving tools.

Perhaps most importantly, collaborative museum projects involving Bering Strait communities are growing in number as seen in the exhibits *Agayuliyararput (Our Way of Making Prayer)* (Fienup-Riordan 1996) and *Looking Both Ways: Heritage and Identity of the Alutiiq People* (Crowell et al. 2001), which opened up space for multivocal contributions expressing a diversity of cultural concerns. Likewise, the development of *Living Our Cultures, Sharing Our Heritage: The First Peoples of Alaska* (Crowell et al. 2010) involved the participation of almost one hundred Alaska Native advisors who selected objects and shared stories that were implemented into the larger exhibit framework. Other recent collaborations involving Bering Strait communities include a series of Alaska Native language workshops utilizing collections on display in the Smithsonian Arctic Studies Center in the Anchorage Museum and a 2009 research visit

by Iñupiat community members to discuss Bering Strait material within British museums (Lyons et. al. 2011).¹

This dissertation represents an opportunity to meld disciplinary perspectives by combining art historical and anthropological understandings of material culture with indigenous traditions of oral knowledge. Julie Cruikshank (1998) argues objects and words have ongoing stories which require analysis of both spoken words and material culture. Likewise, Arjun Appadurai's (1990:7) theoretical notion of ethnoscapas as "landscapes of persons who constitute the shifting world in which we live" provides insight into the impact of collectors, researchers and other moving groups on Arctic communities, their oral traditions, and material culture.

Methodology

This project involves the utilization of three methodological frameworks to gather information on ivory drill bows and carvings that are layered with meaning and carry complex social biographies (Kopytoff 1986; Parezo 2006). First, the project utilizes formal style analysis to determine morphological traits, visual categories, construction of engraved scenes, micro-elements, and relationships between representational systems (Duncan 1989; Bronshtein 2006; Munn 2006). Object analyses assist in understanding the origins of pictorial engraving, stylistic changes over time and the impact of cross-cultural interactions on imagery content.

The second methodology conceptualizes archives as sites of fieldwork and involves the examination of museum archives for collector correspondence, field notes and

¹ Chapter 10 provides further discussion on collaborative and multi-vocal exhibits. For additional information on Alaska Native language workshops organized by the Smithsonian Arctic Studies Center, see Aron L. Crowell, "Iñupiaq Language and Culture Seminar," *Smithsonian Arctic Studies Center Newsletter* 18(2011), 7-8.

accession files relevant to Arctic collections (Brettell 1998). Archival resources allow the researcher to document circumstances surrounding the acquisition of ivories and provides ethno-historical information on activity within nineteenth century Arctic communities. Further, I attempted to explore relationships between oral histories and particular drill bow imagery in an attempt to link linguistic and physical knowledge (Cruikshank 1992; Svensson 2008).

My third methodology comprises community-based work in Northern Alaska and involves carvers and community members as collaborators and cultural knowledge experts (Fienup-Riordan 1996; Loring 2009). I framed my community-based research from a perspective of radical empiricism which replaces the quest for authoritative facts with an attempt to explore micro-histories and local ideologies (Jackson 1989). Collaborative research involved discussions of engraved ivories, sharing oral stories related to carving and subsistence activity, and workshop observations of ivory carving practices. I integrated information resulting from community work with collections-based data to offer a multi-vocal and comprehensive study of drill bows, relationships surrounding their construction and collection and the continued importance of ivory carving within the Arctic.

Engraved Ivory Carvings in Museum Collections

Engraved ivory carvings from the Bering Strait represent one of the most widely collected and circulated forms of tangible Iñupiat and Yup'ik heritage (i.e. Hollowell 2004; Ray 1977). A growing practice of moving collections online offers opportunities for increased awareness of engraved ivories in both cultural and academic settings. However, many museums have yet to make their collections online accessible and

engraved ivories hold certain formal and visual properties that cannot be ascertained through photographs and written descriptions. Accordingly, to determine the scope of engraved drill bows in collections and analyze engraved ivories in detail, I visited seventeen North American and European museums between 2010-2013. Toting assorted research equipment of data sheets, camera and calipers, museum staff welcomed me into their collections, pulling requested objects and searching for others they thought might be of interest, opening storage drawers and exhibit cases, and sharing museum historiographies.

Using a purposive sampling frame, collections research resulted in the examination of over 800 engraved objects including 311 drill bows and 342 assorted implements with analogous nineteenth century pictorial engraving. I also examined 87 engraved ancient carvings and 156 carvings with Western pictorial designs to understand connections between ancient, historic and modern engraving styles and techniques. Further, I studied 29 drills, 26 mouthpieces and several hearths to gain insight into drill bow use and regional preference for certain materials and forms. Finally, review of published sources, museum records and online databases garnered another 65 engraved drill bows creating a list of 376 engraved drill bows spread across 36 North American, European and Asian museums (Appendix C).

Following collections research, I created a dataset or study group of 286 engraved drill bows with details on their acquisition history, materials, imagery and regional engraving styles (Appendix E). The study group does not include drill bows identified through published sources due to inadequate information on the number of engraved sides, range of motifs, etching technique, etc. Likewise, the study group also left out drill

bows examined in collections with only rudimentary engravings. I completed hands-on analysis for each of the drill bows in the study group with the exception of ten bows at the Field Museum that could not be removed from their exhibit cases. The decision was made to include these ten drill bows as the glass cases allowed for all around viewing of the objects. Finally, five flat drill bows with double lash holes suggest secondary use as bag handles but have been included in the study group due to featuring engraved scenes of similar construction to drill bows.

Analysis of morphological characteristics revealed 270 drill bows of ivory and 16 drill bows of caribou bone or antler ranging in shape from the most common, rectangular, to flat, square, triangular and cylindrical bows with both squared and rounded edges. The majority of drill bows include a single circular or elliptical lash hole on each end followed by double lash holes and a type of double lash hole that exits as a single hole from the opposite side. Carvers showed a preference for bearded sealskin straps with complete and partial skin straps on 115 drill bows while four drill bows feature straps of braided caribou sinew, and two drill bows include straps of commercial or tanned leather possibly added post-collection. Drill bows also reveal a continuum of use wear with heavily used bows generally showing scratched and soiled surfaces, blurred or faded outlines on motifs, areas with loss of soot fill, build up of sediment within lash holes, and drilled secondary lash holes due to breakage of ivory tips.

Close analysis of drill bow engravings involved identification of tool usage such as the construction of figures with symmetrical round heads indicating use of a rotating metal bit or drill compared to figures with scratched out or gouged heads of oblong form. I also noted depth, broadness and precision of lines in addition to etching techniques used

to darken motif centers including loose and dense vertical lines, hatching, scribble lines, barbed lines and gouged out areas. The engraved carvings also reveal a variety of etching fill including ash or soot in hues of dark black to red brown, red ocher, lead, and black ink, with the latter typically seen on early twentieth century engravings. Additional recorded traits include size of motifs, placement of motifs across the surface and density of imagery. I also culled data on the scope and frequency of individual motifs such as whales, sod houses, and myth creatures resulting in an illustrated list of 153 motifs with regional variations (Appendix F). Finally, I examined the presence of multiple engraving styles on a single drill bow and surprisingly found that 91 drill bows, almost one-third of the group, show evidence of individual drill bows being passed between carvers.

Formal properties such as the use of ivory or antler provide insight into resource availability related to geographical origin. For example, the majority of bone and antler drill bows feature styles of engraving linked to St. Michael and Pastolik, villages with traditionally greater access to caribou than to walrus. Likewise, variation in etching fill from soot to graphite to black ink aids in establishing a temporal trajectory of creation based on the incorporation of outside materials into carvers' toolkits. To help delineate regional variations, I combined information on material usage with engraving characteristics including etching technique, quality of line, size and placement of motifs and content of imagery. Additional information from museum documentation and archival sources including catalogue records, collector journals, correspondence and photographs also contributed to defining regional engraving traits. Finally, I augmented collections-based data with ethno-historical sources providing further insight into cultural ontologies, drill bow use and the social biographies of engraved ivories as they moved

from carvers' hands into those of collectors and museums.

Community-Based Research in Northern Alaska

During 2010-2012, I made several trips to northwest and central Alaska as part of my dissertation research to seek community input on traditional ecological knowledge (TEK) and oral stories embedded within pictorial engravings on nineteenth century ivory drill bows. Before traveling north, I sent letters of introduction to each community IRA for project approval. Following approval, I identified potential project contributors through personal contacts as well as IRA members and carvers who suggested additional participants. I also created postcards describing the project and handed the cards out to interested community members.

Forty-seven cultural knowledge contributors in Barrow, Point Hope, Kotzebue, Shishmaref, Nome, St. Michael and Anchorage shared thoughts on drill bow construction and use, activities portrayed in engraved scenes and how carving connects to a wider realm of physical and oral activity (Appendix A). The seven communities chosen for the project include complex histories of carving ivory with a number of contemporary carvers continuing to work in the area. Restrictions of time and resources limited visiting other communities, which would have offered additional perspectives on engraved drill bows. However, trips to Nome and Anchorage afforded opportunity to visit with carvers from Little Diomed and Shaktoolik and their voices have also been integrated into the project discourse. Project participants ranged in age from 13 to 87 years old. Almost all formal participants were male due to ivory carving as a primarily historical and contemporary male-centered activity. However, female family members of carvers also participated in discussions with their thoughts on subsistence activities and material

culture woven into the written text.

The majority of community visits in Alaska involved informal one-on-one interviews with carvers who examined photographs of pictorial engraved ivories in a binder, shared life experiences, and discussed a range of topics related to hunting and carving (Appendix B). Photographs of museums objects served as a form of “visual repatriation” and prompted discussion on drill bow use as well as stories related to the motifs (Fienup-Riordan 2000). Video-recorded interviews took place in the homes of carvers as well as the Iñupiat Heritage Center and AC Value Center (Barrow), Sulianich Art Gallery and Maniilaq Health Center (Kotzebue), King Island Native Community Building and Carving Workshop (Nome), St. Michael IRA Building and the Anchorage Museum at Rasmuson Center.

Twenty-one project participants demonstrated the use of carving tools and creation of projects including engraved ivory carvings, whalebone and ivory masks, baleen etchings, and ivory jewelry including earrings, rings and bracelets. Two carvers demonstrated the use of their hand-made drill bows. Carving demonstrations were videotaped offering valuable information on this specialized activity including physical setting, social unit, preparation and use of materials, tools and stylistic choices (Borman, Puccia, McNulty, Goddard 2007). Recorded participants signed release forms and all contributors received a few carving materials and coffee or tea in appreciation for partaking in the project. I also handed out several books on ivory carving and Alaska Native artwork to carvers and the IRA council of each community. Following community work, each participant received a transcribed copy of his interview, personal photographs taken during the interview process, and a number of photos of engraved ivories within

Smithsonian collections. Upon completion of the project, each IRA council will receive a printed copy of the dissertation with digital copies made available to interested individuals.

While engaged in community work, I also sought input from the general public with project presentations at the Iñupiat Heritage Center in Barrow, the Northwest Arctic Heritage Center in Kotzebue, the Carrie M. McClain Museum in Nome and the Nome Beltz High School. I also gave presentations on the ivory carving project during collections research at the Sheldon Jackson Museum in Sitka and the Alaska State Museum in Juneau prompting discussions on engraved ivories and Arctic lifeways from visitors with varied interests and backgrounds. Visitors to the guest lectures received copies of two educational worksheets developed for the project, “Iñupiaq Language Game: Ivory Drill Bows” and “Ivory Drill Bow Stories.”

Community-based research within Alaska contributed to a multi-vocal perspective on the nature of ivory carving as personal identifier and cultural expression. Carvers and community members connected oral narratives and their own personal histories to the nineteenth century ivory carvings, re-animating the objects and conferring contemporary meaning to the engraved imagery. Project contributors also expressed ideas behind their own work, concerns with passing on cultural traditions and suggestions for future museum-scholar-community collaborations. As evidenced by community work, an integration of oral histories into material culture analysis offers new insights into the multiplicity of narratives behind engraved ivory drill bows, their role within Arctic societies, and the ability for stories to reengage communities with objects of cultural heritage.

Arctic Material Culture at the Interface of Art History and Anthropology

A study focused on Arctic material culture calls for art historical and anthropological approaches to understanding morphological as well as stylistic traits of engraved ivories as responsive to external influences, individual creativity and socio-cultural change. Mariët Westermann (2005:xxiv) argues the effectiveness of an interdisciplinary interface stating, “art history’s practice of bringing historical context to bear on the conventions of art, in part to explain the visual knowledge of a *historical period*, is analogous to anthropology’s efforts to elucidate the ways of seeing of a *cultural system*.”

Traditionally, art history has expressed primary concern for engraved ivory aesthetics (i.e. line and form) and relative value (e.g., Carpenter 1973; Smith 1980). On the other hand, conventional anthropology tends to discuss ivory carvings in the context of social practices and universal values (e.g., Burch 2006; Collins 1937). However, working with material culture requires crossing disciplinary boundaries to search for lines of applicable evidence that can result in research with strong empirical credibility and holistic perspectives on objects of visual culture.²

Alison Wylie (2000) discusses the efficacy of exploiting disciplines outside archaeology to achieve vertical and horizontal independence between proposed hypotheses. Likewise, local interactions and assessments between art history, anthropology and other disciplines can be utilized to achieve epistemic independence and empirical validity. However, Ruth Phillips (2005) cautions combining the dialogic

² W. J. T. Mitchell (1995:541-42) describes visual culture as a “new hybrid interdiscipline that links art history with literature, philosophy, studies in film and mass culture, sociology and anthropology.” Mitchell advocates visual culture can act as a meeting point or place of convergence and discussion between scholarly domains.

methods of anthropology with the aesthetic discrimination of art history raises concerns regarding the endurance of primitivism, origins of art, issues with cross-cultural translation and the questionable value of aestheticism and quality to anthropological research. Phillips stresses ideas about value must be discussed in multi-vocal terms leading to shared authority over modes of representation and an ensuing balanced distribution of communicative power.

Accordingly, to achieve discursive understanding across disciplines, Wylie (2000:31) puts forward the analogy of “trading zones” relating to the exchange of goods between different cultures and the trading of knowledge and techniques between scholarly disciplines. In this regard, to encourage the exchange of multivocal discourse around engraved ivories, hybrid languages and meanings must be developed which allow for interaction between disciplines without altering their original language.

Disparate methods of collecting, preserving and displaying indigenous objects greatly influences their discussion as either cultural material or objects of art. Carlo Ginzburg (1995:535) maintains the nature of a discipline requires the practitioner to distinguish questions and methods applicable or unrelated to a discipline and advocates effective connoisseurship as “interdisciplinary from within.” For instance, one needs to consider a range of viewpoints when researching nineteenth century pictorial engraved ivory drill bows that belonged to men, were used in conjunction with a drill and mouthpiece, and formed part of a carver’s toolkit. To produce a nuanced perspective, one must ask questions of various disciplines such as archaeology (when and where do engraved drill bows appear), ecology (who had access to marine mammals), indigenous law (who could use them), anthropology (what was their role in the community), and art

history (what can pictorial engravings tell us about visual systems and stylistic exchange).

Pursuing an interdisciplinary approach to Arctic material culture also increases a research project's multivalent currency to diverse audiences. Pictorial engraved ivory drill bows hold varied significance according to their discussion as a transcultural implement (anthropology), visual expression (art history), representational practice (museum studies) and symbol of cultural heritage (indigenous identity). The current project seeks a convergence of multiple perspectives through cross-disciplinary analysis and interpretation of drill bow elements in addition to incorporating frames of reference from contemporary ivory carvers. Involving contemporary carvers also provides insight into the interplay between a creator's aesthetic sensibilities and a cultural setting exposed to external influences (Dubin 2001). While museums pursue increased collaborations with indigenous communities, researchers must also seek engagement with Native artisans to improve understanding of the complexities of cultural patrimony as it bears upon ethnic and artistic identity.

Social Lives of Engraved Ivory Carvings

Prior to nineteenth century waves of explorers to the Bering Strait, Siberian Yupik traders formed a "distinct quasi-cultural group" moving goods such as tobacco and beads from Eastern Asia into Arctic communities in exchange for furs and ivory (Curtin 1984). In this regard, Siberian traders served as commodity mediators mitigating the transformative impact of international trade. Early nineteenth century expansion of Arctic expeditions, such as those led by Otto von Kotzebue and Frederick W. Beechey, transferred negotiations between disparate systems of commoditization to non-Native

explorers. The establishment of trading posts in Norton Sound and the influx of field ethnographers on collecting trips, such as Edward Nelson and Adrian Jacobsen, eased the transition of subsistence economies into a cash economy by accepting ivory carvings and other cultural material as objects of exchange.

Igor Kopytoff (1986:64) argues that within non-monetized societies, the “problem of value and value equivalence” leads to distinct spheres of exchange. These spheres are pushed to the limits in a process of optimum commoditization that tries to incorporate as many commodities as possible using the existing exchange technology. Previous to the increase of colonizing influences, small scale-societies representative of many Iñupiat and Yup’ik nations held relatively closed exchange spheres with stable object identities (i.e. Burch 1998; 2006). Early traders in the Bering Strait worked primarily within localized exchange systems to barter Western goods for furs, ivory, and similar traditional units of trade (i.e. Lowenstein 2010; Ray 1992). Continued encroachment of advanced exchange technologies linked to large-scale societies contributed to open exchange spheres and a renegotiation of social and object identities (VanStone 1962). Thus, one can consider societal forces constructing a nineteenth century ivory carver’s identity also impacted an ivory drill bow’s identity and ensuing cultural biography.

Objects embark on their cultural biographies once detached from an original social setting and placed into a state of commoditization whereby follows a process of singularization or collectability in which objects are removed and decommoitized into a new social setting with the possibility of reentering a realm of exchange through a process of recommoditization. The social life of drill bow NMNH E48522 represents a case study to indicate the complex cultural biographies of engraved drill bows both

before and after acquisition by collectors.

Ivory drill bow E48522 is of rectangular form with three engraved sides featuring motifs by two separate carvers. Carver 1 engraved two sides with balanced imagery composed of large-scale motifs darkened with dense vertical lines and hatching creating solid figures. The first side depicts fifteen large bearded seals pulled by small figures with ice picks. The second side uses two vertical lines to create three panels: the left illustrates a figure wearing a hunting bag, a figure being expelled from a qagri, bowhead whale, two walrus and two dancers; the central panel depicts nine figures including drummers, dancers wearing loon headdresses and a figure doing the high-kick; the right scene includes bearded seals, a bowhead whale and an umiaq (Fig. 1a).

Carver 2 makes an appearance on the second side with the inclusion of a looped graphic element at the end and also engraves a complete third side with scattered motifs darkened with wide vertical lines. The third side illustrates umiat hunting bowhead whales, Bering Strait style kayaks hunting walrus, figures pulling seals and a lone caribou on the end (Fig. 1b).

Based on engraving style and depiction of loon headdresses, the earliest social setting for drill bow E48522 was probably Point Barrow. The bow features a relatively scratch-free surface but has a stripped lash hole indicating the original carver used it for a short while. It appears the drill bow then entered a state of commoditization as the first carver traded the drill bow to a second carver who added his own motifs to the third side. The sketchy motifs on the third side suggest a hastier engraving process, perhaps with the intention to complete or fill out the bow before trading it to a collector.

Circulating within a state of commoditization, Edward Nelson acquired the drill

bow through purchase or exchange between 1877-81 while traveling in Kotzebue Sound. The drill bow then entered a new setting of the Smithsonian Institution and an apparent condition of terminal commoditization. However, Walter James Hoffman examined the Smithsonian's collections of engraved ivories and published the drill bow's row of dancers in his 1897 report *Graphic Art of the Eskimos* (Fig. 2). It appears a non-Native carver observed Hoffman's illustration and used it as a reference to engrave the dance scene onto old ivory from St. Lawrence Island (Ray 1996:158-61) (Fig. 3). The false artifact with appropriation of imagery from the drill bow represents a process of recommoditization, but one by proxy, in which a visual copy of the original circulates as an altered commodity.

The physical circulation of drill bow E48522 continued during inclusion in the 1972-73 exhibition *The Far North* and the 1981 exhibition *Inua: Spirit World of the Bering Sea Eskimo*. Both exhibit catalogues published drill bow E48522 with disparate modes of representation including *Inua* using the dance imagery to frame discussion on the Yukon-Kuskokwim Bladder Festival (Collins, et. al. 1973:88; Fitzhugh and Kaplan 1983:206-10) (Fig. 4).

During 2012 community-based work in Nome, carver Jerome Saclamana paged through the project binder of collections photographs and became inspired to try his hand once again at old style pictorial engraving. Saclamana decided to emulate the dance scene on drill bow NMNH E48522 and applied the motifs to an ivory letter opener with a curvilinear seal handle (Fig. 5). The carving posed significant commodity potential as Saclamana carefully smoothed out the ivory and etched the row of dancers. However, within the social situation of a carver-researcher context, Saclamana chose to gift the

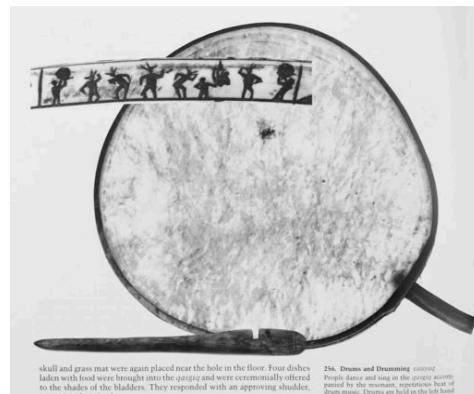
engraved ivory thereby diverting the object from a situation of commodity candidacy (Appadurai 1986:14) (Fig. 6). The convoluted social history of drill bow E48522 reveals a singularizing process in which the object and imagery lifted from the object represent a form of cultural capital or representational power utilized by both institutions and individuals (Bourdieu 1984).



Fig. 1a-b. Engraved ivory drill bow collected by Edward Nelson between 1877-81. NMNH E48522.



Fig. 2. “Fig. 140. Ceremonial Dance.” Illustration of dancers of drill bow NMNH E48522 (from Hoffman 1897:915).



236. Drums and Drumming *country*
People dance and sing in the evening around
painted by the musician, repetition beat of
their music. Drums are held by the left hand.

Fig. 3. Dancers based on drill bow NMNH E48522 engraved on old ivory to resemble an artifact. H 7.2, W 7.7 cm. UAMN UA94-009-0068A.



Fig. 5. Carving area of Jerome Saclamana with a rocker etcher, India ink, drill bits, glue and partially completed ivory letter opener. Nome, AK. 2012.

Fig. 4. Drill bow NMNH E48522 published in the exhibition catalogue *Inua: Spirit World of the Bering Sea Eskimo* (from Fitzhugh and Kaplan 1983:208).



Fig. 6. Jerome Saclamana holding his engraved ivory letter opener based on drill bow NMNH E48522 with the author. Nome, AK. 2012.

Flow of the Dissertation

Part One focuses on the cultural landscape of the Bering Strait and socio-historical relationships between communities and collectors. Chapter One highlights seven ivory carving communities with a brief description of flora and fauna followed a review of carving history and drill bow use within each area. The chapter also introduces contemporary carvers, their observations on pictorial engraved ivories, knowledge about subsistence activities, and efforts to pass on Native language and arts while protecting the area's natural resources for future generations. Information shared by community contributors provides a framework for the overall discussion and their thoughts and stories are woven into the remaining chapters. Chapter Two reviews major waves of collecting within the late eighteenth to early twentieth century Bering Strait along with changing motivations and relationships with source communities. The chapter delineates

primary collectors of engraved drill bows with attention to acquisition locations, descriptions of ivory carvings, and observations on local customs.

Part Two examines physical and oral knowledge embedded within ivory drill bows and the requisition of needed skills and experience for hunting ivory, learning to carve, and crafting a drill bow. Chapter Three discusses the import of walrus within coastal communities, varied modes of walrus hunting, distribution of tusks, and alternative methods of obtaining unworked ivory. The chapter also describes legal issues facing contemporary carvers as well as rising costs associated with carving ivory. Chapter Four looks at the function of qagri as traditional centers of social life and men's workshops with the transmission of carving skills and stylistic mores. The chapter follows the transformation of communal carving to gaining experience in local schools and individual homes to current examples of collective carving centers. Chapter Five explores historical changes in ivory carving toolkits with the predominance of drill bow use and specific traits of the nineteenth century bow drill tool complex. The chapter also analyzes a processual chain involved with creating a drill bow as well as the significance of traditional tools to contemporary carvers and the creation of a drill bow in the twenty-first century.

Part Three explores Bering Strait systems of visual representation with the diffusion of pictorial schemata in the nineteenth century and gradual adaptation of standardized motifs to signify Arctic culture. Chapter Six traces the emergence of pictorial engraving from ancient carving traditions and examines connections between the earliest collected engraved drill bow to other visual materials. Chapter Seven analyzes the construction of engraved drill bow scenes, including the use of baselines, motif structure,

etching technique, and content to aid in the identification of regional styles and explore the transference of visual designs. The chapter delineates fifteen regional engraving styles with notes on collection history, form and use wear, overall appearance, etching technique and construction of seven primary motifs. Chapter Eight looks at the development of the Bering Strait tourist market accompanied by an emerging sense of cultural and artistic identity with a focus on three drill bow carvers who utilized distinct repertoires of motifs and propitiated an era of recognizable artists.

Part Four considers the varied roles of engraved imagery to prompt oral narratives within indigenous communities and frame representational narratives within museum settings. Chapter Nine discusses the import of oral traditions within Arctic communities and the use of engraved drill bows to record local experiences, aid in the retelling of ancestral events, and pass on traditional ecological knowledge. The chapter examines fourteen different “tags” or categories of drill bow imagery and their relationships to cultural ontologies, subsistence activities, and socio-historical changes within the Arctic. Chapter Ten explores the acquisition of drill bows stories as objects by collectors and the influence of collector narratives on creating exhibits about Arctic peoples. The chapter focuses on the presentation of engraved drill bows within five representational frameworks structured by changes in theoretical principles, museological practice, and multi-vocal discourse. Chapter Eleven concludes with a discussion on the continued import of ivory carving within Arctic communities and the significance of drill bows as familial and cultural heritage. The chapter examines local displays of material culture and emphasizes the potential of museum-community collaborations to reanimate objects within collections and inspire future generations of artists and oral historians.

CHAPTER 1

IVORY CARVING COMMUNITIES OF NORTHWEST ALASKA

Ancient and contemporary cultures merge in the Bering Strait, a region broadly encompassing the northern coastline of Alaska, Bering Sea Islands and eastern Chukchi Peninsula (Fig. 7). For almost two thousand years, Arctic hunters have pursued walrus in the icy waters and transformed ivory tusks into carved objects of utility and beauty. Archaeological records reveal widespread ivory production in almost all coastal settlements with major changes in walrus hunting and ivory use following increased contact with Westerners during the late nineteenth to early twentieth century. Early explorers to the Bering Strait encountered communities with a complex practice of engraving subsistence activities and indigenous beliefs onto ivory implements. The most elaborate pictorial scenes appear on engraved ivory drill bows, a tool complex tied to local traditions rich with stories and knowledge of the past.



Fig. 7. Map with “Landmarks and Villages – Northern Alaskan Eskimos” drawn by William A. Oquilluk (from Oquilluk 1973:xvi).

Bering Strait drill bows functioned as both an implement of survival and an essential part of an ivory carver's toolkit for over two hundred years. William Oquilluk recounts the introduction of drill bows among the people of Kauwerak following a great disaster:

He took a piece of dry wood that was wide and laid it on the ground. The other piece was rounded on the bottom. He made a little dent in the flat wood so the other stick would stay in place. Then he took his bow and looped it around the stick that stands up. When he moved the bow back and forth, the stand-up stick whirled real fast. He put the cotton plant around the dent. When the cotton started to burn, he put it in some dry grass. Pretty soon he had a good fire going. (Oquilluk 1973:27)

By the late eighteenth century, Bering Strait carvers appear to have been practicing the complex visual system of pictorial imagery engraved on ivory drill bows, bag handles, hunting implements and personal articles. Drill bow carvers came from distinct nations with specific dialects and geographical economies (Burch 2006:7) that influenced the content of imagery and contributed to the development of regional engraving styles. Thus, engraved drill bows reflect both local carving traditions as well as personal connections to the environment such as memories or experiences hunting walrus and caribou.

Contemporary Bering Strait communities exemplify continuity with the past engaging in subsistence activities, learning the language, performing old custom dances, preparing traditional foods and passing on oral stories (Steve Oomittuk April 2010). Likewise, artisans continue to transform local resources into visual expressions constructed of ivory, whalebone, baleen and grass. Contemporary carvers work with a variety of materials and styles practicing to various degrees in Barrow, Point Hope, Kotzebue, Shishmaref, Wales, Little Diomedea, Teller, Nome, St. Michael and Anchorage. Ivory

carvers also work in Gambell and Savoonga on St. Lawrence Island and Uelen in Chukotka in areas with sustained proximity to migrating walrus. Current carvings and engraved imagery speak of individual responses to and negotiation of cultural identity through processes of historical change.

Between 2010-2012, I made several trip to Alaska to visit with cultural knowledge bearers in seven ivory carving communities including: Barrow, Point Hope, Kotzebue, Shishmaref, Nome, St. Michael and Anchorage with additional contributors from Little Diomed and Shaktoolik (Fig. 8). Community contributors shared their thoughts on engraved drill bows motifs, offered information on hunting practices and discussed their experiences carving ivory (Fig. 9). Carvers also provided first-hand knowledge of drill bow use and shared stories about fathers and grandfathers creating drill bows and carving within the qagri. Information shared by community contributors contributes to a multi-vocal discussion of engraved drill bows including socio-cultural circumstances surrounding their construction and collection and emphasizes the potential of oral narratives to reanimate historical objects of material culture.



Fig. 8. Arriving in Point Hope, AK on Bering Air. 2010.



Fig. 9. Henry Koonook discussing engraved ivory drill bows with the author in Point Hope, AK. Photograph by Ken Phillips, 2010.

Barrow / *Utqiagvik*

Surrounded by the Arctic Ocean on three sides and windswept tundra to the south, Barrow, Alaska appears cloudy and bleak for a large part of the year. Barrow has a cool and dry polar climate with average temperatures averaging around -17 F in January and 40 F in July. Ice fog arising from the Chukchi Sea to the west and Beaufort Sea to the east frequently settles in during the winter months but when clear, numerous ponds and lakes appear across a vast landscape extending southward to the Brooks Range (Fig. 10). Strong winds and less than ten inches of rain a year restrict faunal growth to hardy shrubs and a brief summer season with a profusion of cottongrass, Arctic poppies and woolly lousewort. The landscape's visible harshness belies the profusion of life in the icy waters including bowhead whale, walrus, seals, fish and polar bears. The coasts and tundra also set the stage for annual migrations of caribou and waterfowl including Pacific Loons, Tundra Swans, King Eiders and Long-tailed Ducks.

The northern settlement of Nuvuk received the name of Point Barrow in 1826 from Captain Frederick William Beechey who wanted to honor Sir John Barrow, organizer of the British expedition of the *HMS Blossom* (Beechey 1931). A large group of villagers also lived southwest of Nuvuk at Cape Smythe in the settlement of Utkiavwin.³ Although the two groups experienced strained relations, by the early 1900's the majority of Nuvuk villagers had relocated to Utkiavwin, the current site of Barrow (Maguire 1988). Today, Iñupiat residents refer to Barrow as *Utqiagvik*, meaning "the place where *ukpik*, the snowy owl, nests" (Hugo 2010). The Barrow area has a lengthy

³ Members of the International Polar Expedition of 1881-83 frequently referred to the village at Cape Smythe as Uglamie (Murdoch 1988:lxxxix).

history of indigenous settlement with ancient mounds suggesting villagers lived in the vicinity since at least AD 500. Accessibility to marine resources largely determined past settlement locations as seen at the Birnirk site of Pigniq where villagers lived close to Elson Lagoon by the Chukchi Sea and the Thule settlement of Nuvuk with residents close to marine life off the tip of the land (Carter 1966; Jensen 2009). Approximately 4,200 current residents live year-round in Barrow making it the largest Iñupiat community in Alaska (Fig. 11).⁴



Fig. 10. Whalebones and umiat frames set against the Arctic Ocean in Barrow, AK. 2012.



Fig. 11. View across the rooftops of downtown Barrow, AK. 2012.

Ancient carvers from Barrow used a tool assemblage of flints and adzes with drill bows appearing during the Punuk-Thule period (A.D. 800-1200). Archaeologists working at Utqiagvik in 1981 uncovered an ivory drill bow with scalloped edges and engraved barbed lines still connected to a strap of braided sinew determined to be about two hundred years old (1990:44).⁵ Smithsonian collectors Edward Nelson and John Murdoch

⁴ Current community populations in this paper are based on data from the 2010 Census, State of Alaska, Alaska Department of Labor and Workforce Development, Research and Analysis, <http://laborstats.alaska.gov/census/>

⁵ Archaeologists uncovered the engraved ivory drill bow in Mound 44 of a winter sod house within an assemblage of floor-related artifacts determined to be from a pre-contact period at Utqiagvik. Researchers describe the drill bow as “diamond in cross-section, albeit rather flattened. Braided sinew extends from hole at one end with other end wrapped near the broken-off hole at the other. Below the scalloped, convex dorsal edge an incision runs for the full length of the piece, while the ventral edge describes a smooth

obtained similar scalloped drill bows in Point Barrow and Point Hope during the early 1880s. One ivory drill bow acquired by Murdoch from Cape Smythe features a scalloped edge and two sides engraved with a series of horizontal lines and parallel tick marks darkened with red ocher (Fig. 12). Scalloped drill bows with geometric designs appear alongside nineteenth century pictorial engraved drill bows with the latter dominated by imagery executed in a sketchy manner related to the overlapping Birnirk culture (A.D. 800-1200). Frederick H. Rindge collected one example of an early drill bow from Barrow with loosely engraved motifs of hunters pursuing bowhead, walrus and caribou in addition to parallel lines and dashes (Fig. 13).

Barrow carvers relied on drill bows throughout the early twentieth century as noted by Ross Ahngasuk, born in 1907, who describes his childhood home with a skin tool bag filled with “just a few tools, file, knife, plane, Eskimo drill.”⁶ Twentieth century Barrow carvers also utilized drill bows and other traditional tools to create tourist objects as seen in a c.1910 photograph of a carver using a drill bow to make holes for a cribbage board (Fig. 14).



Fig. 12. Engraved ivory drill bow or bag handle. Collected by John Murdoch at Cape Smythe between 1881-83. NMNH E56518.

concave arch. One or two incisions follow the central ridge of either face and from this, short lines radiate transversely toward the edges.” (Utqiagvik 1988:58).

⁶ Ibid., 499.



Fig. 13. Engraved ivory drill bow with bearded sealskin strap. Collected by Frederick H. Rindge before 1894 from Point Barrow. PMAE 94-57-10/R105.



Fig. 14. A bow drill carver in Barrow creating holes for an ivory cribbage board. An unworked section of tusk and an adze are at the carver's feet. Photograph by T. P. Brower, c. 1910 (from Pearce 1985:15).

Contemporary artists in Barrow rely on mixed toolkits of hand and power tools such as coping saws, hacksaws, vise grips, metal scribes, band saws and electric buffers (Heffle 2012; Matumeak 2012; Mongoyak 2012). Larry Okomailak Sr. of Barrow specializes in making baleen boats and notes his uncle encouraged him to start purchasing his own tools that now include a Foredom drill, sanders, hand-held band saw, buffing compound and aluminum boat patterns.⁷ Okomailak works in an assembly line manner to save time and resources, which he learned from baleen etcher Vernon Rexford

⁷ Personal communication with the author May 24, 2012.

(Fig. 15). Rexford, an active whaler, appreciates the ability of power tools to shape and polish baleen providing him more time to etch detailed scenes often involving whaling and feasting (Fig. 16). Rexford also purchased a laser etcher in the spring of 2012 in hopes to mass produce his designs and get his work into gift shops allowing him to work on custom pieces.⁸

Drill bows seem tied to the past as noted by caribou skin mask maker Charlotte Ahsogeak of Barrow who recalls her father David Utuuna using a drill bow to make holes in ivory.⁹ Only one local artist, baleen etcher Earl Aiken (May 2012) of Barrow, described using a drill bow, which Aiken explained he used to make ulu earrings. Ivory carver and baleen etcher Gilford Mongoyak Jr. (May 2012:2) of Barrow expressed admiration for drill bow engravings stating, “It’s amazing how some people do their scrimshaw, from times past.” Mongoyak favorably compares the pictorial style on drill bows to baleen etchings done by Aiken and notes some etchers can become too focused on perfectionism, relying on published illustrations or photographs for inspiration rather than visual and experiential knowledge gained from hunting (2012:2).

⁸ Personal communication with the author May 25, 2012.

⁹ Personal communication with the author May 25, 2012.



Fig. 15. Larry Okomailak Sr. preparing to clean baleen for making baleen boats. Barrow, AK. 2012.



Fig. 16. Vernon Rexford etching a detailed scene on a full-length plate of baleen. Barrow, AK. 2012.

Barrow's close proximity to the annual Pacific walrus migration has provided residents with ivory for generations. Locals speak in admiration of the late master ivory carver Reverend Samuel Simmonds who carved realistic ivory figures he hoped would preserve the traditional activities he saw in childhood.¹⁰ Whitlam Adams (May 2012) of Barrow has carved ivory for over fifty years with recent years focused on creating mineralized ivory bracelets, small ivory whales strung on necklaces and inlaid ivory and baleen belt buckles (Figs. 17-18). For other carvers in Barrow, the decline of local walrus hunting has led to a scarcity of raw ivory and many artists must purchase the material. Gilford Mongoyak (May 2012) explains he will buy ivory when a hunter shares his tag and takes advantage of other natural resources, often acquired through beachcombing, to create etched baleen wolf scares, caribou jawbone sleds and wood snow goggles (Figs. 19-20). Many local artists choose to work with readily available baleen of which a sizeable stack of plates can typically be seen outside the Iñupiat Heritage Center (IHC) (Fig. 21). Whaling captains frequently donate the baleen for artists to use who must then contribute the active process of cutting, cleaning, scraping and polishing the plates.

¹⁰ Dimitra Lavrakas, Obituary for Samuel Simmonds, *The Arctic Sounder*, September 1996.

Contemporary carvers work in various areas around town with some artists such as Whitlam Adams and Gilford Mongoyak preferring the convenience and quiet of workshops set up within their own homes. In contrast, Earl Aiken typically chooses to work inside the busy entrance to the AC Value Center at a table where he concurrently etches baleen and sells his work to passerby. The most activity takes place in the Traditional Room of the IHC where four or five artists can typically be found working on projects and speaking with locals who drop in to visit. During a visit to the IHC, John Heffle (May 2012) of Barrow worked on a mixed-media sculpture integrating a walrus jawbone, whalebone and ivory and expressed appreciation for the camaraderie and feedback given by other artists who work in the Traditional Room (Fig. 22). Baleen etcher Perry Matumeak (May 2012) of Barrow also works in the Traditional Room where he utilizes the shared power tools and displays finished etchings for sale to out-of-town visitors (Figs. 23-24). Artists sell their carvings, baleen etchings and other creations through various venues including the IHC gift store and lobby, AC Value Center, Wells Fargo lobby, and online using Facebook or personal websites.¹¹ Collections of old and contemporary ivory carvings can be viewed in the IHC as well as the Arctic Slope Regional Corporation.

¹¹ Mongoyak 2012:3, Rexford website



Fig. 17. Whitlam Adams in his carving workshop. Barrow, AK. 2012.



Fig. 18. Ivory and baleen necklaces, earrings, bracelets, belt buckles and boxes made by Whitlam Adams. Barrow, AK. 2012.



Fig. 19. Gilford Mongoyak holding an example of his caribou jawbone sled and etched baleen wolf scare he makes and sells. Barrow, AK. 2012.



Fig. 20. The home workshop Gilford Mongoyak shares with his wife and fellow carver Flossie Mongoyak. Barrow, AK. 2012.



Fig. 21. Entrance to the Traditional Room of the Iñupiat Heritage Center. plates can be seen stacked on the ground and leaning up against the siding. Barrow, AK. 2012.



Fig. 23. Perry Matumeak working on a baleen etching inside the IHC. Barrow, AK. 2012.

Fig. 22. John Heffle with his mixed media baleen and ivory sculpture in the IHC. Barrow, AK. 2012.



Fig. 24. Baleen etching with polar bears and a bowhead whale by Perry Matumeak. Barrow, AK. 2012.

Point Hope / *Tikiġaq*

Point Hope's location on a gravel spit jutting 15 kilometers into the Chukchi Sea has exposed the area to continual erosion and forced residents to relocate multiple times across the narrow landscape (Fig. 25). Point Hope connects to Lisburne Peninsula via two gravel bars that extend northwest to the Lisburne Hills and southeast to the headlands of Cape Thompson. The area experiences cold northeast winds with temperatures hovering around -30 F in the winter and 55 F in the summer. The surrounding tundra supports a variety of grasses and low flowering plants such as wormwood, mountain sorrel and saxifrage.¹² Polar bears appear on the pack ice and follow the annual migrations of sea mammals including bowhead whales, walrus, belugas and bearded

¹² As part of a school project in 1996-97, students collaborated with elders in Point Hope, Alaska to compile a guidebook of the area's flowering plants with Iñupiaq names and traditional uses for food and medicine. <http://www.ankn.uaf.edu/ANCR/Inupiaq/pointplant.html>

seals. Murres, gulls, geese, and ducks fly overhead during the spring and nest in the rocky cliffs at Cape Lisburne and Cape Thompson. Brown bear, caribou, wolves, fox and ground squirrels can be found further inland on the peninsula.

Captain Frederick William Beechey named the cape Point Hope in 1826 after Sir William Johnstone Hope. However, many Iñupiat residents continue to refer to the village as Tikig̃aq a reference to the index finger-shaped landmass. Settlement history extends back almost 2,500 years making the peninsula one of the oldest continuously inhabited areas in North America. Outside interest in Point Hope's past accelerated in 1924 when Knud Rasmusson visited the area and mapped 122 houses at Old Tigara (Rasmusson 1927:329). Later excavations from 1939-41 led by Helge Larsen and Froelich Rainey resulted in the uncovering of several Thule houses east of historic Jabbertown and the large coastal-inland settlement of ancient Ipiutak nestled in the lowland between Old Tigara and Jabbertown (Rainey 1939; Larsen and Rainey 1948) (Fig. 26). Local residents carry detailed landscape knowledge of the area's ancient sites and readily discuss discovered artifacts. The area's historical landscape also provides visual inspiration to local artists. Othniel Anaqulutuq 'Art' Oomittuk Jr. (April 2010) of Point Hope carved a wood mask with ivory inlay titled "Isuk" engraved with his memories of the area including the lagoons, mountains and old villages of Tikig̃aq and Ipiutak (Fig. 27). Almost 700 residents currently live in Point Hope and many villagers identify with the two remaining clans known as Kamaktoaq and Uniqsiksiicauq (Henry Koonook April 2010; Rainey 1947:240-1).



Fig. 25. Aerial view of Point Hope, AK with an open strip of the Chukchi Sea. 2010.



Fig. 26. View of Old Tigara at Point Hope, AK. The remains of a sod house can be seen in the background. 2005.



Fig. 27. "Isuk." Carved mask by Othniel Anaqulutuq 'Art' Oomittuk Jr. Basswood and ivory. W 17.8, H 28, D 24 cm. Photograph courtesy of the Alaska Native Arts Gallery.

Based on tool assemblages found at Ipiutak (A.D. 400-900), ancient carvers in the Point Hope area did not use drill bows but relied heavily on the use of an adze, flint and a slender stylus to carve and engrave delicate designs on ivory. The first known drill bows originate during the Tigara period (A.D. 1200-1400) and are typically undecorated ivory or bone. By the early nineteenth century, Point Hope carvers had adopted the use of pictorial engraved drill bows as indicated by engraved implements obtained by Frederick Beechey in 1826. Collector John Hackman co-operated a shore-based whaling station in

Point Hope between 1889-1905 and obtained an early engraved drill bow with a carved whale's fluke on the end (Fig. 28). The mineralized ivory drill bow features transitional period engravings from Punuk style barbed lines and nucleated circles to more modern motifs of lightly incised caribou, wolves, whale flukes and figures. Likewise, Sheldon Jackson acquired a late nineteenth century ivory drill bow from Point Hope that features a carved whale's fluke as well as large motifs of caribou and whaling heavily darkened with scribble hatching (Fig. 29). Despite the increasing availability of power tools in the second half of the twentieth century, many carvers in Point Hope continued to rely on traditional hand tools. A photograph from the 1950s shows carver Charlie Ayapana using a drill bow to work ivory while a young child observes from the corner (Fig. 30). Point Hope carvers also adopted the use of drill bows to create new objects for the art market. A 1968 photograph illustrates Andrew Tooyak Sr. using a drill bow to work a small piece of ivory, possibly a bracelet link, similar to the finished bracelet on the table (Fig. 31).

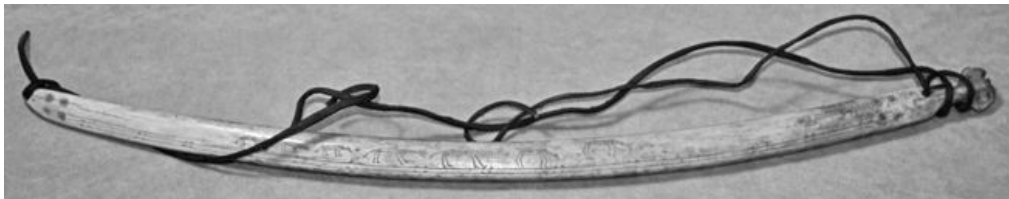


Fig. 28. Engraved ivory drill bow with bearded sealskin strap. Collected by John Hackman from Point Hope. NMAI 4488.



Fig. 29. Engraved ivory drill bow with a carved whale fluke and bearded sealskin strap. Collected by Sheldon Jackson from Point Hope. SJM SJ-II-K-106.



Fig. 30. Charlie Ayapana carving ivory with a bow drill while a child observes from around the corner. Point Hope, AK. 1953-58. Archives, University of Alaska, Fairbanks, UAF-2001-129-56.

Fig. 31. Andrew Tooyak Sr. carving ivory with a bow drill. His carving space includes a wood toolbox, chisel, vise, sandpaper, thread, and a finished ivory bracelet on the table. Photograph taken in Point Hope, AK by Steve McCutcheon, 1968. Anchorage Museum at Rasmuson Center, B1990.14.5.AKNative.2.13.

Contemporary carvers of Point Hope incorporate electric tools into their toolkits but traditional implements such as drill bows and adzes retain a special significance. Local carver Henry Koonook uses a bone drill bow with a bearded sealskin strap to carve bracelet links or holes for cribbage boards (Fig. 32).¹³ Koonook (April 2010:2) shares, “Most of my carvings are done by hand with hand tools. I also incorporate modern tools like the Foredom or Dremel...My favorite tool is an adze. We know it as *ulimaun*. It’s a great tool because you can use it to carve wood. You can use it to carve bone. I use it when I carve driftwood masks or when I’m getting ready to carve on a tusk.” Koonook hunts mammals, scours the landscape, and trades to acquire natural

¹³ A photograph of Henry Koonook’s tool bench was included in the 2012 project binder and several carvers from other communities looked closely at the photograph describing the different hand tools. Gilford Mongoyak (May 2012) recognized some of his old tools in the photograph and recalled a television program featuring Point Hope carvers demonstrating traditional tools.

materials like whalebone, ivory, red ocher and polar bear fur to create ivory carvings, baleen etchings and whalebone masks (Fig. 33).

Henry Koonook credits elder relatives for imparting knowledge about the traditional Tikiġaq lifestyle. His father, Luke Koonook Sr., served as a successful whaling captain, and has spent over forty-five years weaving variegated baleen baskets of a distinct oval shape and carving ivory finials of polar bears, walrus and whale's flukes.¹⁴ Other local artists also take advantage of the relative abundance of baleen and save the scarcer bits of ivory for lid finials and bottoms of baleen baskets. Lee Harris works subtle shading into his baleen baskets and carves detailed ivory finials such as a hunter pulling a seal through the ice secured to the lid of a square basket (Fig. 34).

Contemporary artist Art Oomittuk Jr. may be the most well known carver from Point Hope in recent years. Oomittuk (April 2010) works in a variety of media including wood, ivory, and marble and specializes in carving masks that evoke the character of nineteenth century North Alaska whaling masks (Fig. 35). Carvings often retain the artist's tool marks and Oomittuk, who recalls his grandfather using a drill bow, noted he had an in-process drill bow on which he was working. Oomittuk's older brother, Alzred Steve Oomittuk (April 2010) or Point Hope also carves, but stays busy as mayor of Point Hope and enjoys spending free time looking for artifacts along the eroding shoreline. Similarly, Robert Dirks Sr. (April 2010) noted he had two ivory tusks waiting to be carved but experienced difficulty finding time in between working at the school and subsistence activities.

¹⁴ For a thorough discussion of baleen basketry see Molly Lee, *Baleen Basketry of the North Alaskan Eskimo*, (Seattle: University of Washington Press, 1998).

Point Hope does not maintain a community artist workshop and most carvers work at home and occasionally in the vocational shop room at the Tikigaq School. Carvers-in-training may visit the homes of elder carvers as noted by Scottie Frankson who enjoys watching his uncle Henry Koonook “Hanko” while he works on projects. Carvers frequently sell their creations to the Tikigaq Corporation, local teachers, or visitors. Some pieces get sent to outside galleries including the Sulianich Art Gallery in Kotzebue and the Alaska Native Arts Foundation in Anchorage. The school displays a few items of local artwork along with a collection of artifacts in the cultural classroom. Other artifacts are proudly displayed or brought out for visitors in the homes of local residents including Henry Koonook and Steve Oomittuk.



Fig. 32. Henry Koonook in his carving workshop. Point Hope, AK. 2010.

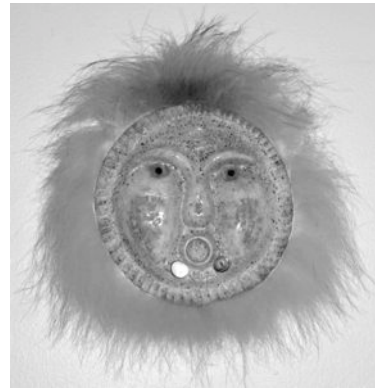


Fig. 33. Carved whalebone mask with mineralized ivory eyes and labrets trimmed with polar bear fur by Henry Koonook. 2010.



Fig. 34. Baleen basket with carved ivory finial by Point Hope artist Lee Harris. 2005.

Fig. 35. Art Oomittuk modeling a mask he fashioned from bearded sealskin. His carvings on the table include an ivory polar bear, wood mask, and a bone, ivory and baleen sculpture titled “Whale Shaman Staff.” Point Hope, AK. 2010.

Kotzebue /Qikiqtaġruk

Crunching through the snow in Kotzebue during March 2012, I listened to the wind whip across the frozen Kobuk Lake and carry the sound of dog teams from the edge of town (Fig. 36). The town of Kotzebue lies on a gravel spit at the northwest end of Baldwin Peninsula, an undulating strip of land that extends 72 km from Seward Peninsula into Kotzebue Sound. The Selawik and Kobuk Rivers drain into Hotham Inlet off of Kotzebue’s eastern shores while the Noatak River enters Kotzebue Sound to the north. The area has a subarctic climate defined by long, cold winters with highs around 3 F and mild summer temperatures around 60 F.

Kotzebue’s location provides residents access to resources from the land and sea. The surrounding tundra fills with flowering grasses and salmonberries during the summer. Caribou can be found in the area almost year round in addition to brown bear, moose, musk ox, wolves, fox, lynx and ptarmigan. Seals and occasional beluga swim nearby in addition to large numbers of chum salmon, grayling, tomcod and sheefish.

During the summer, thousands of migratory birds including Tufted puffins, Black-throated divers and Red-throated loons arrive and nest in the hundreds of tundra lakes and ponds.

Steadily pursuing the possibility of a Northwest Passage in 1818, Russian explorer Otto von Kotzebue (1967) searched sound that now carries his name. Archaeological sites at Kotzebue point to the area being occupied by Iñupiat peoples from at least the fifteenth century. Due to the village's location at the base of a peninsula, Kotzebue served as a trading center for hundreds of years. Accounts from the nineteenth century, describe inland peoples bringing fur, seal-oil, hides and fish to trade while communities from Eastern Siberia brought ivory, ammunition, metal, reindeer hides. As Westerners moved north into Alaska, whaler, traders, gold seekers and missionaries expanded Kotzebue's role as a trading center and cultural hub. Today 3,200 residents live in Kotzebue, which serves as a northwestern hub for Alaska Airlines and continues to be a gathering location for Native communities (Fig. 37).



Fig. 36. A snowy street in Kotzebue, AK with Maniilaq Health Center at the end of the road. 2012.



Fig. 37. Sulianich Art Gallery. Kotzebue, AK. 2012.

Otto von Kotzebue represents the first known explorer to collect engraved drill bows from Kotzebue Sound in 1816. During the summer of 1826, the HMS *Blossom* sailed close to Hotham Inlet where Captain Beechey, Edward Belcher and George Peard

also acquired a number of drill bows. However drill bows acquired by the *Blossom* crew feature a distinctly different style of engraving than those collected by Kotzebue suggesting the *Blossom* encountered visitors to the summer trade fair and the bows originated in a different location, possibly from Cape Prince of Wales and Siberian Yupik carvers in East Cape (see Ch. 2). Edward Nelson made another substantial collection of drill bows in Hotham Inlet and these bows share direct similarities with ones acquired by Otto von Kotzebue.

Few records describe ivory carvers at Kotzebue during the heady days of the Nome Gold Rush.¹⁵ Until the late 1950s, an annual trade fair continued to be held at Kotzebue during which time Native visitors would arrive to exchange marine mammal and land products, socialize with friends and family and carve ivory in the free time. Ross Schaeffer Sr. (April 2012) of Kotzebue recalls villagers from Little Diomedede arriving every summer to camp on the beach where they would carve under their skin boats and dance in the evening.¹⁶ One of these Little Diomedede visitors was Oscar Ahkanza who used a drill bow to carve ivory cribbage boards, bracelets and umbrella handles in the 1950s (Fig. 38). Schaeffer remembers watching Charlie Ayapana and other Little Diomedede carvers use bow drills, which he tried but never adopted for professional use. Contemporary carvers in Kotzebue use a few hand tools with the rough work done mostly with power tools accompanied by the use of a Dremel or Foredom.

¹⁵ It could be the last whaling ships had finally succeeded in driving the walrus far enough west to be out of easy reach of Kotzebue hunters resulting in a low ivory supply. Or perhaps carvers turned to wage employment with the growing modernization of the town.

¹⁶ Ross Schaeffer Sr. (April 2012) explains visitors from Little Diomedede stopped coming to Kotzebue in the 1950s following an incident in which local boys took knives and cut the skins on the visitors' umiat.



Fig. 38. Oscar Ahkanza from Little Diomed carving ivory with a bow drill on the beach in Kotzebue. Photograph by Amos Burg with the caption “In summer, Oscar sails to Kotzebue to fish, trade, and carve walrus tusks into cribbage boards, boxes, cigarette holders, bracelets and umbrella handles.” (from Burg 1952:68).

Walrus no longer frequent Kotzebue Sound so carvers tend to utilize whalebone, baleen and caribou bone. Carvers also incorporate beach found ivory or mastodon ivory into larger bone sculptures. Carving in Kotzebue appears to have waned twenty years ago as noted by Thomas Barr (April 2012) of Nome who lived in Kotzebue during the 1980s and recalls there only used to be a few carvers in town. The creation of the Sulianich Art Gallery along with the adjoining carver’s workshop appears to have revitalized ivory and bone carving, particularly with younger carvers such as Kevin Norton who come to Sulianich to work on projects (Fig. 39).

Etching on ivory is rarely practiced anymore in Kotzebue. Of the seven carvers I spoke with in Kotzebue, none of them etched. However, new mediums have taken the place of ivory in relaying oral stories and information on the physical environment. Enoch Evak (March 2012) of Kotzebue began drawing as a child and transferred his skill to etching baleen (Fig. 40). He now creates detailed and life-like scenes of Arctic animals including polar bears, caribou and lynx. He works mostly from published images and

while visiting he etched a scene from a photograph depicting a local elder lady fishing for tomcod on Kobuk Lake. Ross Schaeffer continues the tradition of carving seasonal scenes of whaling, hunting and fishing. While Schaeffer works primarily with ivory and bone, for several years he has enjoyed carving scenes in wood and during 2012 worked on a birch panel for the Noatak School (Fig. 41). While carving, Schaeffer (April 2012) shared stories about hunting for caribou and described the season portrayed and the activities that were taking place. Jon Ipalook (April 2012) of Kotzebue carves baleen and ivory animals (Fig. 42).



Fig. 39. Kevin Norton carving an ivory knife in the Sulianich Art Gallery. Kotzebue, AK. 2012.



Fig. 40. Enoch Evak etching caribou on baleen in the Sulianich Art Gallery. Kotzebue, AK. 2012.



Fig. 41. Ross Schaeffer carving a fall scene into a birch panel in Kotzebue, AK. 2012.



Fig. 42. Jon Ipalook with his ivory and baleen carvings. Kotzebue, AK. 2012.

Shishmaref / *Qigiqtaq*

Dramatically eroding shorelines around the Native Village of Shishmaref reveal the community's fragile position on Sarichef Island, part of a 100 km long barrier island chain off of northern Seward Peninsula (Fig. 43). Directly west stretches the formidable Chukchi Sea while Shishmaref Inlet nestles to the east fed by the Serpentine and Arctic Rivers.¹⁷ Shishmaref experiences a humid subarctic climate characterized by cool summers and overall low temperatures resulting in seven months of variable ice formations. Clouds typically cast shadows over the island's small freshwater ponds and rolling tundra caused by the rise and fall of permafrost. Various mosses, lichens and dwarf shrubs dot the sparse landscape enlivened with a brief flowering season featuring salmonberries, crowberries and blueberries.¹⁸ Marine mammals including several varieties of seal, walrus and gray whale populate the icy sea while nearby lakes and rivers hold freshwater and anadromous fish such as grayling, smelt, whitefish and salmon (Fig. 44). Traveling hunters come across moose, musk ox and reindeer while a wayward brown bear or polar bear might be spotted on the end of the island.¹⁹ Small mammals include Arctic hare, ground squirrel, red fox and marten. Horizons darken during the spring with migratory birds including black brant, old squaw ducks, eider, pintail and several varieties of geese. Despite shifting currents and the threat of rotten ice, young men, such

¹⁷ Scientific studies over the past thirty years have used Shishmaref as a case study for climate change, altering ice conditions, and erosion linked to temperature fluctuations.

¹⁸ For detailed descriptions and community use of Shishmaref's flora and fauna see, Sobelman, Sandra S. 1985. The economics of wild resource use in Shishmaref, Alaska. Technical Report No. 112. Alaska Department of Fish and Game, Division of Subsistence, Fairbanks, Alaska.

¹⁹ Some of these were once reindeer from Siberia that mixed with the Alaskan caribou herds. In the 1980s, Sobelson reported a gradual return or increase of the Alaskan caribou herd back into the surrounding area. Edwin Weyiouanna (June 2012) stated hunters distinguish reindeer by their shorter legs and stockier bodies.

as Bert Sockpick of Shishmaref take flying snowmachine trips over to Egg Island to secure ducks and eggs for appreciative family members.

Otto von Kotzebue visited the village known in Iñupiaq as *Qigiqtaq* on July 4, 1816, naming the landmass Sarichef Island and the seemingly deserted village Shishmaref after his lieutenant Gleb Shishmarev.²⁰ Shishmaref experienced an economic boon around 1900 as it handled supplies for gold mining activities in southern Seward Peninsula. Out of a current population of 560, Shishmaref includes one of the densest populations of ivory and whalebone carvers in Northwest Alaska. The Friendship Center started by Melvin Olanna in the 1970s closed several years ago and contemporary carvers work mainly from their homes. Roy Sockpick (June 2012) of Shishmaref comes from a family of carvers (Fig. 45). Stanley Tocktoo (June 2012) of Shishmaref makes ivory bracelets and carved ivory bears (Fig. 46). Edwin Weyiouanna (June 2012) of Shishmaref also has familial carving roots and demonstrated the start to finish process of creating a whalebone mask inset with ivory surrounded by a polar bear ruff. In addition to offering stories about old ivories and contemporary carving, Weyiouanna and his sister readily shared of their delicious dried ugruk meat. In Shishmaref, many carvers worked speedily to complete projects while waiting for breakup to head out walrus hunting. Local carvings are sold in the Nayukpok Store in addition to being sold by commission through Percy Nayukpok and Dennis Sinnok. Family members may also sell their work for each

²⁰ Kotzebue's exploring party came across several empty dwellings giving rise to the idea the village was deserted. However, villagers could have been busy at fish camp or traveling to a summer trade fair. Sobelman (1985:30) and others suggest the villagers might have been in hiding but this is unlikely due to the familiarity with Russian traders by the nineteenth century and the generally open response shown by Alaska Natives to Western explorers.

other such as patriarch Davis Sockpick, a retired carver, who visits crafts fairs and sells the ivory and bone carvings of his sons and grandsons.



Fig. 43. Looking across the tundra at the Native Village of Shishmaref, AK. 2012.



Fig. 44. Thomas Ahgupuk holding up a bearded sealskin net made by his great-grandfather John Ahgupuk. Shishmaref, AK. 2012.



Fig. 45. Roy Sockpick filing a carved whalebone figure. Shishmaref, AK. 2012.



Fig. 46. Stanley Tocktoo holding two of his carved ivory bracelets. Shishmaref, AK. 2012.

Nome / *Sit̄hasuaq*

Located on the southern shore of Seward Peninsula, the city of Nome (*Sit̄hasuaq* in Iñupiaq) experiences a subarctic climate with long winters and short summers moderated by coastal breezes from the Bering Sea. The area surrounding Nome consists of almost treeless arctic tundra, which merges into sloping hills, lowlands, valleys, lakes,

lagoons and mountain ranges including the nearby Kigluaik Mountains (Fig. 47).²¹ Not far from town, a number of small rivers including the Snake, Sinuk, Nome and Eldorado Rivers drain into Norton Sound. Scattered spruce trees and tall willows appear along riverbanks while tundra meadows feature colorful blueberries, salmonberries, cranberries, fireweed and sourdock. Moose, brown bear, herds of musk ox and open range reindeer ramble across the hillsides and tundra, every so often passing through the outskirts of town. Marine mammals frequently seen include beluga, small harbor porpoise, spotted seal, ringed seal and bearded seal with an occasional walrus brought back from around Sledge Island or King Island. Ptarmigan are present year-round while spring migrations fill the air with sounds of waterfowl and shorebirds including Arctic tern, common eider, black-legged kittiwakes and Lapland longspurs. Schools of salmon, Dolly Varden, herring, capelin and tomcod appear with the changing seasons with king crab harvested in spring through holes in shore-fast ice.

Once the most populated city in Alaska, the current day town of Nome has approximately 3,600 residents who make the town home for a number of reasons (Fig. 48). Nome was incorporated in 1901 following an influx of gold seekers for the Nome gold rush. Long before modern day Nome, Bering Sea communities traveled to Cape Nome forty miles farther south along the coast to trade (Fig. 49). Smithsonian collectors Edward Nelson and Lucien Turner both recorded acquiring objects from Cape Nome and nearby Sledge Island. Contemporary community members in Nome do not recall anyone from Sledge Island. Today, hunters use Sledge Island as a staging area or halfway point

²¹ For a thorough discussion of Nome's wildlife habitats see Anne Sutton and Sue Steinacher, *Alaska's Nome Area Wildlife Viewing Guide*, 2012, Juneau, Alaska Department of Fish and Game.

fro travelling out to King Island. During the 1960s, the BIA officially closed the school on King Island and many King Islanders resettled on the east end of Nome (Fig. 50). Nome is now home to carvers from many communities including King Island, Little Diomedede and Shishmaref.



Fig. 47. Looking north across the tundra at the Kukorok Mountains. Nome, AK. 2012.



Fig. 48. Buildings along Front Street in Nome, AK. 2012.



Fig. 49. A group of summer travelers under an umiaq at Nome. The man in the center uses a bow drill with additional carving tools on top of the wood toolbox. Various articles hang from the umiaq including a cotton shirt, sealskin mukluks, a gutskin parka and wolf skins. Photograph by Alfred G. Simmer, 1905. Alaska State Library, Historical Collections, ASL-P137-025.

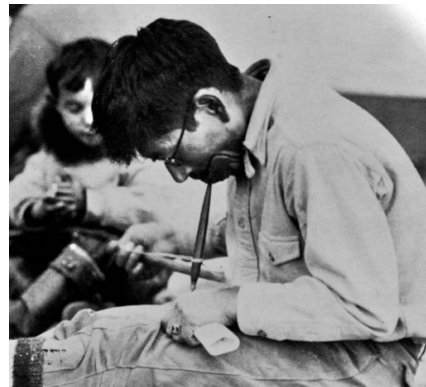


Fig. 50. Frank Ellanna uses a bow drill to make holes for an ivory cribbage board. King Island, AK. Photograph by Father Bernard R. Hubbard, S.J., 1937-38 (from Kaplan 1988:115).

While in Nome during spring and fall of 2012, many visits took place at the King Island community building (Figs. 51-52). The building has a small carving shop where four to five carvers work regularly on projects punctuated with stories told in the Ugiuvangmiut dialect (Figs. 53-54) After looking through photographs of ivory engravings, Jerome Saclamana became inspired to use a metal etcher and Dremel to engrave two old style pictorial scenes based on drill bows in the Smithsonian NMNH. Nome also afforded opportunity to visit carvers from other villages including James Omiak (April 2012) of Nome originally from Little Diomedé who utilized a drill bow his entire career and became well known for his finely carved animal bracelets



Fig. 51. Francis Alvanna discussing ivory carving on King Island and in Nome. Nome, AK. 2012.



Fig. 52. Thomas Barr with his daughter and carved ivory earrings. Nome, AK. 2012.

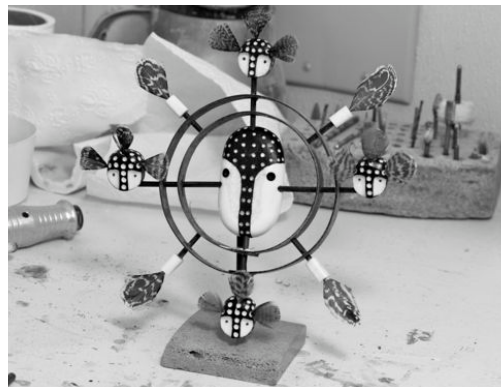


Fig. 53. Matthew Tiulana carving a small ivory mask. Nome, AK. 2012.

Fig. 54. “Wolf Spirit Mask” by Matthew Tiulana. Ivory masks, baleen hoops, ptarmigan feathers and whalebone base. Nome, AK. 2012.

St. Michael / Taciq

The village of St. Michael (*Taciq* in Central Yup'ik) rests on the eastern tip of St. Michael Island, cut off by a narrow channel from the surrounding Yukon/Kuskokwim lowland (Fig. 55). The village faces St. Michael Bay located in the southeastern end of Norton Sound. A subarctic climate prevails with snowy winters from -4-16 F and rainy summers from 40-60 F accompanied by ice-free waters from early June to mid-November. Flat marshland and rolling hills support a moist tundra carpet with sedges, grasses, Dwarf birch, low willows, Labrador tea, blueberries and crowberries. Moose, caribou, domesticated reindeer and small mammals such as fox and hare travel across the terrain. Harbor and bearded seals, beluga, salmon, herring, tomcod and crab typically swim in nearby waters with walrus occasionally spotted farther out into Norton Sound. Springtime brings migratory birds including snow geese, speckled belly geese, ducks, snipes and sandpipers.



Fig. 55. Looking across the bay at the eastern end of St. Michael, AK. 2012.

In 1833, the Russian Commercial Company established a stockade post at St. Michael named Michaelovski after a governor of the Russian-American colony (Fig. 56). The post soon acquired the name Redoubt St. Michael and represented the northernmost Russian settlement in Alaska. Beginning in the 1870s, St. Michael functioned as the headquarters for the Alaska Commercial Company and command post for Smithsonian collectors Lucien Turner and Edward Nelson (Fig. 57). Likewise, Charles Hall and Francois Mercier, agents for the ACC acquired large collections while stationed at St. Michael. Today the nineteenth century structures primarily remain in photographs and elders' memories but remains of wrecked paddle steamers can still be seen off the coast.

Located at the southern end of Norton Sound, St. Michael includes a diverse community of Iñupiaq and Central Yup'ik speaking individuals. Carver Albert Matthias (April 2012) of St. Michael and his wife Flora have Iñupiaq and Yupi'k speaking backgrounds (Fig. 58). Flora Matthias discussed the difficulty in developing language resources for school, as community members could not agree on the correct pronunciation of words. Damian Tom (April 2012) of St. Michael catches gray whales in nets (Fig. 59). St. Michael residents can take about a 45-minute trip on the one main road to their sister town of Stebbins where the majority of local dancing and feasting takes place. Carver Joe Akaran (April 2012) of St. Michael expresses difficulty in obtaining ivory due to scarcity of walrus in the area resulting in most local carvers producing small items (Figs. 60-61). Albert Matthias (April 2012) often searches for ivory on the beach and specializes in carving jewelry items such as pendants and earrings.



Fig. 56. Alaska Commercial Company post at St. Michael, originally the Russian-American Fur Company compound. A group of Natives and a Non-Native woman are gathered at the gate and peer at Edward Nelson taking the photograph. 1880. National Anthropological Archives, Smithsonian Institution, NAA INV 01428200.

Fig. 57. Remains of an Alaska Commercial Company-era building at St. Michael, AK. 2012.



Fig. 58. Albert Matthias and a number of his ivory carvings including a pair of basket sled earrings. St. Michael, AK. 2012.



Fig. 59. Damian Tom points out where he caught a gray whale in his fishing net. St. Michael, AK. 2012.



Fig. 60. Joe Akaran discussing ivory carvings in St. Michael, AK. 2012.



Fig. 61. Carved ivory pendant by Joe Akaran. St. Michael, AK. 2012.

Anchorage / *Dgheyaytnu*

Located in South central Alaska, the city of Anchorage (*Dgheyaytnu* in Dena'ina) stretches across a strip of coastal lowland and rises eastward up the rolling foothills of the Chugach Mountains (Fig. 62). Mudflats cover the city's western shoreline extending north into Cook Inlet and south into Turnagin Arm. The city experiences a subarctic climate with mild, frequently rainy summers averaging 55-78 F and cool, snowy winters hovering around 5-30 F. Spruce forests and alpine slopes abound in native plants and flowers including fiddlehead ferns, lupine, goldenrod, larkspur, blueberry and mountain cranberry. Moose frequent urban areas while the mountains and forests sustain black bears, grizzly bears, wolves, fox, Dall sheep, and hundreds of bird species including nesting bald eagles. Beluga, humpback whales and halibut swim in waters off the coast and summer brings an abundance of salmon, rainbow trout and Dolly Varden to nearby lakes and creeks.



Fig. 62. View of downtown Anchorage from Cook Inlet with the Chugach Mountains in the background. Photograph by Jason Taylor.

For over a thousand years, the greater Anchorage area has been the traditional homeland of the Dena'ina people who first settled in the Upper Cook Inlet basin around 500-1000 AD. In 1914, the Alaska Engineering Commission chose a site near the mouth of Ship Creek for a railroad construction port giving birth to a tent city eventually moved southward to higher ground where the city of Anchorage was incorporated in 1920. The city experienced rapid growth in the following decades stemming from increased air transportation, military activity, and the 1968 discovery of oil in Prudhoe Bay. Today the Anchorage borough and city encompasses nearly 2,000 square miles with a diverse population of approximately 300,000 residents.

A number of Iñupiat ivory carvers live and work within the Anchorage area where they can sell their work to local galleries, museum shops and craft fairs. In the 1960s, Paul Tiulana from King Island moved his family to Anchorage and opened a carving shop downtown (Fig. 63). Today, brothers Matthew and Justin Tiulana continue to live in Anchorage and carve ivory dancers as well as a variety of animals (Fig. 64). Richard Lonsdale grew up in Anchorage where he watched his grandfather carve ivory faces for his mother's dolls and where he learned to etch on ivory from his uncle. Lonsdale creates

detailed etchings of animal portraits on ivory and recently turned to carving wood masks (Fig. 65). I also enjoyed visiting with carver and watercolor artist Ken Lisbourne (June 2012) of Anchorage who moved from Point Hope and travels to local shows to sell his prints. Levi Tetpon (June 2012) of Anchorage carves ivory sculptures integrating various natural materials. Tetpon contributed his thoughts on collections in the Anchorage Museum during a research visit where he shared knowledge about older ivory carvers and regional style variations. The majority of Anchorage carvers work within their homes but the Arctic Bed and Breakfast in downtown Anchorage run by Wayne Hanson provides a communal carving shop in the back yard where carvers from Shishmaref, Gambell and other villages use tools and materials often exchanging finished carvings for room and board.



Fig. 63. Paul Tiulana carving ivory with a bow drill inside a store he opened in Anchorage during the early 1970s called the Tiulana Gift Shop (from Montague 1971:6).

Fig. 64. Ivory carvings by the Tiulana family in the Alaska Native Medical Center: Eugene Tiulana, *Bird Rookery*; Paul Tiulana, *Emperor Geese*; Justin Tiulana, *Bird Ring*; Tom Tiulana, *King Island Dancers*. Anchorage, AK. 2012.



Fig. 65. Caribou, walrus and moose engravings on ivory by Rick Lonsdale in the Alaska Native Medical Center. Anchorage, AK. 2012.

Overall, community-based work in Alaska provided invaluable knowledge about ivory acquisition and preparation, carving toolkits, drill bow construction and engraving methods, stories behind motifs, and the import of museum-community partnerships to foster projects of value to both academic and indigenous communities.

CHAPTER 2

DRILL BOW COLLECTORS AND SHIFTING MODES OF ACQUISITION

As the HMS *Blossom* approached the village of Point Hope in August 1826, Frederick W. Beechey (1968:367) observed, “Every yourt had its rafters for placing sledges, skins of oil, or other articles upon in the winter time, to prevent their being buried in the snow. The number of these frames, some bearing sledges, and other the skeletons of boats, formed a complete wood, and had attracted our notice at the distance of six or seven miles.” Beechey’s written account of the village at Point Hope and his sketches of collected objects provided contextual inspiration for Frederick’s brother, Richard B. Beechey, who created a watercolor painting with the earliest known depiction of a Bering Strait carver holding an ivory drill bow (Fig. 66a-b). The painting’s printed and handwritten description states, “Jurts and Natives (Esquimaux) of Point Hope near Cape Lisburne Behring’s Straits” with the date “August 5, 1826.”

The painted scene illustrates a Point Hope family outside a sod house during the summer engaged in various activities. The girl on the left works in front of a bentwood container while the boy holds a knife and cuts off a piece of meat in his mouth. The standing woman has tattoo lines on her chin and cheeks, wears a gutskin parka over her longer fur parka, and appears to be dancing. The man with two labrets raises a round skin drum in his left hand while his right hand holds an ivory drill bow with a skin strap.²² Behind the group, storage racks made from bowhead whale ribs hold various articles

²² A similar round skin drum and ivory drill bow appear in the sketch of northern Alaska objects drawn by Frederick W. Beechey (see Fig. 73).

including a sealskin poke, two conical fish traps, a bundle of hide rope, a hunting bow, an ivory-tipped ice tester, and a large sled.

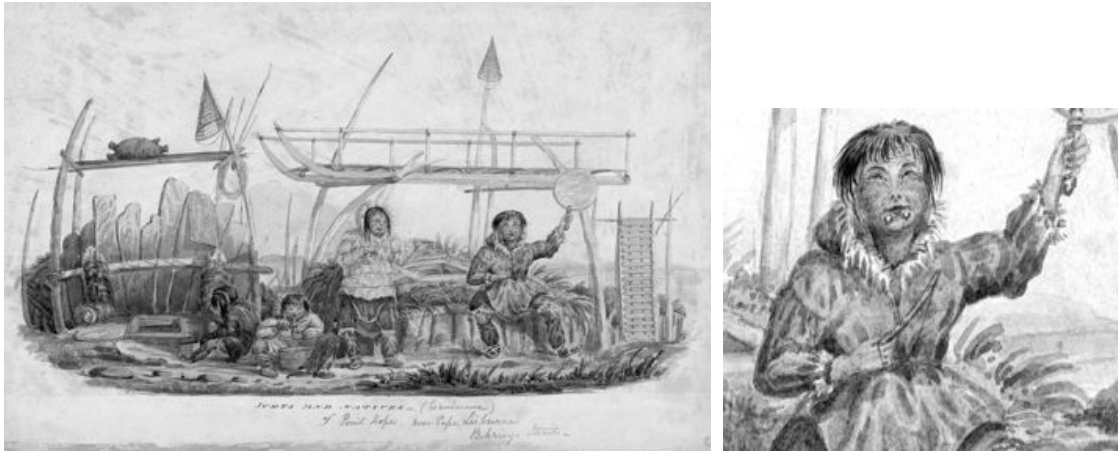


Fig. 66a-b. "Jurts and Natives (Esquimaux) of Point Hope near Cape Lisburne Behring's Straits." Watercolor by Richard Brydges Beechey. Dated August 5, 1826. L 43, H 28 cm. Courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University, number 41-72-10/26 (digital file# 99050062).

Frederick W. Beechey and additional crewmembers of the HMS *Blossom* obtained fifteen engraved drill bows during their voyage through the Bering Strait in 1826-27. Engraved drill bows held particular appeal to collectors for a variety of reasons. The drill bows derived from the exotic material of walrus ivory, and the bows, as well as other engraved ivories, were small enough to be easily packed and transported home. As implements of daily use the bows appear to have lacked a religious aura making them easier to acquire than ceremonial objects. Pictorial imagery on drill bows also depicted activities and lifestyles disparate from the lives of collectors and signified "otherness" to European viewers. The realistic motifs also represented a visual system Non-Native viewers could connect with and evaluate aesthetically.²³ Within Native communities, the

²³ Realistic imagery connected to Bering Strait visual categories perhaps offered a more approachable system than that of abstract or formline design from Southeast Alaska.

engraved scenes functioned as pneumatic devices to aid in the retelling of stories. In a similar manner, explorers could point to the engraved imagery and retell their own observations or tales of Bering Strait villages, pointing figures dancing, killing caribou and hunting whales.

Explorers, field collectors and traders obtained almost four hundred pictorial engraved drill bows from the Bering Strait during the late eighteenth to early twentieth century (Appendix D).²⁴ Detailed examination of 286 of these drill bows revealed thirty-seven locations of acquisition by collectors from general areas such as “Norton Sound” to attributions of specific villages such as “Point Hope” and “Sledge Island” (Table 1; Appendix E). Collectors acquired the drill bows under various circumstances and with changing motives reflecting ideologies of exploration and power, salvage ethnography, financial opportunity, and personal interest.

²⁴ For purposes of this project, the term “pictorial” engraving refers to representational figures, animals, and objects as compared to “geometric” or “graphic” engraving defined as abstract, linear shapes and designs.

Table 1. Recorded collector locations of pictorial engraved drill bows.



Location Collected	No. Drill Bows	Location Collected	No. Drill Bows
Alaska (General)	93	<i>Nubviukhchugaluk</i>	2
Norton Sound (General)	33	Nunivak Island / <i>Nuniwar</i>	2
Kotzebue Sound (General)	23	<i>Pastolik</i>	2
Cape Nome / <i>Ayasayuk</i>	15	Amchitka	1
Point Barrow / <i>Nuvuk</i>	15	Anvik / <i>Gitr'ingith Chagg</i>	1
St. Michael / <i>Taciq</i>	13	Barrow / <i>Utqiagvik</i>	1
Cape Darby / <i>Atnuk</i>	10	Canada	1
Cape Prince of Wales / <i>Kinjigin</i>	10	Chukotka	1
Point Hope / <i>Tikigaq</i>	10	Elim / <i>Neviarcaurluq</i>	1
Sledge Island / <i>Aziak</i>	8	Golovin / <i>Sijik</i>	1
Port Clarence	7	Icy Cape / <i>Kiyuksukuveet</i>	1
Diomed Islands	5	Indian Point, Siberia / <i>Uni'sak</i>	1
Nome / <i>Sitnasuaq</i>	4	Lower Yukon River	1
Hotham Inlet	3	Seward Peninsula (General)	1
<i>Kigiktaulik</i>	3	Shishmaref / <i>Qiqiqtaq</i>	1
Little Diomed / <i>Inaliq</i>	3	Sitka / <i>Sheet'ka</i>	1
Shaktoolik / <i>Saktuliq</i>	3	St. Lawrence Island / <i>Sivuuq</i>	1
Unalakleet / <i>Unalaqliit</i>	3	Wainwright / <i>Ulguniq</i>	1
Aklavik / <i>Aklavik</i>	2	TOTAL	286
Cape Smythe / <i>Utkiavwiñ</i>	2		

European Exploration and Discovery

Captain James Cook and the HMS Resolution

Engraved ivory drill bows visibly entered the Western world following the 1778 exploration of the Bering Strait by Captain James Cook. Cook embarked on his third voyage in 1776 as commander of the HMS *Resolution* in search of the Northwest Passage. By 1778, the *Resolution*, accompanied by the HMS *Discovery* under the command of Charles Clerk, were sailing up the Bering Strait charting the Alaska coastline from Bristol Bay to Icy Cape. Despite encountering rough weather, the ships made anchor off both Eastern Siberia and Alaska shores allowing Cook and crewmembers to trade for Native-made tools, clothing and other items of Arctic material culture.²⁵ The Bering Strait proved impassable and the two ships turned southward with a final northwest attempt made by the *Discovery* following Cook's death in 1779.

In 1784, Thomas Pennant (1784:144) illustrated an ivory drill bow acquired by Cook with the description, "I have seen a small bow made of bone, which was brought by the navigators from this side of North America, on which was engraven, very intelligibly, every object of the chase." The published image depicts two views of an ivory drill bow with a carved caribou head and four sides engraved with Arctic imagery such as seals, ducks, caribou and hunting bowhead whale (Fig. 67).²⁶ Pennant admired the drill bow's

²⁵ Collections originating from Captain Cook's three voyages experienced a tumultuous history as private collectors and museums purchased, sold and traded objects in their eagerness to secure a piece of famed memorabilia. In 1781, Sir Ashton Levin acquired a substantial portion of the collection made during Cook's third voyage include a full-size Bering Strait kayak. Shortly after purchase, Levin commissioned watercolorist Sarah Stone to illustrate objects from Cook's voyages; several of her paintings of Northwest Coast and Arctic objects appear in Roland W. Force and Maryanne Force, *Art and Artefacts of the Eighteenth Century*, (Honolulu: Bishop Museum Press, 1968). Levin retained his portion of Cook's collection until 1786 and the objects appeared at auction in 1806 (Pearce 1976:17).

realistic depiction of animals and produced his illustration following the recommendation of Daniel Carl Solander, naturalist on the HMS *Endeavour*, “On it [the drill bow] the whole chasse of the savages so well done that I have every animal. Doct. Solander sayed it should be engraved.”²⁷

The drill bow illustrated by Pennant almost certainly originated from Eastern Siberia as noted in the journal accounts of Cook and David Samwell, surgeon aboard the *Resolution*. On August 10, 1778, Cook and several crewmembers followed a group of Chukchi or Siberian Yupik individuals to their village where Cook presented a few trade items in exchange for two fox skins and a couple of “Sea horse teeth” (Beaglehole 1967:411). Samwell provides a more detailed account of the exchange on August 10, stating the explorers purchased “some curious Articles of them, among which were small pieces of Ivory with the images of Dogs & rein Deer drawing Sledges and very ingeniously executed, as were some rings or links of bone cut within each other which are mentioned by the Russians in their Account of Kamtschataka as having been found among the Tsutschki, a People inhabiting the North East extremity of Asia and whom we conclude these people to be.” (Beaglehole 1967:1333).²⁸ Samwell provides the first

²⁶ Pennant’s engravings depict Cook’s collections as isolated specimens in a manner of “decontextualized representation” which Nicholas Thomas (1994:118) argues reflected a European mindset for dehumanizing indigenous peoples and placing primacy on historical explorations of new lands.

²⁷ Pennant to Cannon Douglas, in a letter from 27 January 1784, Egerton MS 2180, f. 128v; information supplied by Dr. Helen Wallis (reproduced in King 1981:27). Daniel Solander served as a naturalist on board the HMS *Endeavour* during Cook’s first voyage to the Pacific Ocean from 1768-1771. Solander began work cataloguing the British Museum’s natural history collections in 1763 and served as Keeper of the Natural History Department at the British Museum from 1773-1782. See Edward Duyker, *Nature’s Argonaut: Daniel Solander 1733-1782: Naturalist and Voyager with Cook and Banks*, (Melbourne: Miegunyah Press; Melbourne University Press, 1998). Solander’s recommendation that Thomas Pennant illustrate the drill bow suggests the drill bow entered British Museum collections by 1784.

known description of a pictorial engraved ivory object, which appears to place the artistic genre on the Siberian side of the Bering Strait.

The British Museum accessioned Cook's ivory drill bow along with other material from the Third Voyage on November 10 and 24, 1780 (King 1981:23). An 1803 collections list from the British Museum includes Cook's drill bow and attributes it to Chukotka, "Model of a bow, from Tschatka, on which is represented many of the employments of those people." (King 1981:20)²⁹ Also in 1803, the British Museum de-accessioned a number of artifacts and sold them through Sotheby's with many items purchased by the Royal Canterbury Museum in Kent (King 1981:39).³⁰ It appears Cook's drill bow formed part of the 1803 Sotheby's sale as the drill bow does not appear on the British Museum collection lists from 1805 and 1817 and Horniman Museum records identify acquiring the drill bow from the Royal Canterbury Museum (Fig. 68).³¹

²⁸ The interlocking rings Samwell mentions probably refer to ivory chains or swivels dating back to ancient ivories from the Old Bering Sea period. Ivory chains appear in the archaeological records of both Eastern Siberia at Uelen and Ekven, as well as Alaska at the Ipiutak site (Larsen and Rainey 1948).

²⁹ Based on the accounts of Cook and Samwell, the drill bow and other ivory carvings probably derived from Siberian Yup'ik peoples living along the coast rather than Chukchi ranging further inland.

³⁰ "6 Chukchi bow drill: The only recorded bow drill is that illustrated by Pennant (see Plate 6); this is no longer in the British Museum." (King 1981:20). The Royal Canterbury Museum is now known as the Royal Museum and Art Gallery in Canterbury, Kent, England. The majority of the Museum's original collections of natural history and ethnology have been distributed to local museums.

³¹ While Pennant's print of Cook's drill bow has been reproduced several times (i.e. Ray 1982), the current project is the first to identify and firmly attribute the Horniman Museum drill bow (27.4.61/32) as the one acquired by Captain Cook in 1778.

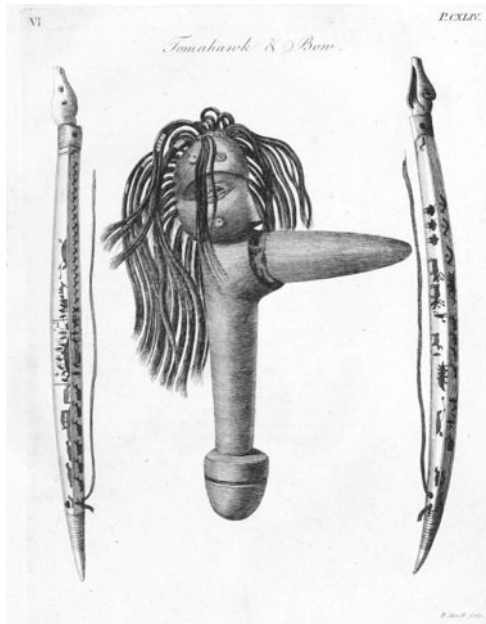


Fig. 67. "Tomahawk & Bow." Two views of an engraved ivory drill bow acquired by Captain James Cook in 1778. A wooden "tomahawk" from Nootka Sound is pictured in the center (from Pennant 1784:Pl. VI).



Fig. 68. Engraved ivory drill bow collected by Captain James Cook in 1778. HM 27.4.61/32.

Otto von Kotzebue and the Rurik

From 1815-18 Otto von Kotzebue, commander of the brig *Rurik*, sailed through the South Pacific and Bering Strait in pursuit of a Northeast Passage. During the summer of 1816, the *Rurik* followed the Alaska coastline north stopping to trade with Native parties off of East Cape, St. Lawrence Island and Kotzebue Sound (Fig. 69).³² Ludovik Choris, artist aboard the *Rurik*, notes that while sailing close to Cape Espenberg on July

³² Kotzebue (1967) provides terse accounts of his collections leaving more thorough descriptions to the ship's artist Ludovik Choris (1822). However, an exchange on July 28, 1816 seems to have particularly impressed Kotzebue (1967:195) as he describes in detail the acquisition of over two hundred gut skin kamleikas off the western shore of St. Lawrence Island, probably from villagers at Gambell.

30, 1816 the ship encountered a number of Native traders requesting large beads in exchange for furs. Unfortunately crewmembers only carried small beads and so relinquished their desire for articles of clothing and weapons and instead traded for a variety of ivory carvings including two engraved drill bows (Choris 1822:10).

Choris (1822:Pl. IV) illustrated the two drill bows in *Voyage Pittoresque autour du Monde. Paris: F. Didot* (Fig. 70).³³ The artist describes the ivory drill bows as, “Representation of two pieces of walrus teeth, indicated, by letters and numbers, the top, bottom and sides; on which are roughly designed their hunts of walrus, seals, whale, their houses, fish dryers [racks], boats; black and red fox skins; reindeer; and finally their dances and games.” (Choris 1822:12).³⁴ The wide drill bow depicts an umiak with a distinctive square sail such as those used by Chukchi around St. Lawrence Bay observed by Kotzebue (1967:262) in 1816, “The sails of their baydares consist of a square piece of leather, and this together with the flat construction of their boats, is the reason they are not able to sail, but with a very good wind.”

Adelbert von Chamisso (1986:87), official botanist for the *Rurik*, notes that Native traders at Cape Espenberg wanted long knives and despite their absence a congenial atmosphere prevailed on August 1, 1816, “Several baidares followed us to the ship, and there we traded and joked with their occupants. They seemed to understand

³³ Ludovik Choris, a German-Russian artist and explorer, produced a series of detailed paintings and sketches illustrating the physical traits, clothing and shelter of indigenous peoples from both sides of the Bering Strait. Several of Choris’ original watercolors are now in the Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, Collection Number WA MSS S-260. Illustrations reproduced in *Voyage Pittoresque autour du Monde* suggest Choris had leisure to examine and arrange the collections after the *Rurik*’s return to Germany. The current location of the two drill bows illustrated in Fig. 70 has not been identified.

³⁴ Original in French; translation by author. The colored print of Plate IV depicts a long row of fox skins in red and black ink suggesting the drill bow incisions were darkened with both red ocher and black soot.

trade very well. They obtained tobacco and less-esteemed trifles from us, such as knives, mirrors, etc., but we were not able to offer them the long knives that they wanted for their valuable furs. From them we were able to obtain ivory articles, figurines of animals and men, various tools, ornaments, etc.”³⁵ Choris (1822:Pl. V) illustrated the small ivories including animals, a figure and a miniature axe and attributed them to Alaskan and Siberian carvers (see Ch. 8, Fig. 299). Kotzebue returned to Russia in 1818 and the location of his ivory carvings remains unknown.³⁶

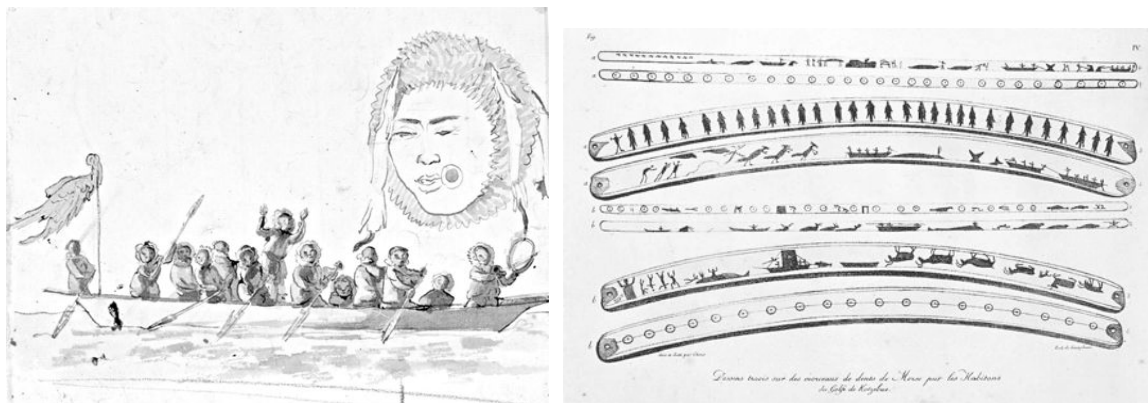


Fig. 69. Bering Strait Natives paddling out to meet the *Rurik* in Kotzebue Sound. The figure in the bow beats a round skin drum, the central figure raises his hands in greeting and the pole displays an animal skin probably signifying the desire to trade. The large portrait depicts a man wearing an ivory labret with a blue bead and a parka adorned with three ermine skins. Pen and ink on paper by by Louis Choris. Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, WA MSS S-260, object id 10556732.

³⁵ Adelbert von Chamisso, a German poet and botanist, kept a detailed diary during his voyage aboard the *Rurik* and in 1835 published his ethnographic observations and scientific records from the expedition in *Tagebuch* (Chamisso 1986).

³⁶ Adelbert von Chamisso (1986:81) describes making collections for the Berlin Anatomical Museum suggesting ethnographic materials also traveled to Berlin and may now be in the Ethnologisches Museum der Staatliche Museen (Royal Berlin Museum). On the other hand, Kotzebue may have deposited the ivory carvings with the Kunstkamera Museum in Moscow following his eventual return to Russia with other objects possibly in the Estonian National Museum of Antiquities in Tallin, Kotzebue’s birthplace and final resting spot.

Fig. 70. “Designs on pieces of walrus teeth from the inhabitants of the Gulf of Kotzebue.” Two engraved drill bows collected by Otto von Kotzebue on July 30, 1816 from Kotzebue Sound. Illustration by Louis Choris (from Choris 1822:Pl. IV).

Frederick W. Beechey and the HMS Blossom

Ten years following Otto von Kotzebue’s report of a suitable harbor in Kotzebue Sound, Captain Frederick W. Beechey navigated the HMS *Blossom* through the Bering Strait on a three-year voyage from 1825-28 in search of a Pacific approach to the Northwest Passage.³⁷ While Beechey’s primary mission was to explore the Bering Strait, he also received instructions to make collections of natural history and ethnological materials. The British Admiralty particularly requested objects for public museums as noted in correspondence to Beechey on May 10, 1825, “it is expected that your visits to the numerous islands of the Pacific will afford the means of collecting rare and curious specimens in the several departments of this branch of science. You are to cause it to be understood that two specimens, *at least*, of each article are to be reserved for the public museums; after which the naturalist and officers will be at liberty to collect for themselves.” (Peard 1973:30).

In 1826, the *Blossom* and a small barge under the command of Lieutenant Edward Belcher, traveled north along the Alaska coastline from Kotzebue Sound to Point Barrow. The *Blossom* encountered various groups of indigenous peoples and traded energetically for furs, weapons, clothing and tools (Fig. 71). Beechey recorded his observations on the land and people and made several sketches of his acquisitions. One of Beechey’s sketches

³⁷ Officers of the *HMS Blossom* included: Captain Frederick W. Beechey, Lieutenant George Peard, Assistant surveyor and supernumerary Edward Belcher, John Wainwright, Master Thomas Elson and Admiralty mate: J. F. Gould, William Smyth and James Wolfe. Beechey’s Pacific assault during 1825-1828 was the third British attempt to chart a Northwest Passage. In 1788 Edward Parry explored Prince Regent Inlet and in 1815 Sir John Franklin led an expedition which traveled down the Mackenzie River to its mouth where Franklin would then travel west and Dr. John Richardson would travel east. (Peard 1973:18).

depicts an assemblage of hunting devices and engraved ivory implements probably originating from Point Hope (Fig. 73). The illustrated drill bow has blue beads and an engraved figure between stretched animal skins while the reverse depicts wolves, three umiat and a bow hunter pursuing two bears (Fig. 74).

On July 22, 1826 the *Blossom* sailed through eastern Kotzebue Sound where the ship encountered a large group of indigenous peoples most likely visiting the summer trade fair at Hotham Inlet. Native carvers offered ivory implements and engraved drill bows to trade which Beechey described:

On the outside of this and other instruments there were etched a variety of figures of men, beasts, and birds, &c., with a truth and character which showed the art to be common among them. The reindeer were generally in herds: in one picture they were pursued by a man in a stooping posture in snow-shoes; in another he had approached nearer to his game, and was in the act drawing his bow. A third represented the manner of taking seals with an inflated skin of the same animal as a decoy; it was placed upon the ice, and not far from it a man was lying upon his belly with a harpoon ready to strike the animal when it should make its appearance. Another was dragging a seal home upon a small sledge; and several baidars were employed harpooning whales which had been previously shot with arrows; and thus, by comparing one device with another, a little history was obtained which gave us a better insight into their habits than could be elicited from any signs or intimations. (Beechey 1968:344)

Upon the *Blossom*'s return to Britain in 1828, a substantial portion of Beechey's Bering Strait collection including drill bow Am1983.27.1 went to the British Museum (Bockstoe 1977). Shortly thereafter in 1832, the Ashmolean Museum in Oxford received a number of objects acquired by Beechey including six engraved ivory drill bows (Fig. 72).

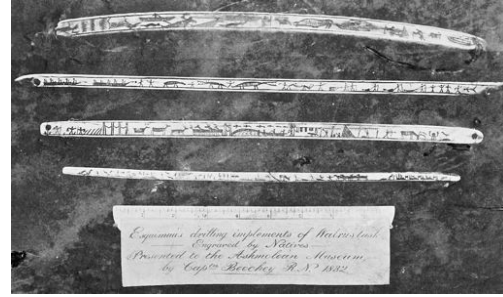


Fig. 71. “Natives of Elson’s Bay” near Point Barrow, Alaska. “Drawn by Wm. Smyth HMS Blossom August 1 1826.” Pen, ink and watercolor on paper by William Smyth. L 22.5, H 15 cm. Sold by Bonhams, London, 15 September 2010. The painting depicts an Inupiat family carrying an Arctic fox skin (left) and a red fox skin (right) to trade with the HMS *Blossom*, seen in the background being greeted by an umiaq. The man wears a headband of blue beads, an ivory labret and a claw necklace visualizing his prestige while the bow and quiver across his back suggest a demonstration of power and wariness of the Western ship. A sod house with whalebone supports can be seen on the left.

Fig. 72. “Esquimaux drilling implements of walrus tusk, Engraved by Natives, Presented to the Ashmolean Museum by Capt Beechey R.N. 1832.” The four drill bows are now in the Pitt Rivers Museum (top to bottom): 1886.1.695, 1886.1.692, 1886.1.693, 1886.1.694. Pitt Rivers Museum Photograph Collection, 1998.259.1-.25, B.59.

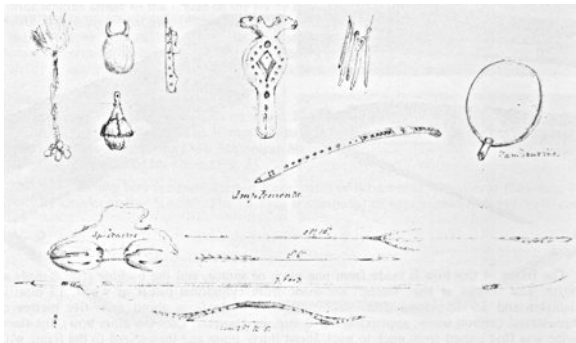


Fig. 73. Frederick W. Beechey’s sketch of objects acquired from northern Alaska in 1826 (from Bockstoe 1977:24). The three engraved ivory implements are now in the British Museum: drill bow (Am1983.27.1), arrow straightener with two caribou heads (Am.1376) and net gauge (Am.1377).

Fig. 74. Engraved ivory drill bow with blue beads collected by Frederick Beechey in 1826. BM Am1983.27.1.

Two of the *Blossom*'s other crewmembers, Edward Belcher and George Shuldham Peard, also made significant collections of Arctic material culture. Edward Belcher served as the supernumerary and assistant surveyor on the *Blossom* and acquired over three hundred objects from the Pacific.³⁸ Belcher presented two engraved ivory drill bows and various ethnologica to the British Museum between 1842-55 with four additional drill bows and other material going to the Ashmolean Museum.³⁹

George Peard served as first lieutenant aboard the *Blossom* and kept detailed accounts of the ship's daily progress along with collecting activities (Peard 1973).⁴⁰ On July 15, 1826 the *Blossom* anchored off of St. Lawrence Island where Peard (1973:145-46) recounts trading goods and acquiring ivory, "tacked ship about two miles from some huts we perceived in a sheltered situation on the beach where the Inhabitants were making preparations for visiting us. They launched four boats & came off, when a brisk barter soon commenced for Sea horse teeth, Skins, Bows & Arrows, fish spears, fishing lines, hooks &c., which they readily exchanged for glass beads or a few leaves of Tobacco." Peard collected over fifty objects including two engraved ivory drill bows in addition to pictorial engraved snow knives, harpoon heads and drag handles. Peard's

³⁸ Sir Edward Belcher was born in Nova Scotia and enjoyed a successful career as an explorer, naval officer and hydrographer. He published a two-volume *Narrative of his world voyage in the Sulphur 1836 – 1842*. For details on Belcher's life see, D.N.B. Alcock, "Obituary. – Sir E. Belcher," *Proceedings of the Royal Geographical Society of London*, 21(1876 - 1877), 410-16.

³⁹ The British Museum has almost 270 objects collected by Belcher from the locations of Oceania, Melanesia, Vanuatus and New Guinea, British Museum Collection Online, http://www.britishmuseum.org/research/collection_online/search.aspx?searchText=edward+belcher

⁴⁰ The British Museum purchased the original journal kept by George Peard in 1897 and it is now located in the British Museum Manuscripts Department, Additional Manuscript 35,141 in the *Catalogue of additions to the manuscripts in the British Museum in the years 1894-1899*, London, 1901 (Peard 1973:52).

collection remained in his family until 1916 when it was presented to the City of Exeter Museum (Pearce 1976:25).⁴¹

William Hulme Hooper and the HMS Plover

In 1848, Lieutenant William Hulme Hooper joined the crew of the HMS *Plover* en route to the Bering Strait in search of remains belonging to Sir John Franklin's 1845 Northwest Passage Expedition. The *Plover* spent the winter of 1848 in Providence Bay, Siberia where Hooper traveled with search parties up and down the coast visiting and trading with Chukchi and Siberian Yupik peoples as far north as East Cape and as far south as Indian Point (Hooper 1853). The following summer of 1849 the *Plover* scoured the Alaskan coastline looking for signs of Franklin from Kotzebue Sound to Point Barrow but to no avail and following search expeditions in Canada, Hooper returned to England in 1851.

Hooper published his observations and interactions with Bering Strait peoples in *Ten months among the tents of the Tuski, with incidents of an Arctic boat expedition in search of Sir John Franklin, as far as the Mackenzie River, and Cape Bathurst* (1853). Hooper's published account offers rich ethnographic detail about Bering Strait peoples in addition to providing indigenous names of villages and individuals with whom he visited and bartered for goods. An avid collector, Hooper (1853:216-217) describes trading for ivory carvings, clothing and hunting implements near Cape Smythe on July 29, 1849 when Natives from seven tents, "crowded the beach, quickly launched their boats, followed and came up with us. They were anxious to barter, and delighted to exchange

⁴¹ Fifty-eight Bering Strait objects acquired by George Peard appear in Susan M. Pearce, *Towards the Pole: A Catalogue of the Eskimo Collections*, (Exeter, UK: City of Exeter Museum and Art Gallery, 1976). The City of Exeter Museum has been renamed the Royal Albert Memorial Museum and Art Gallery.

arrows, boots of seal-skin, ornaments of ivory, &c., for scraps of tobacco or a few beads; but they coveted more than all else, any thing of iron.” In 1855 John Barrow presented the British Museum with over fifty objects collected by Hooper including three pictorial engraved drill bows, small ivory animals and ivory pipes. Hooper (1853:186-87) does not mention where he collected the three engraved drill bows but observes Chukchi women use drill bows on flat boards to start early morning fires.

Museum Expeditions of Salvage Ethnography

William Healey Dall

William Healey Dall traveled to Alaska as a member of the Western Union Telegraph Expedition from 1865-68 and represents the first Smithsonian naturalist to acquire pictorial engraved ivories from Norton Sound.⁴² Dall initially joined the scientific expedition as staff in charge of invertebrates and fish and carefully penned “Directions for Collecting” which describes the preservation treatment for various natural history specimens noting that “The horns of deer, skulls of walruses, seals, and bears are particularly valuable.”⁴³ The material Dall assembled while working for the Western Union Telegraph Expedition went primarily to the Smithsonian Institution including four drill bows obtained at Port Clarence. Only one of the drill bows, NMNH E46054, depicts

⁴² An enthusiastic collector, Dall recorded 5,160 specimens in his journal during the expedition’s first year. See Paul Bartsch, Harald Alfred Rehder and Beulah E. Shields, *A bibliography and short biographical sketch of William Healey Dall*, (Washington, D.C.: Smithsonian Institution, 1946), 5. Dall made collections from areas around Sitka, Unimak Island, Plover Bay, St. Michael, Unalakleet, Nulato and Fort Yukon.

⁴³ Dall stressed the importance of documenting acquisitions stating one should always “Write on or label every specimen with date, locality, and collector’s name.” Dall prepared his instructional report for distribution to “Captains of the Fleet” stating his instructions should be accompanied by a Smithsonian pamphlet and that at voyage’s end all specimens were to be turned over to the Director of the Scientific Corporation of which Dall served as the Acting Director. Dall enclosed a copy of his report in a letter to Spencer F. Baird, Assistant Secretary of the Smithsonian Institution, on May 17, 1866. Smithsonian Institution Archives, Record Unit 7213, Box 1.

a significant amount of pictorial engraving (Fig. 75). Dall may have been unable to secure additional drill bows due to their continued use and owners' subsequent hesitancy to trade the tools. For example, Dall (1870:237) observed an engraved drill bow in use stating, "I have seen an ivory bow, used in connection with a drill, and made of an entire walrus tusk, which had depicted on each of the four sides every pursuit followed by the Innuits from birth to interment."

Following his deposit of collections at the Smithsonian, Dall made return trips to Alaska and assembled a small private collection encompassing another engraved ivory drill bow, donated to the Alaska State Museum in 2003.⁴⁴ Northern travel advanced Dall's reputation as a knowledgeable naturalist and he sold pieces to individuals and museums including Captain Edward Gustavus Fast and the Peabody Museum.⁴⁵ Dall also accepted commissions to collect for others as seen in a photograph of Dall trading for ethnological material in Point Hope on behalf of Dr. Daniel Neuman (Fig. 76). In 1870 Dall published *Alaska and Its Resources*, which recounts his work with the Western Union Telegraph Expedition and offers a descriptive account on the natural resources and cultural activities of Alaska.

⁴⁴ Dall returned to Alaska in 1871 as Acting Assistant to the Coast Survey with further reconnaissance surveys made to Alaska between 1872-74 and 1880 (Bartsch et. al. 1946:7). In 2003, Mrs. Pauline Dall donated objects collected by William Healey Dall to the Alaska State Museum of which the museum accessioned 45 items, including an engraved ivory drill bow (2003-1-10) and an engraved ivory bag handle (2003-1-9). In a note to ASM curator Steve Henrickson, Pauline Dall describes the objects, "W. H. Dall's Alaskan artifacts which are on display at the Juneau-Douglas City Museum – I would like to donate them to your museum in memory of my husband – Mark Henry Dall who was W. H. D's grandson." ASM Accession Files, 2003-1.

⁴⁵ The Peabody Museum describes objects collected by Fast and Dall as "A series of objects collected in Alaska by Capt. Edward G. Fast, during the years 1866 and 1867, has been recently bought... Nearly all the carvings in bone, horn and wood, are of the most elaborate and skillfully wrought patterns... in negotiating for the purchase of it, was also fortunate in having the advantage of the services of Mr. William H. Dall, whose recent explorations in Alaska rendered him especially cognizant of the value of the different articles." Peabody Museum Anthropology Archives, *Peabody Annual Report*, 1870.



Fig. 75. Engraved ivory drill bow with bearded sealskin strap collected by William Healey Dall. NMMH E46054.

Fig. 76. William Healey Dall (right) and a University of Pennsylvania professor (center) examining artifacts offered for sale by a Point Hope resident (left). Photograph pasted in the back of Daniel Neuman's handwritten catalogue from 1910-1916 with the caption "Dr. Dal and / Professor Clinical Medicine University of Pennsylvania, picking up curios for me at Point Hope." Alaska State Museum Accession Files, Neuman Collection.

Lucien Turner

From 1874-77, Lucien McShan Turner used the Alaska Commercial Company trading post at St. Michael as a base for performing official duties for the U.S. Army Signal Corps while simultaneously acquiring ethnological material for the Smithsonian Institution.⁴⁶ Following his tenure in St. Michael, Turner made a second expedition to Alaska between 1878-81 but produced few reports describing his ethnological observations or collections.⁴⁷ However, Turner prepared an illustrated volume with

⁴⁶ As an employee of the U.S. Army Signal Corps, Turner performed "systematic reading and recording of meteorological, atmospheric and tidal data." (Loring 2001:xi).

⁴⁷ Turner accepted a second term of employment with the U.S. Army Signal Corps from 1878-81 during which time he established meteorological stations in Unalaska, Bristol Bay, Belkofski, St. Paul Island and the western Aleutians (Loring 2001:xiii). Turner worked on an unpublished narrative of his Aleut collections accompanied by ethnological notes and a short vocabulary in 1889. National Anthropological Archives, Smithsonian Institution, Manuscript 7197.

details on the Alaskan environment published as *Contributions to the Natural History of Alaska* (1886).⁴⁸

Turner's Alaskan research resulted in a collection of over 1,500 ethnological objects including twenty-four pictorial engraved drill bows now in the Smithsonian NMNH and one engraved drill bow in the Peabody Museum.⁴⁹ Turner offers few details on where he acquired the engraved drill bows listing a provenience of "Norton Sound" for the majority and "St. Michael" for three drill bows. A group of six bone drill bows are engraved in a style of broad outlines and diagonal hatching unique to the Central Yup'ik village of Pastolik, located near the western mouth of the Yukon River (Fig. 77).⁵⁰

Museum records offer few details on Turner following his ten years as a field naturalist for the Smithsonian. However, during the 1890s, Turner struck up a correspondence with Walter James Hoffman, a medical doctor who compiled an exhaustive report describing the Smithsonian's Arctic collection of pictorial art published as *Graphic Art of the Eskimos* (1897). Hoffman's report includes excerpts of four letters he received from Turner between 1894-96 that offer a number of observations on ivory carvings such as internal exchanges of drill bows, a process of splitting walrus tusks to

⁴⁸ Turner's publication of Alaskan natural history was the second of five volumes focused on arctic research conducted under the auspices of the U.S. Army Signal Corps. (Loring 2001:xiv). As part of the International Polar Year Expedition, Turner traveled to Ungava Bay in northern Québec where he assembled a large ethnological collection between 1882-84 (Turner 2001).

⁴⁹ The Peabody Museum received drill bow 88-51-10/50809 collected by Lucien Turner as part of an exchange with the Smithsonian Institution in 1888. An exhibit card accompanying the drill bow states, "Eskimo Alaska Fire Drill ... common device to make fire by friction - - piece at top held in mouth to keep shaft firm in hearth at bottom - - ivory bow moved rapidly back and forth to revolve shaft in hearth - - sparks fall out of notch on tinder (dried moss) - - same technic used to rotate drill (see 52140) 50030 1880's." Peabody Museum, Anthropology Archives, Accession 88-51-10.

⁵⁰ Dall (1870:237) illustrates two bone knives collected from Pastolik with a style of imagery related to the antler drill bows collected by Turner, see Ch. 7, Fig. 292.

make drill bows, a type of graver used to create nucleated circles and fill material for darkening incised motifs (Hoffman 1897:774-814).



Fig. 77. Engraved bone drill bow with bearded sealskin strap collected by Lucien Turner. NMNH E24547.

Edward W. Nelson

Lucien Turner's departure from St. Michael overlapped with the arrival of his replacement Edward W. Nelson during the spring of 1877. Nelson probably received a debriefing from Turner on navigable travel routes, experienced Native guides and profitable areas in which to make collections. The two naturalists shared a common zeal for collecting as described by Nelson who recounts that soon after arriving in St. Michael, "In the evening, Mr. Turner and I went to the Indian village [*Taciq*] and traded for some ivory dolls and small parkies."⁵¹

Between 1877-81, Nelson traversed the northern countryside on kayak, sledge and the Revenue Cutter *Corwin* acquiring over 10,000 objects of material culture from both sides of the Bering Strait in addition to the Yukon-Kuskokwim Delta and Lower Yukon (Nelson 1983) (Fig. 78). Native traders quickly learned Nelson purchased almost any material they offered. When the *Corwin* stopped at King Island on July 12, 1881, Captain C. L. Hooper and Nelson discovered traveling parties with ivory carvings to trade had left in hopes to meet up with Nelson on their journey. Hooper (1884:37) remarked that

⁵¹ Smithsonian Institution Archives, Record Unit 7364, Edward William Nelson and Edward Alphonso Goldman Collection, circa 1873-1946 and undated, Box 11, Field Journals, June 21, 1877 (hereafter cited as SIA, *Nelson Journals*).

Nelson's "custom of buying these carvings, and many other things which were of no value except as specimens for a museum, pleased the natives very much, and to many to whom his name was not known, he was described as 'the man who buys good-for-nothing things.'" Nelson also employed Native traders to visit outlying villages and purchase collections that they then brought to him in St. Michael.⁵²



Fig. 78. Edward Nelson standing next to a woman on a sledge pulled by three dogs. St. Michael, AK. 1877. National Anthropological Archives, Smithsonian Institution, NAA INV 01429400.

Nelson particularly admired the northern practice of engraving on ivory and collected 81 pictorial engraved drill bows along with a sizeable number of engraved bag handles, pipes, household utensils and decorative carvings. The 81 drill bows carry recorded proveniences of two general regions, Norton Sound and Kotzebue Sound, and fourteen specific places including: Point Hope, Hotham Inlet, Diomed Islands, Cape Prince of Wales, Sledge Island, Cape Nome, Cape Darby, Golovin, Nubviukhchugaluk, Shaktoolik, Unalakleet, Kigiktauik, St. Michael and Pastolik. As noted previously, ivory

⁵² Less than a year after arriving in St. Michael, Nelson remarks he had acquired over 1,200 artifacts, "besides the considerable amount that is yet to come in from traders to whom I have given goods." SIA, *Nelson Journals*, March 22, 1878.

carvings circulated between peoples and places and Nelson's recorded drill bow locations probably refer more to place of acquisition rather than a carver's home village.

Nelson's field journals tend to offer greater insight into origins of the engraved drill bows. For example, on August 19, 1877, a group of King Islanders arrived at St. Michael in a single umiaq and received permission to overnight in the ACC bathhouse due to rainy weather.⁵³ The King Islanders visited Nelson the next morning, initially offering dried fish and seal oil as trade items, but after prolonged bargaining Nelson secured a gutskin parka for 50 cents prompting the collector to remark, "The cause of the difficulty in trading with these northern natives is that a great many whalers do more or less trading with them and pay almost anything they charge for their goods and thus give them an exaggerated idea of their value."⁵⁴ Nelson recounts King Islanders eventually brought forth ivory drill bows and carvings to trade, "During the day a number of drill bows (ivory) and various ivory carvings were brought me by the natives to trade, some of which were very good."⁵⁵

Over two years later on a return journey to St. Michael in 1880, Nelson stopped at the village of Kwikh in northern Norton Sound where he remarks, "In the evening I bought some articles among which a drill bow and an ivory-handled skin scraper are the two finest I have seen of the kind."⁵⁶ During the winter of 1880, Nelson also collected a

⁵³ Nelson remarks he traveled with Rudolph Neumann over to the Native village of Taciq where they came across a group from King Island apparently having just arrived in their umiaq. Shortly thereafter, the King Islanders paddled across to the ACC post to request shelter for the evening. SIA, *Nelson Journals*, August 19, 1877.

⁵⁴ SIA, *Nelson Journals*, August 20, 1877.

⁵⁵ Ibid.

story from around the Native village of Anvik that recounts how Raven used a drill bow to help secure a wife (see Ch. 5).⁵⁷

Nelson's tenure with the Signal Corps ended in 1881 and the field naturalist departed with a final prodigious collecting trip aboard the U. S. Revenue Cutter *Corwin* making stops along the coasts of North Alaska and Siberia. On July 2, 1881 the *Corwin* paused off Indian Point (Cape Chaplino) where Nelson notes almost 140 Natives boarded the ship, "bringing white-fox skins, whale bone [baleen], and walrus ivory to trade... They were a good-natured set, talking a mixture of Eskimo and Reindeer Chukchi. I secured a few ethnologica from them and also 16 fine White fox skins for a robe." (Fig. 79).⁵⁸ Farther north at Point Hope, Captain Hooper provides an insightful look into Nelson's collecting process during an exchange in which the naturalist secured drill bows, ivory carvings and various implements (Fig. 80).⁵⁹

We went on shore to examine their houses and learn something of their mode of living. Mr. Nelson, who was ever on the alert for anything of etymological interest, took his camera and a small package of trade goods. Upon reaching the settlement Nelson established himself under the lee of a turned-up oomiatic near the shore, and signified through the interpreter his desire to buy any old worthless things they might possess. A general raid was made on the old collections or rather accumulations of the settlement. Carved images, drill bows (for making fires), and implements of various kinds, made of ivory and stone, were brought out and offered for sale by the natives, each trying to be the first to trade, as if afraid the supply of beads, calico, tobacco, &c., would not hold out, or that the

⁵⁶ SIA, *Nelson Journals*, March 29, 1880. Nelson describes being welcomed at Kwikh into the frame house of Isaac, an Iñupiat from Kotzebue Sound, employed as a trader for the Western Fur and Trading Company.

⁵⁷ SIA, *Nelson Journals*, December 26, 1880.

⁵⁸ SIA, *Nelson Journals*, July 2, 1881. Nelson remarks nine or ten skin boats were waiting off Cape Chaplino anxious to trade as the *Corwin* was the first ship to stop there that season. Nelson offered a pound of tobacco worth 22 cents for a single white fox skin or six boxes of army caps for five fox skins.

⁵⁹ Nelson listed a provenience of Point Hope for four engraved drill bows: E63802, E63803, E63804 and E63805. The drill bows were accessioned as part of 82A00003, a later accession date, that indicates the four drill bows were probably acquired during the 1881 exchange described by Hooper.

market for articles of native manufacture might be overstocked. Each article offered was taken by Nelson and examined, and if of any value as a specimen the interpreter was told to ask what was wanted in return, and upon being told what the native most wanted a fair quantity was given. (Hooper 1884:107)



Fig. 79. Men from Indian Point, Siberia aboard the U.S. Revenue Cutter *Corwin* offering a polar bear skin and baleen as trade items. Photograph by Edward Nelson, 1881. National Anthropological Archives, Smithsonian Institution, NAA INV 06680100.

Fig. 80. Villagers from Point Hope, AK aboard the U.S. Revenue Cutter *Corwin*. Photograph by Edward Nelson, 1881. National Anthropological Archives, Smithsonian Institution, NAA INV 01429700.

John Murdoch and Patrick H. Ray

Between 1881-83, John Murdoch and Patrick H. Ray carried out scientific research and traded for objects in Point Barrow and Cape Smythe as members of the International Polar Expedition. Edward Nelson encountered the expedition's schooner *Golden Fleece* at Plover Bay during the summer of 1881 and received assurance from Lieutenant Ray that Murdoch, although primarily an ornithologist, intended to give due "attention to the native customs and beliefs."⁶⁰ Murdoch and Ray assembled one of the largest collections of material from Northern Alaska with the resultant collections of

⁶⁰ SIA, *Nelson Journals*, August 24, 1881. Nelson encountered members of the IPE in Plover Bay during his last Arctic journey before leaving Alaska. Before parting, Nelson presented Ray with a sledge and Captain Hooper offered Ray a second sledge and a bundle of deerskins.

ethnology, ornithology and geology presented to the Smithsonian Institution (Murdoch 1988; Ray 1885).

Murdoch (1988:175) remarks on contemporary use of bow drills stating, “The use of the bow drill appears to be universal among the Eskimo. Those at present employed at Point Barrow do not differ from the large series collected at the Mackenzie and Anderson rivers by MacFarlane.” However, Ray (1885:46) indicates bow drills were falling out of favor by the 1880s with flint and steel taking precedence claiming “we found the ancient fire drill still in use among some of the old, conservative men.”⁶¹

In addition to Point Barrow and Cape Smythe, Ray and Murdoch obtained objects from villagers visiting from Icy Cape and Point Hope. Within their collection are sixteen ivory drill bows Ray (1885:69) describes as “Flat bow of ivory or bone, often carved or engraved, with a string of rawhide.” Murdoch (1988:176) further remarks that, “These bows are often highly ornamented both by carving and with incised patterns colored with red ocher or soot.” The majority of acquired drill bows feature geometric designs and only four bows have a significant amount of pictorial engraving (Fig. 81). A couple of bag handles, which could have doubled as drill bows, also have pictorial motifs including rows of caribou and whales’ flukes. The collection also includes several examples of pictorial imagery engraved on miscellaneous ivory objects and painted on wooden dancing gorgets attached to masks (Murdoch 1988).

⁶¹ The decline of bow drill use in Barrow can perhaps be attributed to the growing availability of Western goods from whalers as noted by Murdoch (1892:49) who stated, “The articles of trade have changed somewhat in the last 30 years, from the fact that the western natives can now buy directly from the whalers iron articles, arms, and ammunition, beads, tobacco, etc. The Nunatanmium now sell chiefly furs, deerskins, and clothing ready made from them, woodenware (buckets and tubs), willow poles for setting nets, and sometimes fossil ivory.”

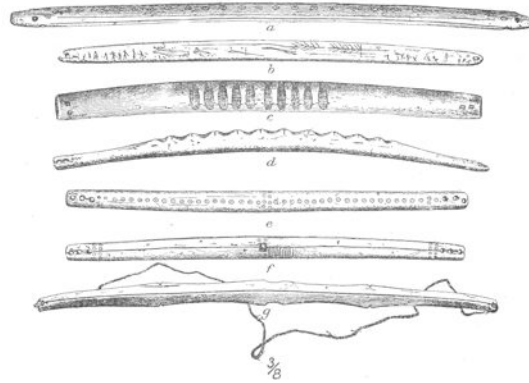


Fig. 81. Engraved ivory drill bows and bag handles acquired by John Murdoch and Patrick H. Ray from Point Barrow and Cape Smythe between 1881-83 (from Murdoch 1988:178).

Adolf Eric Nordenskiöld

The Finnish explorer Adolf Eric Nordenskiöld circumnavigated Europe and Asia aboard the *Vega* between 1879-80 acquiring ethnographic materials from Siberian and Alaskan Natives.⁶² The *Vega* reached Port Clarence on July 21, 1879 and dropped anchor, whereupon immediately followed a number of umiat and kayaks paddling out to trade (Nordenskiöld 1881:228). Over the next four days Nordenskiöld (1881:236) vigorously bartered with Natives camped in tents along the beach offering up the ship's store of winter clothing and ammunition, "I turned my riches to account by making visits like a pedlar in the tent villages with sacks full of felt hats, thick clothes, stockings, ammunition &c, for which goods I obtained a beautiful and choice collection of ethnographical articles." Nordenskiöld obtained 246 articles used primarily for summer subsistence activities including a full-size kayak, painted paddles, bird spears, fishhooks,

⁶² By 1879 Nordenskiöld was a seasoned trader with substantial collections made in Greenland in the early 1870s and 911 objects acquired from Chukchi along the Siberian coast in the fall and winter of 1878 (VanStone 1990:23).

and various small ivory implements (VanStone 1990).⁶³ Following the *Vega*'s return to Sweden in April 1880, Nordenskiöld's collections were deposited with the Folkens Museum Etnografiska in Stockholm.

Nordenskiöld acquired five pictorial engraved ivory drill bows and one engraved bag handle at Port Clarence in 1879 (Fig. 82).⁶⁴ Nordenskiöld (1881:235) witnessed engraved drill bows still being used to start fires and described the difference between Alaskan and Siberian engravings: "Fire was got partly with steel, flint, and tinder, partly by means of the fire-drill. Many also used American lucifers. The bow of the fire-drill was often of ivory, richly ornamented with hunting figures of different kinds. Their tools were more elegant, better carved, and more richly coloured with graphite and red ocher than those of the Chukches" The Natives Nordenskiöld met with at Port Clarence were not a homogenous group as reflected in the variety of acquisitions including masks in the style of Point Hope and Wales and paddles with painted designs similar to those from King Island.

⁶³ VanStone (1990) provides the most detailed information on Nordenskiöld's Port Clarence acquisitions as Nordenskiöld (1881) describes collecting methods along with a few illustrations but does not include information on individual objects either in his published accounts or personal writings.

⁶⁴ Four of the drill bows have sealskin straps denoting that they were in current use when Nordenskiöld acquired them. Nordenskiöld acquired only one mouthpiece and one drill suggesting owners did not wish to part with these pieces or the collector had greater interest in the visually exciting engraved drill bows. VanStone (1990:15) describes all five drill bows as rectangular in cross-section with four surfaces ranging in length from 27 to 49 cm.



Fig. 82. Engraved ivory drill bow with bearded sealskin strap and repair collected by Adolf Eric Nordenskiöld in 1879 at Port Clarence, AK. L 49, W 1.5 cm. Courtesy of the Etnografiska Museet, Stockholm, 1880.4.1031.

Johan Adrian Jacobsen

Norwegian Johan Adrian Jacobsen arrived in St. Michael in 1882 eager to assemble a large ethnographic collection for the Royal Ethnological Museum in Berlin (Jacobsen 1977).⁶⁵ Jacobsen estimated he traveled at least 900 miles during his first six months in Alaska collecting approximately 6,720 objects from communities along the Bering Sea coast and Kotzebue Sound (Jacobsen 1977:168-69; Fienup-Riordan 2005).⁶⁶

Despite expressing frustration toward Edward Nelson's earlier rapacious collecting, Jacobsen still obtained a substantial number of ivory carvings including twelve pictorial engraved drill bows in addition to engraved arrow straighteners, pipes and bag handles.⁶⁷ The engraved ivories could have originated from a number of carving

⁶⁵ In 1881, Adolf Bastian, director of the Royal Ethnological Museum in Berlin, commissioned Jacobsen to travel to Alaska and assemble a large collection for the museum.

⁶⁶ Jacobsen acquired over 2,000 objects from Yup'ik communities during his Alaskan expedition of 1882-83. In 1997, Ann Fienup-Riordan and Margaret Meade traveled to Berlin with Yup'ik elders for a two-week research visit in which elders examined and described the collections. Photos, stories and oral accounts from this collaboration are interwoven with ethnohistorical research in Ann Fienup-Riordan, *Yup'ik Elders at the Ethnologisches Museum Berlin: Fieldwork Turned On Its Head*, (Seattle: University of Washington Press, 2005). Jacobsen's Iñupiat collection remains largely unpublished.

communities as Jacobsen traded with coastal and island villagers including those from King Island, Sledge Island, Golovin and Wales. He also penetrated the interior of Seward Peninsula collecting drill bows from Kauwerak, an area that Edward Nelson had not reached (Ray 1996:103).⁶⁸ Images of the drill bows appear in *Amerika's Nordwest-Küste* (1884:Pl. 7-9) with engraving styles that appear similar to bows from Hotham Inlet (Fig. 84). Jacobsen recounts the purchase of one drill bow at the village of Kikertarok on October 16, 1882:

Among them was some unusual fire-making equipment formerly used; it consists of the two well-known pieces of wood, one of which is held vertically through a bow drill, with its horn bit in a hollow of the second board, and rapidly moved to and from until the pulverized wood first creates some smoke, then bursts into flame. (Jacobsen 1977:119)

The ACC assisted Jacobsen in his collecting pursuits with Rudolph Neumann loaning him an umiat to use in his endeavors. Jacobsen (1977:85-86) also employed the navigational services of a Native interpreter named Petka who previously worked for Edward Nelson in a similar occupation.⁶⁹ Jacobsen recorded several accounts of mythological creatures and with a collector's visual acuity vividly described the costumes

⁶⁷ Many collectors besides Edward Nelson had acquired objects from the Seward Peninsula by the time of Jacobsen's trek in 1882-83. However, while traveling on the Selawik River in February 1883, an exasperated Jacobsen (1977:159-60) said that the people "asked high prices and did not bring out as many ethnographic objects as I had been given to understand would be forthcoming. It seems that many of the objects of this type had already been purchased by Eskimo traders who took them to Fort Saint Michael, where Mr. Nelson bought them for the Smithsonian Institution."

⁶⁸ In 1845, Adolph Etholen gave five engraved ivory drill bows to the Museum of Cultures in Helsinki, which also include a provenience of "Kauwerak Bay" (Varjola 1990).

⁶⁹ Jacobsen (1977:116) recognized the import of retaining Native language names of objects and at the close of 1882 employed Petka to help tag each object with its use and provenience. Jacobsen states Petka did not know many of the Ingalik names of objects, which he attributed to him being half-Native.

and decorations of feasts and dances including a Feast for the Dead at village of Igniktok and a Bladder Festival that took place at Atnuk.

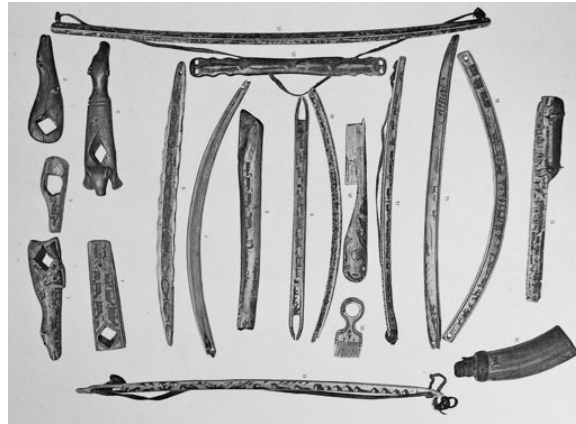


Fig. 83. Engraved ivory implements acquired by Johan Adrian Jacobsen in Alaska between 1882-1883 (from Jacobsen 1884:Pl. IX). Jacobsen collected twelve pictorial engraved drill bows for the Ethnologisches Museum der Staatliche Museen, Berlin.

George Byron Gordon

In 1905, George Byron Gordon, Curator of Archaeology at the University of Pennsylvania Museum, traveled with his brother MacLaren Gordon to northwest Alaska on an expedition to acquire ethnological objects for the Museum.⁷⁰ Gordon's trip was motivated by a curatorial desire to complete gaps within the museum's Alaskan collections as well as an anthropological interest to document northern people and culture he thought vanishing under western contact (Kaplan and Barsness 1986:26). Gordon spent the summer traversing the Bering Sea coast from Nunivak Island to Cape Prince of Wales visiting a total of eighteen villages. During his trek, Gordon collected objects,

⁷⁰ Gordon expressed the mindset of a salvage ethnographer in attempting to secure as much material as possible before it was lost. Before he set off on his 1905 trip, Gordon visited staff at the Smithsonian, Peabody Museum and American Museum of Natural History who agreed to exchange duplicates if he ended up making too expansive of collections (Kaplan and Barsness 1986:26). Based on collection records from these museums, Gordon evidently didn't part with any drill bows although he obtained several examples.

recorded string figures, compiled word lists, took photographs, and formed connections with local traders (Gordon 1906). His efforts resulted in an assemblage of over 3,000 objects including baskets, masks, models, clothing, and pottery accompanied by a collection of over 300 photographs with a predominance of formal portraiture. In 1907 Gordon returned to Alaska with his brother MacLaren and went on another collecting expedition that focused on visiting the interior villages along the Yukon and Kuskokwim Rivers (Gordon 1917).⁷¹

Gordon emphasized the import of Native language in a 1905 letter to the Museum's President and Board of Managers stating that he hoped the expedition would allow him "to learn something of the language and traditions of these unknown people." (Kaplan and Barsness 1968:26). To this end, Gordon (1906:72) spent two weeks on Nunivak Island learning Yup'ik from a young woman named Keouiouk and her husband Tukataruk, Gordon (1917) also recorded oral stories and tales of mythological creatures told along the Kuskokwim.

Gordon acquired seven pictorial engraved ivory drill bows during his museum expeditions of 1905 and 1907.⁷² Six drills bows, along with drills and mouthpieces, were obtained in 1905 and carry proveniences of Cape Prince of Wales (NA454, NA455, NA460, NA461) and Nunivak Island (NA456, NA457).⁷³ Gordon collected the seventh

⁷¹ George Heye donated \$2000 to the expenses of Gordon's 1907 Alaska trip and in exchange Gordon gave Heye duplicates of Alaskan materials and made up the remainder from the Museum's existing collections, including Plains and Northwest Coast artifacts (Kaplan and Barsness 1986:32).

⁷² The University of Pennsylvania Museum loaned out drill bows NA461 and NA1517 over thirty years ago that never returned (Personal communication with Bill Wierzbowski, University of Pennsylvania Museum Keeper of Collections). Photos of the two absent drill bows appear along with three other engraved bows collected by Gordon in J. Alden Mason, "Eskimo Pictorial Art," *The Museum Journal*, University of Pennsylvania 18(1927), 248-83.

drill bow (NA1517) in 1907 from an elderly man living near the mouth of the Yukon River (Gordon 1917:232-33). In speaking of pictorial engraved ivory, Gordon (1906:80) states, “Articles of a purely aesthetic quality, such as pictures engraved on sections of walrus tusk, have been collected in considerable numbers, and are still frequently met with, for at the present time they are made to supply a demand on the part of traders, travelers, and the white residents generally.”

Financial Incentives

Russian-American Company and Adolf K. Etholen

Adolf K. Etholen of Finnish nationality entered the service of the Russian-American Company at Sitka in 1818 and over the next three decades performed various duties including sailing Company ships to northern territory, charting islands and coastlines in the Bering Sea, forming trade relations and recording observations of indigenous peoples (Varjola 1990:14).⁷⁴ During the summer of 1830, Petr E. Chistiakov, governor and manager of the Russian-American Company, sent Etholen on an exploring expedition of Norton Sound and the Bering Sea. Etholen sailed on the *Chichagov* visiting and trading with Natives in Golovnin Bay, Sledge Island and King Island before heading into St. Lawrence Bay on the Chukchi Peninsula.⁷⁵ In 1840, Etholen took over as

⁷³ Gordon acquired the only known pictorial engraved drill bows with a provenience of Nunivak Island. Nunivak ivory carvings tend to feature linear engravings similar to coastal Yupi’k communities with pictorial motifs painted on bentwood bowls and skin drums. See Hans Himmelheber, *Eskimo Artists: Fieldwork in Alaska, June 1936 until April 1937*, (Fairbanks: University of Alaska Press, 1993).

⁷⁴ During his long tenure with the Russian-American Company, Etholen also served in the Imperial Navy joining as a navigating officer in 1824 and rising through the ranks to become a lieutenant-commander in 1832. Following this success, from 1841 to 1845 Etholen served as general manager of the Russian-American Company while also a first captain in the navy. He left Alaska with his family in 1845 and resigned from the Company in 1847 with the rank of rear-admiral (VanStone 1973; Varjola 1990).

manager of the Russian-American Company and made a return trip to Sitka in company with Ilya Voznesenski, a Russian preparator working for the St. Petersburg Academy of Sciences. Voznesenski spent the next ten years obtaining ethnographic and scientific materials from Alaska and East Siberia and likely contributed items to Etholen's last donation of objects to Helsinki University in 1846 (Varjola 1990:18).

During his northern expeditions of 1826-1845, Etholen, possibly assisted by subordinate Company employees, acquired almost 700 objects delivered in three different donations to the University of Helsinki Ethnographic Museum in 1829, 1834 and 1846.⁷⁶ Within the 1846 donation are five engraved ivory drill bows described by Voznesenski in a collection list as an "implement of every northern savage" which was "always worn in the belts by the savages." (Varjola 1990:279).⁷⁷ Three drill bows have a provenience of Norton Sound and two drill bows are described as deriving from Kauwerak Bay.⁷⁸ It seems probable that Etholen obtained the drill bows during the summer of 1830 or the

⁷⁵ Etholen's report of the 1830 expedition describes the import of walrus to King Islanders, "At the first glance on this wild and morose island, one is astonished how people can live there. The immense quantity of walrus closes to its shores solves this riddle. Hunting these animals, the natives barter for them all that they need from the natives on the mainland and so make their living." (Ray 1992:122).

⁷⁶ Varjola (1990:26) notes previous collections acquired by Etholen were made to the Turku Academy in 1825 and 1826, which were unfortunately destroyed by a fire in 1827.

⁷⁷ The five drill bows with pictorial imagery include: VK334:1, VK334:2, VK334:3, VK334:4, VK334:5. Three of the drill bows arrived at the Helsinki Museum packed together in the same box and were labeled "Calendars(?) seasons depicted on bone [ivory] plate; implement of every northern savage" and came from the "Inhabitants of Norton Sound." (Varjola 1990:326). Voznesenski's description of wearing drill bows on a belt suggests drill bows were strung onto a belt with their bearded sealskin straps or through a tertiary lash hole.

⁷⁸ Johan Adrian Jacobsen also acquired drill bows from Kauwerak Bay. Albeit Etholen entered Norton Sound in 1830 making stops at Golovin Bay and Sledge Island among others, Ray (1996:103) mistakenly claims Etholen never visited Norton Sound so must have obtained the five drill bows in trade. In all probability, Etholen acquired the five drill bows on two different occasions as the three drill bows from Norton Sound were shipped separately from those from Kauwerak Bay.

period between 1840-1845 when Voznesenski traversed the Siberian and Alaskan coastlines.⁷⁹

While Adolf Etholen served in the Russian-American Company during the 1830s, he received special instructions from Baron Ferdinand von Wrangell, Governor and Chief Manager of the Company from 1830-35 who eventually recommended Etholen as his successor (Varjola 1990:17). Wrangell grew up in Estonia and served on the *Kamchatka* commanded by Captain Golovnin from 1817 to 1819. Between 1820-24 he explored the coastline of Eastern Siberia from the Lena River to Chukotka, followed by his appointment of Governor in 1829.

Etholen had probably heard of or seen engraved drill bows as Wrangell acquired three drill bows during the period between 1820-1835. The three drill bows are located within an assemblage of 571 objects, primarily from Eastern Siberia and Russia America, collected by Estonians in the Russian Imperial Navy during the first half of the nineteenth century, now in the ethnographic collections of the Ajaloomuseum in Tallinn, Estonia (Rousselot and Grahammer 2004).⁸⁰

Alaska Commercial Company and Rudolph Neumann

Rudolph Neumann, head of the Alaska Commercial Company trading post at St. Michael, actively collected for the ACC and their Museum in San Francisco during the

⁷⁹ Long and narrow umiat with inverted triangular sails on drill bows VK334:1 and VK334:4 closely resemble drill bows engraved in the East Cape style acquired by Frederick W. Beechey in 1826. The caribou resemble those on drill bows acquired by Jacobsen, also said to come from Kauwerak Bay, while the killed caribou, hanging skins, and kettle hanging over a fire closely resemble drill bows acquired by Edward Nelson in the Cape Nome style.

⁸⁰ The three pictorial engraved drill bows collected by Wrangell include: K-2295/1, K-2295/2 and K-2295/3. The three drill bows carry a provenience of the southern coast of the Seward Peninsula but have a style of pictorial engraving associated with carvers from Little Diomede.

1870s-1890s (Fig. 84). Neumann gleaned objects from nearby villages before the arrival of Smithsonian collectors causing Nelson to remark in 1880 that he, “bought only a small number of specimens here [Unalakleet] as the ground has been well-worked before by native traders of mine and Mr. Neumann.”⁸¹ Despite St. Michael being a competitive hub for field collectors, Neumann appears to have remained on friendly terms with museum ethnologists. For example, a Native man from Unalakleet named “Lalyaluk” collected ethnological objects and prepared animal specimens for both Nelson and Neumann.⁸² Assisted by local traders, Neumann sent eight engraved drill bows to the ACC Museum in San Francisco. An old catalogue label for drill bow PHMA 2-1425 reads, “Drill Bow. No. 6. Drill bow with view of the St. Michael. Collected by Rudolph Neumann. St. Michael.” (see Ch. 7, Fig. 290).⁸³



Fig. 84. “Alaska Commercial Co’s Buildings at St. Michaels, Alaska.” Captain Michael Healy stands on the landing and Sheldon Jackson appears at the bottom of the steps. Photograph in an album compiled by Alfred L. Broadbent aboard the U.S. Revenue

⁸¹ SIA, *Nelson Journals*, April 2, 1880.

⁸² SIA, *Nelson Journals*, April 12, 1878 and December 28, 1879.

⁸³ To ACC museum staff in California, Alaska appears to have been rather ill defined; the back of the catalogue label for drill bow 2-1425 states, “Presumably St. Michael is name of the boat L.L.L.” Phoebe A. Hearst Museum Accession Files, ACC Collection.

Cutter *Bear*, 1891. Courtesy Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, WA Photos 63, object id 10001586.⁸⁴

François Mercier

François Xavier Mercier, a French-Canadian fur trader, lived and worked in the Yukon District of Alaska from 1868-85 (Finn Yarborough 1986). Mercier arrived in Alaska as a founding member of the Pioneer Company but the venture dissolved after one year and Mercier soon found employment with the Alaska Commercial Company. Mercier worked for the ACC from 1869-77 serving as general agent for the St. Michael-Yukon District between 1872-75. In 1877 Mercier left the ACC to take a position with the competing Western Fur and Trading Company and continued to establish trading posts including Belle Isle station in 1880. Following the ACC's purchase of the Western Fur and Trading Company in 1883, Mercier stayed on in the employ of ACC until 1885 when he left Alaska for San Francisco (Finn Yarborough 1986:xi).

Mercier arrived in St. Michael on the heels of Smithsonian ethnographer William Dall's departure in 1868. During Mercier's stay in Norton Sound, he witnessed the rising popularity of St. Michael as a gateway to interior Alaska via the Yukon River, a lively trading locale and a temporary station for ethnographers and collectors. Despite Mercier's tireless role to expand the interests of the fur trading companies, he still managed to assemble a large collection of almost 900 Alaska Native objects from Norton Sound, the Bering Strait Islands and the Arctic Coast.⁸⁵

⁸⁴ Alfred L. Broadbent was an engineer on the U.S. Revenue Cutter *Bear* between 1885-1892.

⁸⁵ Mercier traveled extensively across the Yukon-Kuskokwim area where he would have had opportunity to purchase some of these objects directly from their makers while other objects were probably acquired from Native and Western sellers plying the fur trading posts.

Mercier's collecting activity in the area overlapped with both Lucien Turner and Edward Nelson but the fur trader does not seem to have minded the competition as he writes admiringly that Nelson "made a superb collection of specimens for the Smithsonian Institute." (Finn Yarborough 1986:59). Nelson also seems to have been on amicable terms with the ad hoc collector. In 1878 Nelson makes note of the summer arrival of Mercier and Bishop Segher and in 1881 Nelson describes going across the island to visit Mercier and Mr. Greenfield at the Western Fur and Trading Company at which time Mercier presented Nelson with a jade adze from the Yukon-Koyukuk area.⁸⁶ Mercier appears to have paid particular attention to Turner and Nelson's collecting practices with a similar intent to assemble a comprehensive ethnographic collection for a museum. Mercier succeeded in this regard as shortly after his departure from Alaska he sold the bulk of his collection in 1886 to the Canadian Museum of Civilization in Ottawa.⁸⁷ The CMC accession of approximately 900 ethnographic objects includes tools, fishing and hunting equipment, clothing, and engraved ivory carvings.

Mercier's collection includes seven pictorial engraved drill bows and almost twice as many wood drills and mouthpieces. The seven drill bows are all ivory and depict the

⁸⁶ SIA, *Nelson Journals*, June 20, 1878 and April 10, 1881. Mercier described the adze as being found with its handle protruding from a tree hugging a mountainside about two day's journey north of the village of Nulato on the Koyukuk River. Nelson describes the location as one from which Ingaliks used to frequently collect jade to sell or trade. Nelson identifies the adze in his diary as field catalog number 7415, which does not seem to correspond with NMNH museum records and might refer to E176204, an axe with a jade head acquired by Nelson in St. Michael and accessioned in 1897. During his visit on April 10, 1881, Mr. Greenfield also made a present to Nelson consisting of two loon skin headdresses brought from Kotzebue Sound earlier in the winter.

⁸⁷ Due to Mercier's proclivity for collecting, he could have also acquired and sold objects to the Alaska Commercial Company while intermittently employed by the ACC between 1869-85. Some of these objects could be those attributed to anonymous ACC agents now in the Phoebe A. Hearst Museum of Anthropology, Accession 167.

engraving styles of Unalakleet, Sledge Island and Port Clarence.⁸⁸ The engraved drill bows are important as they reveal what objects were available to one of the earliest long-term collectors in Norton Sound and Mercier's acquisitions provide a complement to collections made by Smithsonian naturalists.

Charles L. Hall

In 1901, Charles L. Hall departed Norton Sound for San Francisco after being employed for eight years by the Alaska Commercial Company. From 1894-1901, Hall assembled a large collection of Alaska Native material culture and headed out to find a buyer once he arrived in California.⁸⁹ Hall was aware that the University of California (UC) Museum had recently acquired the ACC collection and hoped the Museum would also purchase his material.

In January 1902, Frederic W. Putnam, the UC Museum's first director, received a catalogue and letter from Hall describing his collection as "one of the most complete ethnological and natural history collections that has ever been taken out of Alaska."⁹⁰ The Museum was sufficiently impressed with Hall's collection to turn the sales request over to Phoebe Apperson Hearst who promptly purchased Hall's entire collection and on August 12, 1902, 48 cases and 3 packages arrived at the museum including Case 28 with

⁸⁸ Mercier did not keep detailed records of his acquisitions and four of the drill bows are described as "Norton Sound" while the remaining three carry a general provenience of "Alaska."

⁸⁹ Hall's collecting dates are delineated in Museum correspondence, "Mrs. Phoebe A. Hearst has received an extensive collection of specimens of natural history and ethnology from western Alaska and the Yukon River basin. This material was brought together by Mr. Chas. L. Hall during 1894 to 1901. The collection is one of the most thoroughly representative sets of specimens that has been obtained from these regions..." Last Quarterly Report of the Department of Anthropology of the University of California, Reports, 1901-1902, Box 2, CU-23, Guide to the Records of the Department of Anthropology, The Bancroft Library, University of California, Berkeley.

⁹⁰ Letter from Hall to UC Museum, January 9, 1902. Phoebe A. Hearst Museum of Anthropology, Accession Records, Accession 46, Phoebe Hearst.

“a number of ivory native pipes and etchings on ivory.”⁹¹ Two years later in 1904, the UC Department of Anthropology arranged an exchange of over seventy-five objects with the Peabody Museum of Archaeology and Ethnology at Harvard University. The exchange included at least forty Eskimo items acquired by Charles Hall including engraved drill bow 4-28-10/63546.⁹²

Charles Hall collected at least six pictorial engraved drill bows including five held at the Phoebe A. Hearst Museum and one drill bow at the Peabody Museum. The six drill bows contain their original sealskin straps and one drill bow (2-1562) shows a carver’s careful repair with sealskin lashing used to bind the broken bow. All the drill bows carry a museum provenience of Lower Yukon or Northwest Bering Sea but their engraved motifs denote a wide variance of styles including those of Barrow, Sledge Island, Golovin and St. Michael. Hall acquired the drill bows at a time of rapidly increasing Western presence vividly displayed across the bows’ surfaces including depictions of the St. Michael Fort (2-1425), a paddle steamer and whaling ships (2-1561) and Westerners guiding a horse from a Revenue Cutter ship (2-1559).

⁹¹ Phoebe Hearst had a number of mounted animal heads shipped to Pleasanton rather than the museum at Berkeley. A letter accompanying the shipment reveals the considerable value Hall placed on furs and ivory carvings, “I beg to mention, in case you would wish them set aside that in the Berkeley shipment case No 28 contains a number of ivory native pipes and etchings on ivory, and case No 48 among other things contains a medium size polar bear and 2 land otter skins. other ivories and skins are scattered through the balance of the cases.” Letter from Hall to Hearst, August 12, 1902, Phoebe A. Hearst Museum of Anthropology, Accession 46.

⁹² Drill bow 4-28-10/63546 had the previous UC Museum catalogue number of 2-1560. Peabody Museum of Archaeology and Ethnology Accession Records, Accession 4-28-10, Donor: Department of Anthropology, University of California, Berkeley. Frederic W. Putnam held concurrent positions as the University of California Museum Director from 1901-09 and Curator of the Peabody Museum of Archaeology and Ethnology from 1875-1909. Putnam’s exchange of the Charles Hall material suggests he was attempting to simultaneously build up and balance the two museum’s Arctic collections.

Lt. George T. Emmons

Lt. George Thornton Emmons developed an interest in Alaska Native cultures while stationed as a naval officer in Sitka during the 1880s and over his lifetime acquired over 12,000 objects with a particular emphasis on Tlingit and Tahltan material.⁹³ In 1888 Emmons sold his first major collection of 1351 objects to the American Museum of Natural History with his collecting practices outlined in the Annual Report of the Trustees:

First in extent and importance is the collection gathered during five years residence in Alaska, by Lieut. G. T. Emmons, who enjoyed remarkable opportunities for gaining the confidence and helpful cooperation of the natives in obtaining the rare, and frequently, unique handiwork of their ancestors . . . Each specimen was obtained by the Lieutenant himself, who kept a full record regarding it, and from such authentic data he has prepared an elaborate catalogue, with full notes on the use made by the natives of each kind of object. Many implements of stone and highly ornamented carvings on ivory are found in the series which is probably more complete and authentic than any similar collection ever made in that portion of our continent. (Annual Report of the Trustees For the Year 1888, AMNH Accession Files, 1869-90-105)⁹⁴

Following retirement from the Navy in the 1890s, Emmons continued to collect, exchange, purchase, and sell Alaska Native material. Emmons appears to have brokered exchanges with museums with the intent to assemble his own comprehensive collections

⁹³ Emmons began research and writing for a book on Tlingit culture in 1894 and worked on the manuscript on for over forty years until his passing in 1945. Anthropologist Frederica de Laguna tackled the organization and editing of Emmons' manuscript in 1955 and published the amended manuscript in a comprehensive volume, see George Thornton Emmons, "The Tlingit Indians," Frederica de Laguna (ed.), *Anthropological papers of the American Museum of Natural History*, 70(1991).

⁹⁴ Emmons first offered a larger collection consisting of almost 12,000 objects which the AMNH initially considered purchasing for a price not over \$12,000. The objects were considered to be "old and original and have a standard and increasing value. They have not been brought together by chance but in regular thoughtful sequence . . . Each specimen is carefully numbered and a description generally very full and of permanent is given in the catalogue." Curator of Department of Ethnology Report, January 14, 1888, AMNH, Anthropology Archives, Accession 1869-90-105. Despite raising funds through museum subscriptions and donations from private individuals, including John Sloane and John D. Rockefeller, the AMNH only purchased about one-tenth of the offered collection. Annual Report of the Trustees For the Year 1888, Ibid.

before turning around and selling them for a presumably higher price.⁹⁵ Emmons left scant records regarding his Arctic acquisitions but some of them were purchased from S. Kirschberg, a dealer of ethnological material from Victoria, British Columbia.⁹⁶ Emmons sold and exchanged a total of seven engraved drill bows to the AMNH in 1894, 1906 and 1916.⁹⁷ He listed various proveniences for the drill bows including Kotzebue Sound, Port Clarence, Point Barrow and Bering Strait. In 1913, Emmons sold several bow drill sets to the Alaska State Museum but only one engraved drill bow (II-A-379).⁹⁸

Sheldon Jackson

Reverend Dr. Sheldon Jackson first traveled to Alaska in 1877 and over the next twenty-five years endeavored to assist the educational, spiritual, and economic welfare of Alaska Native communities (Carlton 1992). In Jackson's role as Commissioner of

⁹⁵ Emmons' practice of making exchanges with the AMNH is noted by Clark Wissler, "Heretofore I have traded with Emmons for specimens we needed, but we have no more to spare; hence, we must purchase. The collection we now have under consideration is a good one and the price is low enough. It is from a district from which we have nothing." Letter from Wissler to Dr. Lucas, July 17, 1916, AMNH, Anthropology Archives, Accession 1916-70. Emmons also attempted to boost the sales appeal of his offerings by putting "work" into the collections which consisted of cleaning, labeling, writing object descriptions, and compiling catalogue lists. Letter from Emmons to Clark Wissler, March 22, 1916, Ibid.

⁹⁶ Franz Boas notified Morris Jesup of an upcoming sale of S. Kirschberg's stock of Alaska Native objects noting Kirschberg is "A dealer in ethnological specimens from Victoria B.C. from whom I understand Lieut. Emmons bought quite a number of specimens..." Letter from Boas to Jesup, November 18, 1896, AMNH, Anthropology Archives, Accession 1896-42. The Kirschberg purchase included ivory drill bow 60/1201 with pictorial engraving in the style of Little Diomedea.

⁹⁷ In 1916, Emmons offered the AMNH a collection of 1300 objects he described as originating from the Kuskokwim to Point Barrow. Emmons asked \$2600 for the complete set of which the AMNH purchased 375 objects for \$650. Letter from Emmons to Wissler, March 22, 1916, AMNH, Anthropology Archives, Accession 1916-70. Included in the acquisition were two drill bows for which Emmons provided cursory descriptions "60.1/4205 1091. Drill bow of ivory, ornamentally cut out on side to represent bears, reindeer and nuik [sic], from Kotzebue Sound, Alaska." And "60.1/4227 1113. Drill bow of walrus ivory etched in scenes for the life of the Eskimo and at one end is represented a white mans house. From the Bering Sea coast of Alaska, about Bering Straits." Ibid.

⁹⁸ The 1913 Emmons purchase includes approximately 800 objects primarily from Yup'ik and Iñupiat communities. Emmons did not identify a collecting location for II-A-379 consisting of a bone drill bow and wood drill with the former featuring rather crude engravings described by Emmons as " 348. Bow of bone ornamentally etched on top in circles, on bottom animals, birds + fish, cord of hide." Alaska State Museum, Accession Records, Territorial Specimens from Lieutenant Emmons.

Education for Alaska from 1885-1902, he inspected new schools and worked to establish Siberian reindeer herds in Northwest Alaska. He practiced a philosophy of salvage ethnography, helping to establish the “Society of Alaska Natural History and Ethnology” with a stated purpose “to collect and preserve, in connection with the Sitka Industrial Training School, specimens illustrative of the natural history and ethnology of Alaska and publications relating thereto.” (Gunther 1976:7).

During his official state duties, Jackson often rode aboard the Revenue Cutter *Bear* and disembarked to collect artifacts or distributed to local non-Natives “lead, fabric, flour, beans, rice and matches” to exchange for objects on his behalf (Carlton 1992:49) (Fig. 85). Jackson managed to assemble large northern collections from Point Hope, Eastern Siberia and St. Lawrence Island, describing a trading incident off Gambell in 1889-90, “Before we dropped anchor, four or five umiaks, loaded with natives, were waiting to board us. As soon as the anchor went down they paddled up to the gangway, and from sixty to seventy men, women, and children came aboard, prepared to barter walrus tusks, ivory carvings, fur clothing, native boots and shoes, seal skins, etc.” (Jackson 1893:1271).⁹⁹

Sheldon Jackson’s keen trading methods resulted in a large private collection that developed into the Sheldon Jackson Museum in Sitka founded in 1888. By 1893, the Museum held almost 5,000 objects with additional donations from Revenue Cutter Service personnel, traders, missionaries and military staff including Lt. George T. Emmons (Carlton 1992:49). Sheldon Jackson acquired at least six engraved drill bows

⁹⁹ The *Bear* also stopped at King Island where Jackson (1893:1273) “secured a number of articles of interest for the museum of natural history and ethnology at Sitka.”

with the Museum in Sitka receiving five drill bows carrying proveniences of Point Hope, Kotzebue Sound and the general area of Alaska.

In 1893, Jackson teamed up with Miner Bruce to participate in the World's Columbian Exposition in Chicago where Jackson displayed a large collection from the "Yukon River Valley and Adjacent Sea Coast; King's Island; Port Clarence; Tchucktchee Tribe Arctic Siberia; Holy Cross; Bay Siberia; Cape Lerdze."¹⁰⁰ Following the close of the Columbian Exposition, Jackson sold a large portion of his collection to the Field Museum including one pictorial engraved ivory drill bow (Fig. 86).



Fig. 85. Sheldon Jackson (third from left) aboard the U.S. Revenue Cutter *Bear*, c. 1892. (from Carlton 1999:19). The man on the far right appears to be Miner Bruce whom Jackson appointed head of the Teller Reindeer Station in 1892.



Fig. 86. Engraved ivory drill bow with bearded sealskin strap. Collected by Sheldon Jackson and displayed at the World's Columbian Exposition of 1893. FM 12598.

¹⁰⁰ From "Collection of specimens from Alaska and Siberia for Prof P. W. Putnam by Sheldon Jackson 1892." Peabody Museum, Anthropology Archives, Box 9, Folder 9.2.

Miner W. Bruce

Miner W. Bruce (1895) traveled to Alaska in 1889 as a journalist from Nebraska in pursuit of material for a series of newspaper articles. Enthralled with the northern country Bruce made the acquaintance of Sheldon Jackson who helped secure Bruce the opening appointment of superintendent for the Teller Reindeer Station on the north shore of Port Clarence.¹⁰¹ Miner Bruce directed the Teller station from 1892-93 but was fired following accusations of trading guns and liquor to the local Natives.¹⁰² Bruce departed Teller with a collection of artifacts that he sold a substantial portion of to the Field Museum in 1894 (VanStone 1976). Encouraged by the sale of his first collection, Bruce proposed another assemblage to the museum and set up a northern Alaska trading post called “Fort Morton” which formed the basis for his 1894 Kotzebue Sound collection he also sold to the Chicago Field Museum (Ray 1987:33, VanStone 1980).¹⁰³

Following his sale to the Field Museum, Bruce shopped around for other buyers approaching Franz Boas at the AMNH with his collection prompting Boas to write to Morris K. Jesup in 1898 in promotion of the purchase:

¹⁰¹ Miner Bruce took initial charge of the Teller Reindeer Station, and approximately 175 reindeer, with the assistance of Bruce Gibson, four Chukchi herders and a number of Alaska Eskimo apprentices. Bruce and Gibson were also required to teach at the “Teller Reindeer Training School” which proved difficult due to the inability to speak Chukchi or Iñupiaq (Ray 1992:222).

¹⁰² Captain Michael Healy, possibly resentful of the trading competition, charged Bruce of exchanging whiskey for reindeer from Siberian Natives. Following Bruce’s departure in 1893, William and Ellen Lopp moved from their mission at Cape Princes of Wales to oversee the Teller station and school for a year and returned with over a hundred reindeer to start a herd in Wales. In 1894, sixteen Lapps were brought to Teller Station and replaced the Chukchi as reindeer herders. The Teller Reindeer Station closed in 1898-99. (Ray 1992:222-23).

¹⁰³ In 1893 Bruce apparently left two traders at Fort Morton to make collections while he returned to Seattle for the winter and returned the next spring to pick up the assemblage from Kotzebue Sound (Ray 1987:33). Bruce sold 382 objects in his Kotzebue collection to the Chicago Field Museum in February 1894 for \$550.00. Field Museum, Anthropology Archives, Accession 1897.96. Bruce also sold five engraved walrus tusks in 1894 to the AMNH for \$20.00. AMNH, Anthropology Archives, Accession 1894-5, Cat. Nos. 1/4286-4290.

Mr. Bruce has been living on the east coast of Bering Sea for seven years, and he has made it a point to gather all the old ethnological material that can be found in that country...I presume his activity in this line has been so thorough that very little good old material remains in that country, so that investigators whom we shall have to send to that area to work will not be able to make a good museum collection, except in so far as the ordinary present every-day life of the people is concerned. (Letter from Boas to Jesup, November 18, 1898, AMNH, Anthropology Archives, Accession 1899-13)¹⁰⁴

After much back-and-forth, AMNH agreed to purchase \$250 worth from Bruce's collection including seven pictorial engraved drill bows.¹⁰⁵ Boas declared the remaining articles duplicates and contacted the Peabody Museum, Carnegie Museum and Brooklyn Museum to see if they would purchase the remainder of the collection.¹⁰⁶ Frederic W. Putnam, director of the Peabody Museum, raised funds to purchase \$50 worth of Bruce's Port Clarence collection including one engraved ivory drill bow.¹⁰⁷ An additional 331 objects including two engraved drill bows and a number of drills from Bruce's collections were sent to William J. Holland, director of the Carnegie Museum.¹⁰⁸ George

¹⁰⁴ Bruce didn't give up on the Chicago Field Museum as a potential buyer and sold additional collections to the museum including 1172 objects acquired between 1895-96, Accession 1896.259 and a number of objects in Accession 1898.546.

¹⁰⁵ AMNH Accession 1899-13.

¹⁰⁶ Hooper spent two months attempting to raise \$400 by subscription to purchase the offered portion of Bruce's collection but failed to reach that goal and did not purchase any objects. Letter from Franz Boas to Miner Bruce, February 23, 1899. AMNH, Anthropology Archives, Accession 1899-13.

¹⁰⁷ Peabody Museum, Anthropology Archives, Accession 98-18-10; drill bow 98-18-10/52140.

¹⁰⁸ Unsuccessful with selling a large portion of Bruce's collection to the Brooklyn Museum, Boas contacted William Holland and sent him an unsolicited \$100 worth of material in "one trunk and one bundle" hoping Holland would buy it for the Carnegie Museum. Accompanying the material was a "List of specimens collected at Port Clarence, Alaska for the Carnegie Museum" with 331 objects including two engraved ivory drill bows, five mouthpieces and eight drills. Letter from Boas to Holland, December 22, 1898. AMNH, Anthropology Archives, Accession 1899-13.

The Carnegie Museum retained a portion of Bruce's collection as Accession 816. The Museum has three engraved drill bows with different accession numbers suggesting the two engraved drill bows from Bruce were sent elsewhere.

Heye also acquired an engraved drill bow from Miner Bruce, which entered the former's collection by 1904.¹⁰⁹

Altogether, Miner Bruce acquired at least fifteen pictorial engraved drill bows and almost two thousand additional objects primarily from Seward Peninsula and Kotzebue Sound.¹¹⁰ Interestingly, the Field Museum does not hold any engraved drill bows by Bruce, which has prompted scholars to assume Bruce did not collect any engraved drill bows or there were no drill bows left in the villages by the late 1890s (Ray 1996:105; Hollowell 2002:287).¹¹¹ In 1895 Bruce published *Alaska: Its History and Resources, Gold Fields, Routes and Scenery*, a short volume focused on Alaska's natural resources and economic potential. Bruce (1895:106) skims over his collecting activity without mention of drill bows describing an Arctic family using the modern materials flint, steel and fibrous material to start a fire.

Daniel Neuman

Dr. Daniel S. Neuman moved to Nome in 1910 and over the next ten years traveled across the Seward Peninsula providing medical assistance to Alaska Native communities (Wallen 2000).¹¹² While based in Nome, Neuman acquired over 3000 objects from Northwest Alaska, St. Lawrence Island and Siberia through trade, purchase and in

¹⁰⁹ Drill bow NMAI 2142.

¹¹⁰ Fifteen engraved drill bows appear in an 1899 list of Miner Bruce's collection. AMNH, Anthropology Archives, Accession 1899-13.

¹¹¹ The Field Museum's collection of 14 engraved drill bows were acquired by E. O. Stafford (1), E. E. Ayer (4), Sheldon Jackson (1), Joseph Nathan (3), John Borden (3) A. W. F. Fuller (1) and an unknown collector (1).

¹¹² Dr. Neuman began a medical practice in Colorado in 1895 and in 1910 received a request from the U.S. Government to provide services for the U.S. Department of Health and Education in Nome, Alaska. Dr. Neuman specialized in treating eye disease and one of his first assignments resulted in treating Iñupiat people for an eye disease linked to a parasite found in caribou (Wallen 2000).

exchange for his medical services. Neuman also sought the assistance of others to help him grow his collection as seen in the photo of Dall acquiring objects for Neuman in Point Hope (Fig. 76). In 1920 Neuman moved his family and large collection to Juneau where he garnered the attention of Governor Thomas Riggs. Governor Riggs promoted efforts to appropriate Neuman's collection and in 1921 the Alaska Historical Library and Museum purchased the bulk of his material creating the foundation for Juneau's first museum.¹¹³

Neuman appears to have valued oral traditions and collected stories during medical visits while also employing Paul Silook from Gambell to record additional stories and information about indigenous culture (Hollowell 2009:28). Renée Coudert Riggs adapted several of Neuman's stories and published them in an illustrated children's book titled *Animal Stories from Eskimo Land* (1923).¹¹⁴ Neuman also took over a hundred photographs of Siberian and Alaska Natives with a focus on portraits and village scenes.¹¹⁵ Several photos reveal Neuman's interest in contemporary artists from whom he was making collections as seen in an image taken on the beach at Nome with three Bering Strait carvers working next to their wood toolboxes while visiting with Walter Shields, superintendent of the Reindeer Station (Fig. 87).¹¹⁶

¹¹³ The Alaska Territory purchased Neuman's collection for \$15,000 in 1921. Alaska State Museum, Neuman Accession.

¹¹⁴ Riggs possibly retained Neuman's original collection of stories, as the transcriptions are not with his papers in the Alaska State Museum or Alaska State Library in Juneau.

¹¹⁵ Most of the photographs feature handwritten captions and are compiled in a leather album now in the Alaska State Library Historical Collections, Dr. Daniel S. Neuman. Photographs, 1911-1920. ASL-PCA-307.

¹¹⁶ Walter C. Shields also served as the superintendent of the Northwest District of the Bureau of Education. Shields became one of the first to succumb to the 1918 epidemic in Nome. Neuman also became



Fig. 87. Bering Strait ivory carvers with Walter Shields on the beach at Nome. Photograph by Daniel Neuman between 1911-1920 with the caption “Mr. Shields and ivory carvers. Nome.” Alaska State Library, Historical Collections, ASL-P307-0168.

Neuman’s extensive collection at the Alaska State Museum includes a wide range of objects from ceremonial masks and buckets to implements for hunting whale and caribou. An illustrated catalogue compiled by Neuman from 1910-1916 provides information on objects’ location of acquisition, materials and method of use. The catalogue lists eight engraved drill bows with proveniences of Wales, King Island, Nome and Seward Peninsula. Neuman created illustrations for two drill bows including number “1671 Wales, Shaman’s drill bow covered with engravings of mythical creatures,” which appears to be drill bow ASM II-A-9 (Neuman Accession Files) (Figs. 88-89). Altogether, the ASM holds ten engraved ivory drill bows collected by Neuman with another Neuman drill bow (1972.066.001) at the Anchorage Museum at Rasmuson Center. The drill bows are significant in that they form the largest known assemblage of Nome style drill bows, which are a transitional form between old pictorial style and realistic Western

quite ill during the epidemic but survived (Renner 1979:45). Shields and Neuman appear to have been acquaintances as Shields appears in several of Neuman’s photographs.

engraving.¹¹⁷ For instance, drill bow II-A-4 appears to be engraved by a carver from Wales working in the Nome style of pictorial engraving. For example, II-A-4 combines an older pictorial style featuring figures with drilled heads and vertical lines with a new pictorial style featuring large figures and animals with thick bodies and rocker fill (Fig. 90a-b).¹¹⁸ Ivory drill bow II-A-4 reflects a transitional engraving period marked by a move from carvers creating utilitarian objects to decorative items made for sale.

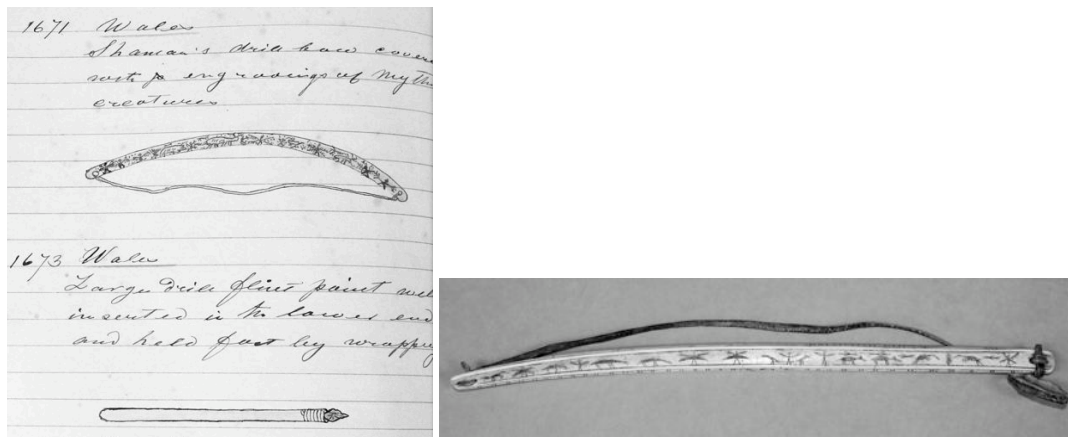


Fig. 88. Illustration of an engraved drill bow (ASM II-A-9) and wood drill by Daniel Neuman in his *Catalogue* of collections from 1910-1916. Alaska State Museum Accession Files, Neuman Collection.

Fig. 89. Engraved ivory drill bow ASM II-A-9 collected and illustrated by Daniel Neuman.



Fig 90a-b. Ivory drill bow with bearded sealskin strap engraved with a combination of old style pictorial motifs and modern style imagery etched with rocker technique. ASM II-A-4.

¹¹⁷ The transition to a new engraving style finds a counterpart in changing lifestyles as seen in Neuman's photographs of Native students in Western attire and images of villagers assembled for church service.

¹¹⁸ For detailed discussion on the Nome style of pictorial engraving see Chp. 7.

Contemporary Thoughts on Collectors

Contemporary carvers express mixed feelings towards past collectors, particularly early archaeologists who are viewed from the perspective of diggers who unearthed their heritage and took it away never to be seen again (Steve Oomittuk April 2010; Edwin Weyiouanna June 2012). Personal collections of Native community members reveal an interesting discrepancy between the prevalence of ancient articles and the lack of historical material.¹¹⁹ Due to ethnographic field collecting in the nineteenth century, the majority of visible material disappeared from communities and moved into museums. In contrast, ancient objects, those left buried and undiscovered in the ground, survived waves of collecting and have since been unearthed and discovered piece by piece by community members. Thus, within Bering Strait communities, many carvers have greater access to ancient ivories and designs than nineteenth century visual materials.

Community carvers recognize the need for contemporary collectors and experience varied interactions with prospective buyers. Francis Alvanna (April 2012:5) notes the expression “that’s beautiful” signifies a collective code meaning the onlooker is not going to make a purchase. Developing relationships with individual collectors appears paramount as shared by ivory carver Vince Pikonganna (April 2012) of Nome who describes a buyer he met previously coming to his home and purchasing all of his wife’s beadwork. Likewise, Sylvester Ayek (April 2012) of Nome benefits from the gratuitous use of a friend’s shop in Anchorage who is also an avid collector of his work. Other carvers foster relationships with gift shop owners and gallery managers to sell their work. For example, Jerome Saclamana (April 2012) has sold his carvings to Maruskiya’s,

¹¹⁹ See Ch.11 for further discussion on community member collections.

a local gift shop in Nome, for almost twenty years (Fig. 91). Likewise, for many years Brian Sockpick (April 2012) of Nome sold the majority of his etched ivories to the late Victor Goldsberry who ran the gift shop Chukokta-Alaska Inc. in Nome. Other ivory carvers such as Stanley Tocktoo (June 2012) and Albert Olanna (June 2012) of Shishmaref send pieces of their work to outside shops including the Alaska Native Arts Gallery in Anchorage (Fig. 92).



Fig. 91. Jerome Saclamana with his whalebone sculpture at Maruskiya's gift shop in Nome, AK. 2012.



Fig. 92. Ivory carvings and other artwork for sale in the Alaska Native Arts Gallery. Anchorage, AK. 2012.

Carvers' workshops at the Sulanich Art Gallery in Kotzebue and the Iñupiat Heritage Center in Barrow are largely funded by the purchase of artwork in the attached galleries. Both of the cultural centers represent an attempt to bridge the divide between creator and collector by offering tourists and art buyers to observe and interact with carvers while they work. While in Barrow during 2012, a tourist from Michigan stepped into the Traditional Room at the IHC and came over to observe William Simmonds carving a walrus skull mask (Figs. 93-94). Simmonds (May 2012) explained his carving and the origins of the various natural materials while the visitor nodded in quiet interest. These interactions in carving workshops represent a form of shifting contact zone offering

visitors a chance to interact with Iñupiat artists and perhaps alter existing perceptions of Arctic cultures (Clifford 1997).



Fig. 93. William Simmonds carving a walrus skull in the IHC. Barrow, AK. 2012.



Fig. 94. Carved walrus skull mask by William Simmonds. Barrow, AK. 2012.

CHAPTER 3

ON THE HUNT FOR IVORY

As an ivory carver, one must have a steady supply of raw material on hand to use when the need arises. Within the drill bow study group, 270 of the 276 engraved drill bows are made of walrus ivory (see Appendix E). The carvers' preference for ivory reflects the material's innate strength and endurance, in addition to being a smooth surface upon which to engrave. Like contemporary carvers, those of the nineteenth century pursued two primary methods of acquiring raw walrus ivory: through hunting or through resource exchange including trade and purchase. Less frequent modes include looking for walrus and mammoth ivory washed up on the beach or buried in mud, diving for ivory on the sea floor and receiving unworked ivory as a gift. Bering Strait gender differentiation during the nineteenth century typically meant each man needed to make his own tools, hunting implements and kayak.¹²⁰ In order to fashion a drill bow, a carver must have access to a nice size piece of ivory, typically the entire length of a tusk. Access to a full-size walrus tusk and a personal store of ivory would have signified the drill bow carver was mature and experienced enough to take part in hunting walrus. Thus, drill bows can be seen as a status of manhood as well as a visual emblem of skill and respect for past hunting success.

Contemporary carvers speak in awe of the amount of ivory available to carvers of the past. Levi Tetpon (June 2012) shares that even fifty years ago, carvers had access to more material as noted by the abundance of letter openers, cribbage boards and other large items which would not be made today due to the large amount of ivory the objects

¹²⁰ In contrast, most villages viewed creation of an umiak as a group responsibility.

require. The abundance of nineteenth century drill bows made out of large sections of ivory also suggests carvers in the past had easier access to this raw material. Unlike the abundance of ivory used by nineteenth century artisans, contemporary carvers often have to barter or purchase unworked ivory due to resource scarcity (Henry Koonook April 2010). Reduced quantities of raw ivory reflect changes in hunting practices as well as alterations in walrus migration patterns and population decrease in the more northern herds. With a high premium on ivory, small pieces may be incorporated into larger whalebone carvings or used as knobs for baleen baskets. Carvers use every bit of ivory including the shavings and dust. Carvers may also scour local beaches and muddy riverbanks searching for needed ivory or desirous for the golden brown patterning of mineralized ivory.

Pacific Walrus / *Aiviq*

Pacific walrus, *Odobenus rosmarus divergens*, appear as rather shapeless mammals with massive thick-skinned bodies often approaching two tons in weight for males and upwards of a ton for females. Gary Sockpick (June 2012:15) of Shishmaref describes the difficulty in piercing thick walrus skin, “Their skin is real tough, like sandpaper, after it’s dry. Even with the sharpest knives, it’s real hard to cut that leather. But when they’re in the water, when they’re soaked, it’s a little easier. But when they’re hauling on the ice for a long time, all dry, it’s real hard.” Between the walrus’ wrinkled layers of cinnamon-brown skin, are red-rimmed eyes, a snout with stiff bristles, small holes for ears, and a pair of flippers. Most walrus have about a dozen small teeth and two large tusks or canine teeth extending up to 75 cm in length, useful for making holes in the ice, hauling out on ice or land, or for fending off a domineering male. Pacific walrus

thrive on mollusks dug from the muddy substrata of the Beringia shelf and fear natural predation from killer whales and polar bears.¹²¹ Bering Strait communities hold various narratives regarding the creation of walrus, known generally as *aiviq* in Iñupiaq. In a tale from Eastern Siberia, Raven creates Arctic fauna by throwing wood shavings into the water from which pine chips turn into walrus, oak chips become seals, stone-pine chips transform into polar bears and black birch shavings emerge as large whales (Bogoras 1975:153).¹²² A tale told by Ticasuk from Unalakleet describes a long ago exchange between walrus and ptarmigan in which the bird gives his crop to walrus to place in his neck allowing him to float, and walrus offers ptarmigan some of his claws to dig in the hard snow (Ticasuk 1987:119-120).¹²³

Utilizing sea ice for transport, Pacific walrus have the potential to nearly occupy the entire Bering Strait during their annual migratory cycle. Scientific research from the past fifty years reveals that during the winter breeding season, walrus congregate in groups of hundreds to thousands on thick ice floes in two prime areas of the Bering Sea including southwest of St. Lawrence Island to the Gulf of Anadyr and in northern Bristol Bay (Ray et al. 2006). Following breeding season, walrus herds separate with mainly adult females and dependent young moving northward with pack ice into the Chukchi

¹²¹ While a schoolteacher and missionary in Wales between 1890-93, Harrison Thornton (1931:164) notes that the villagers “have a queer story about the way in which a bear kills a walrus: He dives down to the bottom of the sea, picks up a large stone, and crushes the skull of his victim with it.”

¹²² This story has several versions with the version here told to Waldemar Bogoras in October 1900 by A'ttinqueu, a Maritime Chukchi man at Mariinsky Post. The tale goes on to describe the creation of additional sea and land animals using “chips from all the other trees became fish, crabs, worms, every kind of beings living in the sea; then moreover, wild reindeer, foxes, bears, and all the game of the land.” (Ibid.)

¹²³ Ticasuk is the Iñupiaq name of storyteller Emily Ivanoff Brown born in Unalakleet during 1904. Ticasuk experienced the cusp of early twentieth century cultural transformation as her mother held to the traditions of her Eskimo heritage while her father pursued the white man's culture.

Sea before returning south to the Bering Sea in winter. In contrast, adult males head to summer haulout sites along the coasts of Alaska and the Chukchi Peninsula where they take multi-day offshore foraging trips (Jay and Hills 2005).

For many generations, subsistence communities along the Arctic and subarctic coasts have pursued walrus from their strategic locations close to breeding and haulout areas (Fig. 95). Heavily dependent on walrus meat, skins and ivory, subsistence hunters carry in-depth knowledge of local walrus movements with a complex terminology for specific age-sex groupings (Krupnik and Ray 2007). Walrus provide a main and versatile means of subsistence for hunters and in the old days almost every part of the walrus was utilized. Even dead walrus held potential value for a stranded hunter or villager as noted in a story told by Ohoyahok in Wales during the 1920s. In the story, a young orphan is placed in a wooden box by his uncle and evil aunt and set adrift at sea where at length he reaches the shore. The boy comes upon a dead walrus being eaten by fox and after trapping the fox he sets to work on the walrus and “From the ivory and bones of the dead walrus, he also made many tools such as a shovel from the shoulder blade, an axe from an ivory tusk, and a drill bow so that he might start a fire.” (Garber 1940:207). John Pullock (April 2012:7) of Nome notes that King Islanders, “used ivory for just about everything they need” including seal hooks, harpoon heads and snow beaters to clean sealskin pants.

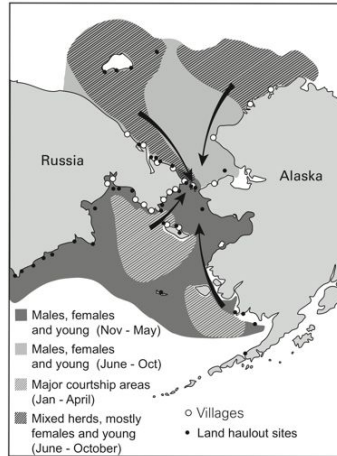


Fig. 95. Generalized seasonal distribution and annual migration patterns of Pacific walrus in Beringia. Open circles indicate villages currently engaged in hunting and monitoring walrus (from Krupnik and Ray 2007:2948).

Stories, Ceremonies and Carvings

Across the Bering Strait, the transformative power of walrus as narrated in oral stories informs relationships between humans and animals ensuring respect and reciprocity towards sharing the land and resources. Shamans of the past were regarded as possessing an ability to transform into walrus and other animals to teach a lesson, help villagers, or correct improper behavior (Fig. 96). One of the first families of Gambell is said to have transformed himself into a walrus for several seasons eventually turning into a complete walrus.

It is said there is only two families that is the real people of Sevookuk (Gambell) One of the man of this family is named Iyakatan, the other one is a woman named Iyoklek. In a story the ancestor of Iyakatan became a walrus his human form was formed to a walrus. They said he went every spring up north with the walruses when they travel toward north and came back in fall. It is said after many years he continued doing this and was formed to a walrus and never more came back. (Paul Silook, letter to Charles Bunnell, August 7, 1928)

In a story called “The Ai’wan Shamans” recorded by Waldemar Bogoras between 1900-1901, two Chukchi men, one a shaman, one a man from Uñisak, enter a St.

Lawrence Island settlement, possibly Gambell, where villagers seize and bind the shaman and kill the man by using a drill to puncture his head. The shaman escapes by hopping across the heads of walrus, which put him on the ice where his own people can find him and where he is told to roar like a walrus when drifting off to sleep, “So he roared like a walrus and immediately turned into one.” (1975:8). The shaman’s people find him transformed but before being harpooned he relates his companions fate so the men of Uñisak assemble together and travel to St. Lawrence Island where they kill many villagers. Another story about a shaman comes from Astachaq of Point Hope, which describes the respect shamans commanded and costs for not heeding that power. In the story a boy mocks shamans with dire consequences:

The round head of Atchuuraq
Has walrus tusks,
Poor boy mocked shamans.
He roared like those who roar like walrus.
One night he grew tusks.
He ran out crying.
One of those shamans
Must have got me!
He’s given me what he wanted!
He slept in the qalgi with the other orphan.
(Asatchaq 1993:118)

Engraved images of walrus-transformation figures appear on six drill bows and feature the heads of walrus and legs of men (Fig. 97; also see “walrus transformation” in Appendix F). A transformative process of turning into walrus or reenacting their behaviors can also be seen in walrus dances. A photograph from the late 1950s illustrates King Island dancers performing a walrus dance wearing carved wooden masks and

walrus gutskin parkas (Fig. 98).¹²⁴ By donning the parkas, the dancers are putting on or becoming a walrus while the parkas also reference materials used by hunters when they pursue these animals in icy waters (Hickman 1987).

Specific parts of walrus also offered special power and were used in certain ceremonies or rites. Jimmie Otiyohok (1929) of Gambell describes a rite to ensure the return of bowhead whales by taking a pair of baby walrus flippers, along with long leaf tobacco, to a sacred area following the end of summer whaling season.¹²⁵ Likewise, engraved drill bow NMNH E44467 collected by Edward Nelson illustrates the value attributed to a walrus head, which hangs on the wall of a qagri, while figures appear to cut up a bearded seal, cook, and visit on top of the roof (Fig. 99). Walrus skulls also appear in Nelson's description of a Bladder Festival held at Kushunuk during the winter of 1878.¹²⁶ Villagers at Kushunuk gathered inside the qagri where hundreds of painted seal and walrus bladders swung from a large bundle of spears, also present were 30 to 40 hunting hats, some painted with carved ivory attachments, and a walrus skull placed behind the entrance hole. During the first evening of the ceremony, the walrus skull was moved and placed in a facing position close to the hole with a folded mat in front of it. Participants then brought in two small buckets of water and placed in front of the hole close to the walrus skull in apparent representation of refreshing the animal.

¹²⁴ King Island dance groups continue to practice walrus dances with a recent performance at the Kawerak Elders' Conference in Nome during April 2012.

¹²⁵ Letter to Charles Bunnell, August 6, 1929. Otto Geist participated in one of these ceremonies taking along a pair of baby walrus flippers and a long leaf of tobacco and making a short film of the ceremony. In his letter, Jimmie explains he hasn't participated in this old form of worship for five years so he asked his oldest brother and the oldest man among his neighbors to let Otto Geist go with them to the sacrificing place. Jimmie states Geist was the first white man allowed to see this ceremony.

¹²⁶ SIA, *Nelson Journals*, December 15, 1878.

Representations of walrus by ancient ivory carvers indicate a special relationship with the animals they heavily depended on for survival. An ivory carving from the Old Bering Sea Period on St. Lawrence Island characterizes a young adult walrus with short tusks and a body engraved with OBS design elements including nucleated circles and radiating lines (Fig. 101).¹²⁷



Fig 96. *Walrus Shaman Drummer* by Levi Tepton. Ivory, baleen, whalebone and an old sealing harpoon head. L 19, W 8.9, D 5.1 cm. Courtesy of the Alaska Native Arts Gallery.



Fig 97. Walrus-transformation figures engraved on ivory drill bow NMNH E33187.



Fig. 98. Three dancers wearing walrus masks and gutskin parkas probably in Nome. Photograph by Wien Alaska Airlines, c. 1959. Anchorage Museum at Rasmuson Center, AMRC-b85-27-2380.



Fig. 99. Interior of a qagri with a walrus skull hanging from the upper entrance engraved on ivory drill bow NMNH E44467.

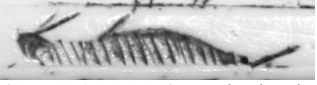

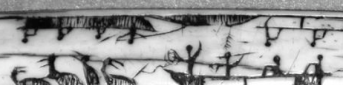


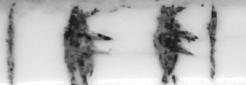



¹²⁷ The walrus carving appears a transitional piece with simplified OBS design elements and an elliptical base of similar form to carved ivory geese from the Punuk-Thule period.



Fig. 100. Carved ivory walrus from St. Lawrence Island. OBS. Collected by Francis Fay. Courtesy University of Alaska Museum of the North, UAMN UA2001-064-0184.

Drill bow carvers of the nineteenth century also drew inspiration from the walrus they studied, hunted, and transformed into a myriad of useful goods. Images of engraved walrus appear on 173 drill bows within the study group. Drill bow scenes illustrate walrus: lying on their backs sunning on the ice, swimming and fighting in the water, being hunted in the water and on the beach, attacking hunters, with a calf riding on the back of its mother, as stretched out skins, as a walrus-transformation figure, aggregated on ice and hanging in a qagri (Table 2).

Table 2. Representations of walrus on engraved ivory drill bows.

 (Am1949.22.23) on the back	 (E44367) in the water	 (NA9387) being hunted
 (IV-E-58) on the beach	 (E43931) with calf	 (SJ-II-Y-58) tally
 (94-57-10/R106) transformation	 (2-38438) on ice	 (E44467) in qagri

Hunting Walrus

Not only did a successful walrus hunt provide a carver with needed ivory to create a drill bow, the hunting experience also provided inspiration for his engraved imagery.

Scenes of hunting walrus appear on 107 drill bows in the study group and depict a range of methods employed to secure walrus. Drill bow carvers conferred particular attention to the requisite implements for walrus hunting and engraved umiaq and kayak hunters using harpoons, retrieving lines, sealskin floats, and harpoon rests.

Before the integration of guns into communities, intrepid hunters relied on ivory tipped harpoons to secure the cumbersome mammals. Paul Silook describes a story in which the people of St. Lawrence Island received the gift of walrus and the creation of harpoon heads large enough to hold them.

Once there was an old woman and her niece who lived in a small ningloo. At that time they do not know anything about walrus. So this old woman wish to have some kind of sea animal beside seals. So one night she sing a regular worshipping song. She [sang] the song over and over again which finally at last her niece [heard] the grunt of walruses which can be heard on the north side of Gambell. She sing until the walruses came on land and cross the Gambell point from north to west at the back of the village. Then she bade her niece to go around and tell all their [people] to make the right size of harpoon head for walrus, so the neighbors made harpoon heads as large as we are using now. So after that they do not make small harpoon heads ever since. (Silook 1928)

Explorers during the eighteenth through the mid-nineteenth century remarked on the great quantities of walrus to be found in the Bering Strait. William Hulme Hooper (1853: 207) remarked that during the summer of 1849 “multitudes of whales, seals, walrus and wild-fowl” appeared on the ship’s journey as it traveled to Chamisso Island in Kotzebue Sound. Hooper also remarks on the presence of American whalers, an increasing threat to the walrus population in the nineteenth century that led Sheldon Jackson to decry the decimated population by the end of nineteenth century. Jackson

(1893:1291) states that the walrus, “once swarmed in great numbers in those northern seas. But commerce wanted more ivory, and the whalers turned their attention to the walrus, destroying thousands annually for the sake of their tusks.” Just as whalers pursued bowhead for their baleen so the ships turned their attention to walrus for ivory. Jackson’s belief in the disappearance of walrus as a food source strengthened his resolve to bring reindeer from Siberia as a subsistence alternative. While in Point Hope during the 1950s, VanStone (1962:59-60) noted the poor prospects of securing walrus from the area stating it had been over twenty-five years since walrus hauled up on the beach in large numbers during the summer.¹²⁸ Bering Sea island villages such as King Island took advantage of their position in the center of the annual spring and fall walrus migrations providing bi-annual opportunities for securing walrus.

Weather Conditions and Danger

Walrus hunters must negotiate with precarious weather conditions that can place their lives in peril. Vince Pikonganna (April 2012:10) describes the role weather played while hunting on King Island, “We used to watch men, on King Island go down, go out to the ice, go hunting. Five, ten miles, fifteen miles out, depending on the weather of course. Weather played a big part in everybody’s life, when you live in the village. Weather was the boss. And they have to have someone in the village that knows about the weather. A lot of people seek his advice. Of course, you learn a thing or two over the years from hunting.” (Fig. 101). Hunting walrus on varied ice formations presents its own unique challenges. Gary Sockpick (June 2012:16) describes a time when he and a group of men

¹²⁸ During June 1956, several herds of walrus passed by Point Hope at which time local hunters set up camp on the floating sea ice and secured many of the walrus (VanStone 1962:60).

were out walrus hunting and they came upon a small herd of walrus on an ice cake raised high in the air. As the walrus jumped off the ice, the men shot a few but could only take their heads, as the ice was too high and perilous to haul the animals on top of. One drill bow illustrates a similar tower-like ice formation in which kayak hunters approach a herd of walrus swimming and resting on an ice floe with a cow and calf high on an ice shaft (Fig. 102). Shifting ice poses additional danger as described in 1952 by Juan Munoz who recounts Paul Tiulana and Oolarana of King Island hunting walrus on foot over ice that moved miles out leading to Oolarana freezing his eyes and Tiulana tying a rope around Oolarana's waist to lead him home the last few miles (Muñoz 2007:103).



Fig. 101. Vince Pikonganna sharing knowledge about studying weather conditions and hunting walrus. Nome, AK. 2012.



Fig. 102. Bering Strait kayakers hunting walrus on a raised ice floe. Ivory drill bow HM 1976.68.

A group of walrus resting on pack ice may appear nonchalant at the presence of approaching hunters but upon being fired into, can turn frantic in their attempt to move off the ice and escape into the water. Wounded walrus may turn and fight or remain behind in an attempt to assist their hurt comrades. During the summer of 1826, crewmembers from the HMS *Blossom* encountered a group of men in Kotzebue Sound who presented deep scars inflicted by enraged walrus with one man severely crippled

from a hunting accident (Beechey 1831:402). Beechey also acquired an ivory implement engraved with walrus attacking kayakers leading him to consider walrus hunting more perilous than pursuing whales (Beechey 1831:307). Nineteenth century whalers also recounted tales of infuriated walrus attacking the sides of their small hunting boats (Murdoch 1885:98).¹²⁹ Aspiring hunters learned from an early age the inherent dangers of pursuing walrus. In 1937, Harold Kaveolook, a young boy from Barrow, described walrus hunting in July, “When you get into a big herd like a hundred or two hundred on a big cake of ice it's a thrilling time... Sometimes the men would get up on the ice and shoot. From a herd like this they can get anywhere from ten to twenty walrus. Sometimes they don't dare to shoot when there are too many because they are dangerous when they are many. They can punch holes in boats with their tusks.”¹³⁰ The ferocity of walrus appears on a drill bow collected by Edward Nelson depicting a group of enraged walrus attacking an umiaq while figures with raised harpoons attempt to kill and fend off the animals (Fig. 103).



Fig. 103. Walrus attacking hunters in an umiaq. Ivory drill bow NMNH E43360.

Subsistence communities also carry didactic tales of hunting walrus in the Bering Sea. Edward Curtis (1930:101) remarked on the King Island practice to hunt in slightly

¹²⁹ Murdoch (1885:98) states that although Capt. E. P. Herendeen killed a large number of passive walrus hauled out on land, Capt. L. C. Owen, commander of the first Arctic steam whaler, reported frequent attacks by wounded walrus “pecking” their tusks at the sides of his dinghy.

¹³⁰ Kaveolook notes that following a successful walrus hunt, the meat supplies dog food for the winter while tusks are sold to local stores. From a manuscript compiled by the teacher Paul E. Thompson with descriptions of 58 Alaska Native villages written by students attending the Eklutna Vocational School during 1937. Alaska State Library, Historical Collections, ASL-MS4-08-004.

choppy water as during calm weather, “the spirits of the drowned will upset the boats of their relatives and drown the occupants.” Ferocious beasts could also be found in the vicinity of walrus herds. In 1880, Edward Nelson recorded a legend in which Raven sits upon the head of a large “walrus dog” and warns man that the creature accompanies walrus herds attacking and killing hunters.¹³¹ Nelson (1983:442-43) describes the walrus dog as a “long, slender animal, covered with black scales which are tough but may be pierced by a good spear. It has a head, teeth somewhat like those of a dog, and four legs; its tail is long, rounded and scaly, and a stroke from it will kill a man.”

A number of engraved drill bows depict a walrus dog-like creature including a drill bow collected by Beechey illustrating a hunter spearing a beast with pointed ears and open mouth attacking a coastal village (Fig. 104). Behind this pair, an umiaq approaches another creature with a long, spiked tail following a hunter pulling a seal. Hunters from Barrow also describe the revengeful “amixsak,” a creature transformed from the skin of a killed walrus left carelessly on the ice, able to envelop an umiaq with its flippers and drown the occupants (Spencer 1969:262). Bering Sea hunters encountered a myriad of dangers including inclement weather, wounded walrus and tales of dangerous beasts adding to the respect bestowed upon a veteran hunter and intrinsic value to the ivory used to create a drill bow.



Fig. 104. A “walrus dog” attacking figures on ivory drill bow PR 1886.1.693.

¹³¹ An excerpt from “Legend of the Creation by *Tu lu káu guk* (the Raven)” told by a “Kegiktoiwik Inuit” from southern Norton Sound and recorded by Nelson in his diary on December 25, 1880. Nelson notes only hunters north of Cape Prince of Wales have seen the walrus dog. SIA, *Nelson Journals*.

Umiat Hunting 19th -21st century

Evidence of ancient villagers hunting walrus appears in several of the oldest archaeological sites in Northwest Alaska. At Ipiutak, a sea-land hunting culture east of Point Hope, numerous weapons reveal extensive participation in sea mammal hunting (Larsen and Rainey 1948). The primary method of acquiring walrus through the use of a harpoon, retrieving line and sealskin floats continued throughout the nineteenth century. Most ethnographic accounts of hunting walrus during the nineteenth century describe the pursuit of walrus in an umiaq or skin boat by a group of seven or eight men (Murdorck 1892). For instance, at Little Diomede, Curtis (1930:113) describes seven to eight men comprised a walrus hunting crew with the boat owner and harpooner as permanent crewmembers accompanied by a variable group of additional members based on availability and fitness.

Umiat frames are composed of bent and steamed wood upon which sewn walrus hides are stretched over the bottom, sides and upper edge of the boat. As noted by Gordon, the skins tear easily when dry but are resilient and flexible when wet. Skins are removed at the end of each hunting season to be mended and replaced while the umiat frames are set up on racks. On drill bows, umiat often appear to have black and white patches on the sides (Fig. 105). Joe Kunnuk (April 2012) of Nome describes light and dark patches on umiat as old and new skins, the white being old skins bleached from the sun.¹³² Kunnuk also shared a story of his grandfather using white paint one summer to cover and seal new walrus skins on his umiaq. Standing in the bow of an umiaq, the

¹³² Dorothy Jean Ray (1969) suggests carvers engraved the boats with dark and light squares to show length.

harpooner used a bone or ivory finger rest on his wooden harpoon to take aim at nearby walrus in hopes that the ivory harpoon head would hit its mark (Nelson 1983:137) (Fig. 106). Hunters typically attached lines made of bearded sealskin to the base of the harpoon shaft to create drag when thrown. Nelson (1983:140) describes sealskin floats made from an entire tanned seal with the hair removed and plugs of ivory, wood and bone. Henry Koonook (April 2010) still uses a sealskin float when hunting and provided an illustration on how the float is plugged and attached to the harpoon line. Murdoch (1988:223-4) provides insight into harpooning a walrus, “When a walrus is struck the head slips off and toggles as already described; the line detaches itself from the catch, leaving the shaft free to float and be picked up. The float is now fastened to the walrus, and like the shaft of the seal of the dart, both shows his whereabouts and acts as a drag on his movements until he is “played” enough for the hunters to come up and dispatch him.”

As described earlier, a harpooned or speared walrus presented a serious threat to umiaq hunters as described by Van Valin (1941) who states, “It is a very dangerous thing to hold a harpooned walrus from an oomiak for the infuriated beast is likely to charge the boat, hook his tusks over the side, and break it in half with a tremendous downward pull.” Once killed, walrus could be cut up on the ice, packed into the boat, or dragged home and butchered on the beach. Drill bow NMNH E43360 illustrates two groups of hunters dragging large walrus killed on the ice with the use of lines and ice picks (Fig. 107).

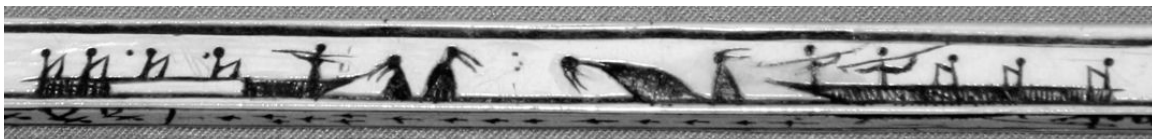


Fig. 105. Hunting walrus in umiat covered in old and new walrus skins.
Ivory drill bow PR 1886.1.692.



Fig. 106. Hunting walrus in an umiaq. Drawn by an Alaska Native artist, c. 1890. National Anthropological Archives, Smithsonian Institution, NAA INV 08712700.



Fig. 107. Hunters dragging walrus killed on the ice. Ivory drill bow NMNH E43360.

Francis Alvanna (April 2012) recalls his brother-in-law teaching him how to hunt walrus in an umiaq with a gun in the moving ice when he was about sixteen years old. Alvanna fondly recalls family members making sealskin pants and mukluks for him to wear out hunting like the older hunters. Joe Kunnuk (April 2012) learned to hunt walrus by accompanying his grandfather on hunting trips when he was about eleven years old. Similarly, Vince Pikoganna (April 2012:3) recalls being about eight years old and helping with the strenuous task of transporting walrus meat up King Island's steep cliffs explaining, "after the hunting then comes the work, everything has to be put away, everybody worked. I had a little packsack that I would take with me...my sister would carry walrus flipper and I would carry something light, it got heavier the closer I got to home."

By the mid-nineteenth century, hunters experienced greater access to firearms which were readily adapted to the hunt and used in conjunction with harpoons and lances. The Eskimo Bulletin reported that on Nov 1, 1902 a large herd of walrus with many bulls hauled out near the village on Little Diomed and “After they had climbed up the steep hill-sides, the people got between them and the sea and began a battle which lasted two day.” (Lopp 2001:346). The report notes lances were used rather than guns in fear of a stampede but this event may be that represented in a photograph taken at Little Diomed around the same time which shows a large number of walrus heads lined up on the beach (Fig. 108).

With increased use of firearms, walrus hunting altered dramatically as more walrus could be taken at the same time by a group of hunters rather than being limited to a single harpooner. Contemporary hunting of walrus involves the use of harpoon guns, shotguns and GPS units. During a spring visit in Nome, Joe Kunnuk and his brother-in-law studied GPS prints out of ice conditions between Nome, Sledge Island and King Island to determine leads in the water, a navigational route and when would be an opportune time to go hunting. Kunnuk (April 2012:2) explains, “You don’t need to climb up the mountain, we have to go through the computer, see where the ice is, it really helps.” In a story shared by Gary Sockpick (June 2012), technological assistance can come from many directions. One time Sockpick and a hunting party were stranded out hunting and an airplane brought them provisions sharing news on the location of walrus and on the way back the hunting party shot many large walrus.



Fig. 108. Little Diomedé hunters with walrus heads ready to be divided. Note the mixed use of rifles and harpoons. Photograph by Tom or Ellen Lopp, 1892-1902 (from Lopp 2001:308).

King Island elder Sylvester Ayek continues to hunt walrus and during the spring of 2013 stayed with relatives in Little Diomedé to be closer to the migrating herds. Ayek (April 2012) views hunting as an opportune time for young crewmembers to learn the Uvangimiut, King Island, dialect and uses hunting excursions as language lessons among older and younger members. Thomas Barr (April 2012) describes challenges with working and supporting his family in Nome while still finding time to return to Shishmaref to hunt walrus where the presence of the animals are highly variable. Wilfred Anowlic (April 2012) or Nome notes King Island elders in the past experienced a more difficult time hunting walrus with harpoons as contemporary hunters benefit from rifles and the ability to bring more meat home. After eight years, Anowlic (June 2013) enjoyed a successful walrus hunt during the spring of 2013 from which he and his crew brought home a load of walrus meat including intestines, kidneys, livers, flippers and blubber to render into oil. Anowlic contributes his recent success to large quantities of spring pack ice and hoped for eastern winds to return the ice one more time to be able to hunt bull walrus.

Kayak Hunting

John Murdoch (1988) states that Barrow residents in the 1880s showed little evidence of hunting walrus by kayak unlike eastern Inuit communities. However, drill bows depict scenes of hunting walrus in single man kayaks almost as frequently as hunting walrus with groups of men in umiat suggesting widespread use of the former hunting method throughout the Bering Strait. Unlike the household ownership of an umiaq or sled, northern communities considered kayaks individual property and even family members needed to receive an owner's permission before use (Spencer 1969:148). A successful hunter learned to navigate his kayak with speed and precision in the pursuit of various game including walrus, seals, geese, caribou and even small whales. In 1816, Adelbert Chamisso observed villagers near Sarichef Island, the location of present day Shishmaref, using a kayak and noted the vessel consisted of, "a long narrow tube of sealskin stretched onto a light wooden frame. In the center there is a round opening, and the man sits in it with his feet extended and his torso emerging out of the top. He is connected to the vessel with a tube of kamleika material the same width as the opening that encircles it and that he makes fast to his own body by tying it under his arms. His light paddle in his hand, his weapons in front of him, keeping his balance like a rider, he shoots like an arrow across the billowing surface of the sea." (Chamisso 1986:84).

Kayak hunters pursuing walrus needed to take extra precaution as an enraged adult could easily pierce the hide covering or upset the vessel. Late nineteenth century hunters wore white parkas and are said to have covered the bows of their kayaks with white cloth to disguise their appearance as they paddled through icy waters (Bruce

1895:45).¹³³ Walrus hunters in kayaks and umiat often worked together as depicted in an illustration by Henry Elliott of Bering Sea hunters pursuing an adult walrus in open water during the summer (Fig. 109). During the 1870s, Elliott (1886:460) observed St. Lawrence Island hunters harpooning walrus which then tow hunters for several miles before, “their bidarrah is quietly drawn up to its puffing form close enough to permit a *coup* by an ivory-headed lance; it is then towed to a beach at high water.” Drill bow 1973.017.001 depicts two kayak hunters, one paddling and the other with a raised harpoon, ready to strike walrus swimming in the water (Fig. 110). On the right, a hunter in an umiaq holds up harpoon line for three hunters preparing to pull a struck walrus up on the ice.



Fig. 109. “The Death-stroke. Mahlemoöts Morse-hunting in the summer.” Bering Strait hunters in a kayak and umiaq pursue walrus with harpoons (from Elliott 1886:459).



Fig. 110. Hunting walrus with a kayak and umiaq. Ivory drill bow AMRC 1973.017.001.

¹³³ The “white cloth” Bruce mentions might refer to a new piece of walrus hide not yet darkened with age. Bruce notes the white covering was used when hunting bearded seal but it could have been as aptly applied when hunting walrus.

Beach Hunting

Walrus haul out on the ice or the beach as individual animals or in groups reaching into the hundreds. Once out of the water, walrus often go to sleep or socially interact with each other. Approaching a large group of beached walrus tends to be easier than pursuing a small group as alertness declines with an increase in numbers (Burch 2006:167). Siberian Eskimos are known to have formerly used a method of walrus hunting called the “drive” in which hunters in umiat encircled a walrus herd swimming close to the shore and shook a whalebone flapper to imitate the sound of a killer whale. Frightened by the noise, the walrus beached themselves on land where hunters killed them with lances and harpoons (Hughes 1985b:250). Contemporary hunters in Point Hope take an occasional walrus offshore but during the early twentieth century walrus are said to have hauled up on nearby beaches where hunters killed them in large numbers during the spring and late summer (VanStone 1962:59; Burch 2006:167). Although over a hundred engraved drill bows depict scenes of walrus hunting, only a few drill bows appear to illustrate hunting walrus on the beach.¹³⁴ Drill bow E24545 depicts a summer camp scene with two walrus on the beach being killed by pairs of hunters with harpoons and spears (Fig. 111). Using retrieving line, the hunters strain against the weight of the walrus in close watch of an excited dog. Former beach sites of walrus haul outs, such as those on Penuk Island, continue to be visited by locals and carvers in search of ivory and bone.

¹³⁴ Drill bow scenes of hunting walrus on the beach and on the ice often look similar. The close proximity of dogs, dwellings, or other village motifs typically implies hunting on land. The scarcity of drill bow scenes with beach hunting suggest this was a secondary technique, and perhaps less exciting to illustrate, or a method not commonly practiced by the late nineteenth century due to a decrease in walrus herds by whalers.



Figure 111. Hunters killing walrus on the beach next to a summer camp scene.
Ivory drill bow NMNH E24545.

Division of Meat and Ivory

Following a successful hunt, crews paid special attention to handling and dividing the walrus meat. Edward Nelson's field journal describes a ceremony for a first walrus hunt held by Chukchi villagers at Tapkan along the Siberian coast during the summer of 1880.¹³⁵

The ceremony took place the first of June. Several boats (*bidarras*) went out among the floating ice when the hoarse notes of the bulls were first heard. All the men taking part. They were gone until midnight and returned successful. The flesh of the Walrus was divided pro rata among all the hunters and this equally throughout the village, except that the owner of the boat killing the animal was entitled to the head and skin. After the division all gathered in the chief's hut and the Walrus head was placed in the centre and the chief's youngest son took three pieces each of reindeer fat and seal meat and placed them in the walrus' mouth. Three other pieces were then taken and cast in different directions. This was followed by a speech from the chief who then took five pieces each of the fat and meat and going, attended by the people to the meat cache outside, cast four of the pieces to the four points of the compass and the fifth piece was cast down into the centre of the cache through the "skylight." Everyone was then given a piece of fat and of meat to eat on the spot, including the *Corwin* people and the ceremony was at an end.

Several accounts have paid particular attention to the division of whale among a hunting crew (i.e. Murdoch 1988, VanStone 1962). However, writers have not recorded many details on the process of dividing up a walrus, including its highly prized tusks.

Vince Pikonganna (April 2012:11) shares that when a hunting crew acquired a walrus,

¹³⁵ Nelson entered this account into his journal during the summer of 1881. The events described were related to Nelson by Lt. Reynolds of the *Corwin* who, along with other members of the ship, observed the ceremony at Tapkan village during the summer of 1881 while on a cruise of the coastline.

“However many walrus you get, the captain and the motor [owner of the boat] gets a share. Because the motor is the one that’s doing the work, for us to travel. The motor gets it, the captain gets it, and the rest of it gets a share too. Everybody gets an equal share. Just because I’m the captain, I don’t get any more than somebody else’s share.” Curtis (1930:101) states that in dividing a walrus, the boat-owner received the flippers and half of the meat and blubber while the harpooner received the valuable ivory and the other crewmembers split the remaining walrus meat and hide. A photograph taken in the 1930s by missionary Bernard Hubbard illustrates a group of men dividing shares of walrus tusks on top of the Qaluilat qagri roof on King Island (Fig. 112).

During his fieldwork in Wainwright during 1955, Frederick Milan participated in summer walrus hunts and affirms the division of walrus parts changed following the introduction of modern hunting implements and practices. Milan (1964:37) explains that if an umialik contributes his outboard motor to the boat, he receives both walrus tusks, the penis bone and a double share of meat, one for himself and another for the boat. On the other hand, if the umiaq does not have a motor attached, the walrus tusks are sold and the profits divided equally among the hunting crew. Contemporary hunters work carefully to skin and divide the meat and use it as a teaching experience for younger carvers as noted by Joe Kunnuk (April 2012:14), “You teach them out there, while we’re hunting walrus, how to cut the heads off, cut the meat and everything. It’s not easy work, to teach someone out there. But we got sharp knives.”¹³⁶

¹³⁶ Kunnuk (April 2012) also recalls young hunters in the past rushing to cut up walrus in order to claim prized portions such as the oosik and putting extra knives next to claim additional portions. Similarly, Otto Geist recounts a hunting incident off Gambell in which the hunter Lawrence grew frustrated at Paul Silook for hastily helping skin a female walrus Lawrence had killed and whose hide he wanted to use for part of a new umiaq cover. Geist (1932:61) writes, “So it goes. One boat makes a kill and calls a



Fig. 112. John Charles Olaranna (standing) dividing his crew's ivory harvest on top of the Qaluilat qagri roof on King Island. From left: unidentified boy, Peter Nuyaaq, unidentified boy, Thomas Saŋmigana, Aisana, Charles Penatac, Romeo Ataŋana, John Aulaŋana, Gregory Ayyaaq, Paul Anaulik. Photograph by Father Bernard R. Hubbard, S.J., June 1938 (from Kaplan 1988:34).

Ivory Tusks

Power of Walrus Tusks

As described earlier, walrus and certain parts such as flippers and skulls held special significance and were treated with respect. Similarly, Bering Sea villages regarded ivory tusks as holding a particular power. Vilhjalmur Stefansson describes a story related by "T." about a native of Cape Smythe or Point Barrow named Alúáluk whom T. observed:

strip to the waist, seat himself on the bare floor in the centre of the house, and have two walrus tusks almost as long as his arm (but slender – about the size of a man's thumb in diameter) grow gradually out of his mouth. The tusks had been inside his chest, reaching down to the stomach and he groaned with pain as he forced them up through this neck and out of his mouth. Soon after they had attained full length they disappeared back into his mouth gradually, but after several people had felt of them. They were hard and smooth like ivory. This performance was in the evening but the house was well lighted. T. firmly believes

boat nearby, gives to that boat a share of the kill, often as much as nearly an entire carcass. Then some fool from another boat, eager to get something for nothing, spoils things by cutting wildly, making a mess out of everything he touches."

this was genuine – i.e. no slight of hand or make-believe. (Stefansson, AMNH, Anthropology Archives, Box 2, Folder 9)

While in Point Barrow between 1881-83, Patrick Henry Ray acquired a wooden walrus-man figure dressed in a gutskin parka trimmed in white polar bear hair with inset ivory eyes and two tusks (Fig. 113).¹³⁷ A length of braided sinew extends from a hole through the body suggesting the figure was meant to hang.



Fig. 113. Carved walrus-man. Wood, gutskin, sinew, hair, ivory.
H 46, W 25 cm. NMNH E89827.

Characteristics and Carving Preferences of Walrus Ivory

One of the primary benefits from hunting walrus continues to be the acquisition of ivory tusks. Walrus ivory features inherent qualities of strength, endurance, and smoothness with the ability to be carved into multiples shapes and forms. Walter Hoffman (1897:773) expresses the longevity of drill bows made from ivory affirming the implements as “durable and sufficiently hard to retain indefinitely, with proper care, the

¹³⁷ The walrus-man’s current tusks are museum replacements.

most delicate etchings.” Ivory carvers usually express preference for female tusks as they include fewer scratches and cracks than tusks from males who engage in combat. Ivory carver and etcher Simon Koonook (1988:71) from Point Hope explains, “walrus ivory is not a pure substance. Many pieces have weather checks. These are black lines in the ivory. Female tusks have fewer checks than those of males. A good carver will use checks to make his work better.” Likewise, ivory carvers Harry Koozaata and Susie Silook remark female tusks crack less often when split and the slenderness of female tusks forms a major element of Silook’s streamlined sculptures (Koozaata 1982; Silook 2009:294).

Walrus ivory can be classified into three groups (green, new and old) based on age and dryness that often determines when and how a carver uses the material. (Foote 1992:174). Green or fresh ivory derives from recently hunted walrus, appears white, is undried and carries the potential to develop cracks if split. New ivory also appears white but has seasoned or dried out enough to be easily split and carved. Old ivory buried in mud or sand appears in hues of red, yellow, violet-brown and almost black. Carvers prize old ivory and incorporate small pieces into sculptures or masks or create high-contrast bracelet links. James Omiak (April 2012) explains old ivory has a nice brown color when it comes from the ground while old ivory discovered in the water takes on a black hue.¹³⁸ Carved white ivory can also develop a patina over time as seen in a bracelet Omiak carved for his daughter Susan over twenty years ago now in the process of turning a golden brown hue (Fig. 114). Nineteenth century drill bow carvers convey a preference

¹³⁸ Although James Omiak (April 2012) no longer carves, he purchased ivory of a black hue from a lady from St. Lawrence Island and had Joe Kunnuk turn it into a bracelet for his daughter Susan.

for new walrus ivory with only three ivory drill bows in the study group displaying a darker hue typically associated with old or mineralized ivory.



Fig. 114. James Omiak with his carved ivory animal links restrung onto a necklace and an ivory bracelet made for his daughter. Nome, AK. 2012.

Mammoth Tusks and Myths

Bering Strait communities of the nineteenth century carried in-depth localized knowledge about the location and appearance of mammoth remains. Edward Nelson describes a perception of mammoths as mythological underground beasts when Nelson asked his trading Alexis, a villager from Kegikhtowruk, about mammoth remains, “He said the natives did not have any stories of ever seeing them alive but that they thought they live at present in a large hole under the ground and that now and then, one strays away and comes up to the surface and after sniffing the air, he dies and in consequence, his bones are found about small lakes or in depressions in the ground.”¹³⁹

Nelson received a similar mammoth report from a Kotzebue Native camped at the mouth of the Kugururok River who provided Nelson with detailed river locations for mammoth

¹³⁹ SIA, *Nelson Journals*, September 25, 1877.

bones and tusks belonging to a soil-breathing creature called *Kiligiwuk* that, “furrows out river beds by burrowing along near the surface and creating a deep furrow into which the water runs from lakes and makes a river.”¹⁴⁰

Along the Kuskokwim River, George Byron Gordon (1917:232) recounts a tale in which the mammoth known as *Keelugbuk* once swam in the sea before being forced ashore by the whale’s partner named *Aglu*, a monster with long teeth and horizontal jaws. Once on land, the mammoth attempted to swim as before but was too heavy and sank in the mud to his demise where his bones and tusks can now be found. Perhaps one of the first scientific images of a mammoth to reach Alaska Natives came in 1885 when the Revenue Cutter *Corwin* anchored off Cape Prince of Wales and several Natives came on board with mammoth tusks and bones to trade. Charles Townsend recounts taking out a copy of LeConte’s *Geology* and showing the Native traders an image of a mammoth upon which one man borrowed pencil and paper to copy the outlines of the illustration (Townsend 1887:89).¹⁴¹ Ivory carvers gradually incorporated published images of mammoths into their canon of engraved imagery as seen on an engraved tusk from Point Barrow probably carved in the early twentieth century (Fig. 115).

Despite seemingly widespread access to mammoth ivory, Bering Strait carvers did not utilize this material for drill bows.¹⁴² Instead, mammoth ivory appears fashioned

¹⁴⁰ SIA, *Nelson Journals*, September 10, 1881.

¹⁴¹ Townsend probably showed the Native traders at Wales, John L. LeConte’s *Elements of geology: A text-book for colleges and for the general reader*, (New York: D. Appleton and Company, 1877). An illustration of a mammoth skeleton with gigantic tusks appears on p. 580, Fig. 948 “Skeleton of the Mammoth (*Elephas primigenius*).”

¹⁴² None of the 376 drill bows examined in collections or in publications are of mammoth ivory. Gilford Mongoyak (May 2012:13) explains carving mammoth ivory presents particular challenges as he carved several bracelet links out of mammoth ivory described as “really smooth like the table” but soon after

into household implements such as cups, ladles and platters (Townsend 1887:89; Peard 1973:172; Maguire 1988:314-15).¹⁴³ The absence of mammoth ivory drill bows perhaps stems from stories surrounding the dangerous creatures and the possibility of bringing harm to hunters who utilized this material for tools or hunting gear. Likewise, as mammoth ivory was found and not hunted, it might have been consigned to the creation of household items or articles for women. Finally, walrus tusks comprise an ideal length and curve for drill bows while dense mammoth tusks offer a better option for wide or deeply carved objects. Drill bow engravers would have certainly noted that dark motifs show up best against the light, creamy surface of walrus ivory.



Fig. 115. Woolly mammoth engraved on an ivory tusk. Collected by Samuel Prescott Fay in Point Barrow and purchased by the George Heye Foundation in 1952. NMAI 218985.

Ivory Caches of Eastern Siberia and St. Lawrence Island

While hunting walrus might be the most straightforward method to attain ivory, carvers and collectors pursued and continue to search for old ivory by digging along

finishing the bracelet, the links started to warp and develop cracks as the ivory dried out so he put aside working with mammoth ivory for a while.

¹⁴³ Implements from mammoth ivory also constituted trade items as described by an account from the Arctic explorer Thomas Simpson (1843:146-148) at Dease's Inlet, "I exchanged the tin pan, which constituted my whole table service, for a platter made out of a mammoth tusk! This relic of an antideluvian world contained by two daily messes of pemmican throughout the remainder of the journey. It is seven inches long, four wide, and two deep; and is exactly similar to one figured by Captain Beechey at Escholtz Bay [sic], only the handle is broken off." In 1853, Rochfort Maguire read this passage to an umialik's wife at Point Barrow who recalled meeting Simpson during 1837-38 (Maguire 1988:314-315).

shorelines, searching cliffs and combing beaches. Indigenous carvers and traders have searched for buried ivory along the shores of East Siberia for generations. During his 1879 voyage on the *Vega*, Nordenskiöld (1879:367) remarked that dog teams used to travel across the ice to the New Siberian Islands to collect great quantities of mammoth ivory, “Some of the sand-banks on their shores are so full of the bones and tusks of the mammoth that the ivory collectors who for a series of years travelled nearly every year from the mainland to the islands in dog-sledges, used to return in autumn, when the sea was again covered with ice, with a rich harvest.”¹⁴⁴ Directly across from East Cape, Chukotka, James Omiak (April 2012) recalls winter journeys by his father Bob Omiak when he would carry an empty sack from Little Diomedes across to the Siberian shore and return with a bag full of old ivory.¹⁴⁵

The Penuk Islands, located southeast of St. Lawrence Island, contain one of the largest ancient haul-out sites for walrus and continue to be scoured for old ivory as well as manufactured implements from the ancient Penuk site. While excavating at the Kukulik site during the summer of 1931, Otto Geist suggested local ivory diggers search along the northwest shore and soon after Geist joined a group led by the hunter Ataaka who headed to the Penuk Islands:

One Eskimo, Ataaka by name, very soon made a trip to Penuk with his crew, and while excavating toward the northwest shore, discovered an enormous deposit of

¹⁴⁴ Nordenskiöld is probably referring to travel by Yakuts or Yukaghir dog teams that could travel across the frozen sea from the East Siberian coast to the New Siberian Islands, an archipelago belonging to the Sakha Republic of Russia. The island group commonly refers to the Anzhu Islands, the Lyakhovsky Islands, and the De Long Islands in the Arctic Ocean, which are acclaimed for the bones of megafauna and mammoth ivory excellently preserved within the permafrost.

¹⁴⁵ Before the Cold War, Native travelers and family members frequently crossed between Cape Dezhnev, also known as East Cape, on the Chukchi peninsula, and the Diomedes Islands with Big Diomedes only 45 km (28 miles) from the Siberian shoreline.

walrus tusks. Not only did he fill his whaleboat with tusks but buried hundreds of pounds in various caches about the coast. He then returned to Savoonga and told of his discovery and many more hunters immediately traveled to Punuk. Along with the ivory, Ataaka brought back many fine specimens which were very similar to those I had found along the beach. These specimens I purchased. I then made another trip to Punuk, hoping to learn something of the stratigraphy of the deposits. I immediately found it impossible to regulate the digging of the ivory hunters, all of whom were digging at random, each one eager to collect tusks. In this manner some four tons of raw tusks were secured by these people from this one location, together with a fine collection of artifacts. (Geist, undated Report of the Punuk Island Group, Series 5, Box 5, Folder 140, UAF)

Six years following the massive haul of walrus tusks by villagers from Savoonga, it seems the supply was almost depleted. Froelich Rainey describes a group of walrus hunters bringing back a large collection of ivory artifacts from the Old Punuk site but that raw ivory was in great demand so he decided to “take several barrels of rough ivory here and turn it over to the ivory carvers here who are much in need of ivory.”¹⁴⁶ (Rainey, letter to Dr. Clark Wissler, July 29, 1937 AMNH).

Contemporary residents of Gambell and Savoonga go to great lengths to secure any remaining ivory from Punuk Island including diving to the sea floor to retrieve almost pure black tusks (Fig. 116). In Nome, Francis Alvanna (April 2012) shared that one of his friends from St. Lawrence Island dives for the blue-black tusks, prized by carvers for high prices they command when turned into jewelry items.

¹⁴⁶ Froelich Rainey writes this letter while working at the Kukulik site on St. Lawrence Island. Rainey criticizes Otto Geist’s previous practices of taking unworked ivory back to the University of Alaska rather than giving it to local carvers, “It [the ivory] is no use to us, naturally, and it seems foolish to lug it back and throw it away in Fairbanks as Geist has been doing.” (Ibid.)



Fig. 116. Black tusks recovered from the Bering Sea by divers from St. Lawrence Island. 2012.

Digging in Northwest Alaska

Explorers in the nineteenth century described large deposits of mammoth bones, tusks and teeth exposed among the cliffs of ice-covered Eschsoltz Bay, an eastern arm of Kotzebue Sound, where villagers traveled to collect mammoth ivory (Chamisso 1986:88; Beechey 1831:220; Peard 1973:172; Jackson 1893:1276; Kotzebue 1967:220).¹⁴⁷ Carvers used mammoth ivory for household articles and as a trade commodity with other villages and Western explorers. A photograph taken in Shishmaref during the 1920s shows a group of young boys proudly displaying their uncovered mammoth tusk that might have brought a good price from a visiting collector (Fig. 117). Old village sites also present opportunities for buried or cached ivory. In 1952, Juan Munoz went with Peter Adsuna on an ivory search to a cave on King Island with a reputation for old ivory where they discovered a large, partially decomposed tusk along with small pieces of ivory and whale vertebrae denoting the cave's use as a cache for whale and walrus (Muñoz 2007:111). Likewise, Brian Sockpick (April 2012) heard of a

¹⁴⁷ Elephant Point, a headland projecting northeast into Eschsoltz Bay, is particularly well-known for rich deposits of mammoth remains and received its name in 1826 from Frederick Beechey in who acquired several bones, teeth and tusks there (Beechey 1968:443-45).

man digging in an old sod house at Wales who uncovered a box full of old ivory pieces and tusks.



Fig. 117. Eugene Ningeulook, Tom Seetomona and Charlie Weyiouanna Ipruk pose with a mammoth tusk in front of Jimmy Seetomona's old sod house in Shishmaref. Fish racks in the background indicate it is summer, an ideal time to dig ivory out of the thawed permafrost. Photograph by Edward L. Keithahn, 1923. Alaska State Library, Historical Collections, ASL-P360-0762.

Beach Combing

In addition to digging for ivory, carvers and villagers keep on the lookout for tusks and ivory chunks washed up on the beaches. In the past, older men who no longer actively participated in hunting might keep busy by searching for ivory along the beach, carving, or making nets (Spencer 1969:251). Due to a gradual decrease in walrus hunting among many Bering Sea coastal villages, a wide range of contemporary carvers and community members participate in beach combing. Henry Koonook (April 2010) notes Point Hope residents often find old ivory up the coast at an area called Kotuk along the north shore. In Nome, carver Matthew Tiulana (April 2012) expressed his excitement at finding a whole tusk on the beach while Brian Sockpick (April 2012) also scours Nome's shoreline with good results usually on the far side of Cape Nome. Similar to Nome, most carvers in St. Michael do not participate in walrus hunting so finding beach ivory is

always welcomed. Joe Akaran (April 2012) still appreciates a resident of St. Michael telling him about a walrus head with full tusks washed up next to Akaran's home almost five years ago. Albert Matthias (April 2012) shares when a walrus head washes up at St. Michael most people will just take the large tusks so he will check the skulls and take any small teeth left intact. Beachcombers may use, trade or sell their found ivory. An early account from 1902 describes Toonuk, from the village of Imagnok, who traveled thirty-five miles south to Cape Prince of Wales in hopes to trade ten walrus tusks weighing almost seventy-five pounds which he had accumulated during eight years of beach combing (Lopp 2001:348)¹⁴⁸

Trade Routes

Movements of goods across the Bering Strait have functioned as an important part in resource procurement and exchange for hundreds of years. Historically, hunters from eastern Siberia, Wales, Little Diomed and other coastal villages traveled to trading fairs in Hotham Inlet bringing walrus and reindeer skins, ivory and other sea mammal materials while communities farther inland brought caribou meat, animal furs, antler and bones. Otto von Kotzebue (1967:307) observed a prolific trade of walrus ivory in 1815 affirming, "Countless herds or morse [walrus] are met with in Beering's Straits, and the teeth of these animals seem to form a considerable branch of trade with the natives of St. Lawrence Island." Similarly Sheldon Jackson (1880s:120) describes the large trading fairs that took place in Kotzebue Sound during July when villagers traveled from Siberia, Diomed and Cape Prince of Wales, "The Innuits of the coast bring their oil, walrus-

¹⁴⁸ From an article titled "Hoards Old Walrus Ivory" published in *The Eskimo Bulletin* at Cape Prince of Wales, May 1902.

hides, and sealskins; the Indians from the interior their furs, and from Asia come reindeer skins, fire-arms and whiskey.” Jackson explains villagers from Diomed and Wales engaged in fairly steady trade with Siberians throughout the year in which Alaskans would exchange caribou skins and woodenware for Siberian reindeer skins, ivory and muktuk. An engraved tusk collected by Charles Hall at the turn of the twentieth century depicts an exchange between a Siberian Yupik woman offering a walrus tusk and an Iñupiat man proffering a fox skin in return (Fig. 118).



Fig. 118. A Siberian Yupik woman offers a walrus tusk to an Iñupiat woman in exchange for a fox skin. Engraved on ivory tusk PHMA 2-197.

Ross Schaeffer Sr. (April 2012:3) explains Kotzebue’s location in a large bay made it an ideal trading location for almost a thousand years, “we’ve got a sand bar that protects small boats. And so, we have thousands of salmon going by, in the early spring we have thousands of whitefish, trout run by, and we have sea mammals, *ugruks*, seals and belugas coming by. And then upriver, we have all this birch and jade and flint, that they come down to trade with, like furs.” Schaeffer recalls villagers from Little Diomed used to travel to Kotzebue every summer where they traded and carved ivory including

master carver Charlie Ayapana who used a drill bow to produce his artwork for sale.¹⁴⁹ In describing tools found at the Old Tigara site in Point Hope, Henry Koonook (April 2010:6) also described the importance of trade, “we bartered, we traded information, material, food, stuff like that. It was important to communicate with the outsiders, just to get this kind of stuff.”

During the early 1880s, Murdoch (1892:49) described a gradual transition from trade between Native nations to a dependence on Western whalers for supplies of iron, arms, tobacco and beads in exchange for the villagers’ furs, clothing, woodenware, and fossil ivory. The transformative impact of whaling ships can be seen on twenty-nine drill bows with engraved ship imagery and scenes of umiat and kayaks paddling out to trade (Fig. 119).

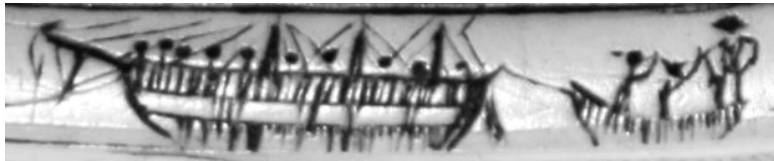


Fig. 119. Bering Sea villagers offering trade goods to a crewmember of the nearby whaling ship. Ivory drill bow PENN NA9387.

Contemporary Trading and Gifts

Contemporary carvers continue an internal trade for walrus ivory and other natural materials. While visiting in Sulianich, Jon Ipalook (March 2012) and Kenny Tikik (March 2012) of Kotzebue discussed exchanging some of Tikik’s caribou sinew in return for pieces of Ipalook’s ivory. Likewise, Henry Koonook (April 2010) acquires ivory from the walrus he hunts but if he runs out or doesn’t secure a walrus, he has to purchase ivory.

¹⁴⁹ Schaeffer (April 2012) states villagers from Little Diomedes stopped their annual trips to Kotzebue following the summer of 1967 when a group of young people slashed the hides on the visitors’ skin boats.

In contrast, the relative abundance of baleen in Point Hope offers trading potential and Koonook might offer a sled load of ice in exchange for a bunch of baleen. Other carvers discuss receiving unworked ivory as gifts such as Jon Ipalook (April 2012) who received a quantity of ivory purchased from the Alaska Fur Exchange in Anchorage by his family who presented it as a birthday gift. Likewise, Brian Sockpick (April 2012) shared his father Teddy Sockpick left raw ivory to his children when Teddy no longer carved. Jack Frankson Jr. (March 2012:2) of Kotzebue describes the import of older carvers such as Kenny Tikik who likes “to motivate other younger carvers” and who gave Jack some mammoth ivory to use. Carvers may also reciprocate a carved gift for the free ivory they receive. While visiting with Henry Koonook (April 2010), he was in the process of carving a cribbage board for a friend who had given him some ivory the previous fall. Likewise, Francis Alvanna (April 2012) received six female tusks as a form of payment from a man whose truck he had helped fix and didn’t have money to offer. Alvanna also recalls that during a dance festival at Wales the local preacher asked if he carved female tusks and gave him a tusk found on the beach.

Purchasing Tusks

During the 1870s, the Alaska Commercial Company at St. Michael began acquiring walrus tusks from outlying villages to trade or sell to carvers who were staying at St. Michael (Ray 1996:105). Around this time, traders drilled holes through the ends of whole tusks for stringing onto a line for transportation and bartering purposes. Local village stores also participated in early acquisitions of ivory tusks commonly offering store goods in return (Fig. 120). Unlike the abundance of ivory used by carvers in the past, many contemporary carvers purchase unworked ivory due to resource scarcity

(Henry Koonook April 2010). Reduced quantities of raw ivory reflect a decrease in walrus hunting in addition to alterations in walrus migration patterns and population diminishment in the more northern herds. With a high premium on ivory, small pieces may be incorporated into larger whalebone carvings or used as knobs for baleen baskets. Carvers also try to utilize and save every part including the scraps and ivory dust. Gary Sockpick (June 2012:3) brought out small plastic bags of ivory dust he kept and remarked, “All the scrap I try and save because we might use it for something else, like little dots or something. Save all the ivory, even the dust...save whatever’s usable.” The Sulianich Art Gallery in Kotzebue and the King Island Native Community carving shop in Nome proffer community boxes of bone, baleen and ivory bits and pieces for carvers to use in an effort to assist with high costs of carving material (Fig. 121).



Fig.120. Alaska Natives exchanging a walrus tusk for a can of tobacco in Wainwright. Photograph by Alfred M. Bailey titled “Alva and native store,” 1921. Denver Museum of Nature & Science Image Archives, IV.BA21-068.P.

St. Lawrence Island has long been a large source of walrus ivory and now supplies many of the mainland communities with unworked tusks. The King Island

Native Community purchases tusks from St. Lawrence Islanders and then resells them to King Island carvers and other Native artisans. Cindy Beamer, past manager, lamented the fact that the most prized tusks, those of female walrus, are sent to Anchorage where they can obtain higher prices than those in Nome. During the spring of 2012, the King Island community held a stock of 20-30 tusks available to carvers for about \$35 a pound (Fig. 122). Some local carvers in Nome purchase tusks from the shop but others wait for opportunities to get better prices from visiting villagers. For instance, Francis Alvanna (April 2012) notes he has purchased a couple of tusks from the King Island shop but for the most part buys ivory off of visitors from Little Diomedes or St. Lawrence Island who travel to Nome in need of money after hunting and the tusks can then be purchased at a lower price. In contrast, Joe Kunnuk (April 2012) relates high prices asked by St. Lawrence Island villagers saying the going price in Nome was forty to forty-five dollars a pound while the visitors wanted sixty dollars a pound. Kunnuk claims people in Anchorage are willing to pay that much for tusks but not in Nome because carvers received less for their finished carvings.

Levi Tetpon (June 2012) purchases most of his ivory from a middleman who travels to St. Lawrence Island to obtain ivory and then resells it to carvers in town. Tetpon states he is paying almost forty dollars a pound for new ivory and sixty to seventy dollars a pound for old ivory. Vince Pikonganna (April 2012:6) remarks he purchased new and old ivory from a young woman from St. Lawrence Island, paying sixty dollars a pound for the old ivory, while also purchasing ivory from other villages. Joe Akaran (April 2012) recalls due to the lack of ivory in St. Michael he once traveled to Stebbins and purchased \$100 worth of small ivory chunks. Enoch Evak (March 2012) explains

walrus are currently far out in the ocean but recalls seeing a few walrus around Kotzebue Sound as a young boy. John Heffle (May 2012:4) explains that during the summer months of July and August in Barrow ivory can be purchased at lower prices than during the winter, when stocks of ivory start running low stating in the summer, “It’s a lot cheaper, because they know they can just go get another one [walrus].” Summer visitors from Wainwright also bring ivory along with caribou skins and meat to sell to Barrow residents. Brian Sockpick remarked he had a bunch of stored whalebone but not much ivory due to the high expense, whereas he used to buy ivory cheap he’s now found it to be in the hundreds of dollars. Sockpick notes he used to purchase most of his tusks from Shishmaref but most of the local carvers are now keeping them to use. When asked if fewer people were hunting walrus in Shishmaref, Sockpick (April 2012:13) stated, “they have to go way far because it’s so shallow on the sea side. That’s how come they don’t whale hunt, too shallow.”



Fig. 121. Boxes with free odds and ends of whalebone, caribou antler, baleen and ivory for carvers to use at the Sulianich Art Gallery. Kotzebue, AK. 2010.



Fig. 122. Ivory tusks for sale at the King Island Native Community building. Each tusk is marked with a walrus identification number. Nome, AK. 2012.

Contemporary Issues: Eskimo Walrus Commission and Sales of Ivory

In Barrow, Beverly Faye Hugo (2011) asserts, “We are really noticing the effects of global warming. The shorefast ice is much thinner in spring than it used to be, and in a strong wind it will sometimes break away. If you are out on the ice, you have to be extremely conscious of changes in the wind and current so that you will not be carried off on a broken floe.” Diminishing sea ice and alterations in haulout locations are being closely monitored as well as their subsequent impact on the size of walrus herds and migration patterns (Carleton 2009:50). The Eskimo Walrus Commission was established in 1980s and has board members in communities throughout the Bering Strait. Francis Alvanna (April 2012) represents King Island on the Eskimo Walrus Commission and works with hunters to record and tag their ivory. Alvanna maintains many hunters won’t tag or record their ivory and he doesn’t know why. When I asked Alvanna if he foresaw a decrease or disappearance of the Pacific walrus population he said Native hunters would never deplete the herds. Within several Iñupiat communities, contemporary hunters pursue walrus less avidly than in the past. A decrease in walrus hunting stems from a myriad of factors including wage employment demanding a large part of contemporary hunters’ time, Western food making up a larger part of the diet, and walrus moving farther out from the northwest Alaskan coastline. Further, the need for large quantities of walrus meat to feed dogs has diminished with the rise of snowmachines and once essential walrus hide for rope and umiat covers has been replaced with synthetic materials and boats.

Despite the decrease in walrus hunting, a steady demand still exists for new walrus ivory. The steady and legal exchange of walrus ivory went on until 1941 when

Alaska passed the Walrus Protection Act halting the export and exchange of raw ivory from Alaska. The Marine Mammal Protection Act was passed in 1972 that allows only Natives to hunt walrus and this under a subsistence use exemption. Fosdick (1985) notes the positive and negative effects of the Act on carver's access to ivory maintaining hunters have small competition in the hunting of walrus but carvers must often compete with the black market to attain tusks that causes prices to soar. On the other hand, other carvers support the Act such as Edwin Weyiouanna (June 2012) who claims the passage stopped international carvers and those in Seattle from copying the work of carvers in Shishmaref. For this reason, Weyiouanna, often incorporates ivory into his whalebone designs so they are unable to be copied by non-Native artisans. The Convention on Trade in Endangered Species (CITES) identifies walrus as a "potentially threatened species" which is felt keenly by many native artisans. For instance, during May 2012, a group of Australian tourists to the Inupiat Heritage Center in Barrow visited with carver and etcher Gilford Mongoyak but did not purchase any artwork. Mongoyak (May 2012) describes the negative impact of CITES on the ability of foreign tourists to purchase Native artwork made from baleen and ivory with many visitors believing it would be seized at the border even with a card or certificate identifying it as Native artwork.

CHAPTER 4

LEARNING PROCESSES OF IVORY CARVING IN THE QAGRI

Carving Ivory in the Qagri

Drill bow use occurred within a larger realm of physical activity related to implement construction and repair inside the qagri. Qagri served as communal spaces of social, spiritual and intellectual activity within many twentieth century Bering Strait communities. Carving tools from archaeological sites appear in both individual houses and large qagri-type structures suggesting both personal and communal ivory production. Edward Nelson (1983:286) observed that during the 1880s, “men are nearly always to be found in the kashim when in the village, this being their general gathering place, where they work on tools or implements of the chase, or in preparing skins.” Likewise, Sylvester Ayek (April 2012:5) explains, “As boys we were always in the clubhouse. Where all the carving, and tool-making and implement construction, kayaq construction, took place.” Sitting with legs outstretched, carvers could chat and relay stories while undertaking the painstakingly slow task of engraving motifs on minute ivory surfaces. Carvers-in-training had opportunity to observe tools and techniques being used as sounds of splitting, sanding and scratching punctuated stories of ancient creatures and hunting exploits. Modified forms of contemporary qagri exist at the Iñupiat Heritage Center (Barrow), Sulianich Art Gallery (Kotzebue) and King Island Native Community carving shop (Nome).

Five engraved drill bows depict qagri next to tall poles surmounted by carved animals including caribou, geese and a wolf (see Appendix F, “memorial pole”). Drill bow E24541 depicts a carved caribou and a goose erected on memorial posts at the front

and back of a large qagri (Fig. 123a-b).¹⁵⁰ The scene appears to be a Feast to the Dead in which visitors on sleds are welcomed with dancing outside the entrance to the village. Nelson comments, “The practice of planting stakes beside the grave bearing a wooden model of the seal spear, of various animals, or of an oar or paddle, is always observed just before the feast to dead and each relative, who will make an *egruska* for deceased, whittles out a pole or stake upon which is placed any of the models mentioned if deceased is a man.”¹⁵¹ Villagers held the carved poles in high esteem refusing to exchange the figures for trade goods and sometimes erecting the poles while traveling during the summer. While at Port Clarence in 1879 Adolf Eric Nordenskiöld unsuccessfully attempted to trade a felt hat for carved “tent idols” consisting of wooden birds with outspread wings painted red and erected on posts next to two tents (Nordenskiöld 1881:239). Nordenskiöld’s account of carved posts at the Port Clarence trading fair suggests the posts were also used to identify a particular family group or village among the many visiting tribes camped on the beach.

In 1879, Edward Nelson visited the village of Nunwogumut and describes qagri built with long entrance passageways and a number of wooden figures nearby resembling the grave monuments at Tununuk.¹⁵² Johan Adrian Jacobsen visited Tununuk in 1882-1883 and observed the memorial poles “consisted of carved figures, some dressed. The arms of these figures were made of walrus tusks. Beside them were models of kayaks, bows and arrows, seals, and caribou, suggesting that the person buried there might have

¹⁵⁰ The poles perhaps bear a related social significance to memorial poles found within Southeast Alaska clan communities.

¹⁵¹ SIA, *Nelson Journals*, April 6, 1881.

¹⁵² SIA, *Nelson Journals*, January 8, 1879.

been killed while hunting walrus, seal, or caribou.” (Jacobsen 1977:175) (Fig. 124). It appears villagers first displayed the posts with carved animals next to the local qagri during a Feast to the Dead before relocating the posts to the gravesite (Nelson 1983:363).



Fig. 123a. Visitors arriving on sleds welcomed with dancing outside a qagri. Ivory drill bow NMNH E24541.

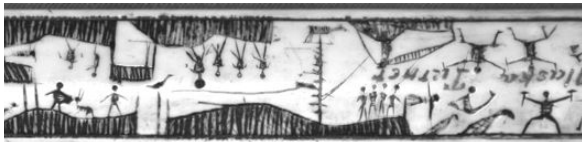


Fig. 123b. Qagri framed by memorial posts with a carved caribou and goose on drill bow NMNH E24541.



Fig. 124. Memorial posts with carved animals (caribou, wolves, fish and whales) and figural poles with extended arms surrounding grave boxes. Photograph with the caption “Esquimaux Monuments” taken in 1886 during the Arctic Cruise of the U.S. Revenue Steamer *Bear*. The Bancroft Library, University of California, Berkeley, BANC PIC 1905.12658-PIC.

Northwest Alaska Construction

Iñupiat and Central Yup’ik communities constructed qagri with a floor plan similar to smaller houses in the village. Jackson (1893:1288) describes the qagri he encountered as being approximately 60 feet square and 20 feet high with three levels of benches or platforms. Within the study group, seventy-eight drill bows appear to include

qagri based on activities portrayed inside and next to entrances as well as the large size of the structures in relation to nearby sod houses. Engraved qagri appear to have driftwood frames with sod and/or caribou skins across the structure (Fig. 125). Qagri typically had two entrances, one through a tunnel and one through a hole in the ceiling (Fig. 126). Hawkes (1913:4) states shamans and dancers entered through the winter tunnel while the remainder of the community gained entrance through the ceiling. Sylvester Ayek (April 2012) describes the King Island clubhouses as being just large enough to construct a full-size kayak.

While on King Island in the 1930s-40s, Bellarmine Lafortune described three active men's houses including *kaluilit*, *agullit*, and *nutaat* where men socialized and carved ivory, women sewed umiaq covers and villagers gathered on the flat roofs for work and recreation (Renner 1979:133). Vince Pikonganna and Sylvester Ayek recall the three qagri or clubhouses used on King Island as they were growing up noting each clubhouse had its own group of people. Ayek (April 2012) states clubhouse membership was different than the clan system in southeast Alaska as clubhouse groups were composed of family and extended family members. The diminishment and gradual absence of qagri in Point Hope is noted by Foote (1992:174) who notes that while there used to be six or seven qagri in the village, by 1959 none remained in use and men carved at home.

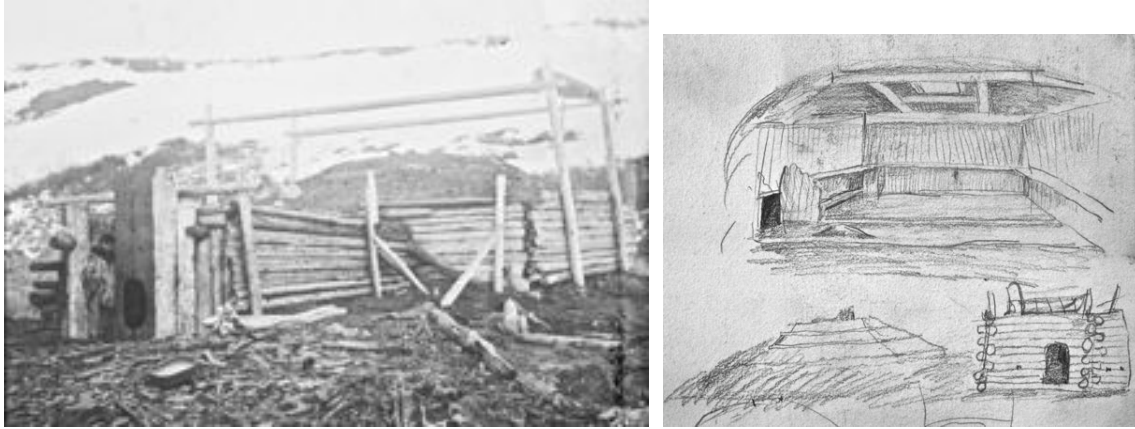


Fig. 125. Qagri at St. Michael with a man standing at the entrance and a large bentwood bowl in the foreground. Photograph by Edward Nelson, 1879. National Anthropological Archives, Smithsonian Institution, NAA INV 01434600.

Fig. 126. Multiple views of a qagri, probably at St. Michael, drawn by William Healey Dall between 1865-67. The top image depicts both ceiling and underground passageways into an interior where platform benches line the walls. Smithsonian Institution Archives, Record Unit 7073, Box 31, Folder 1.

Siberian Yupik Construction

Within the drill bow study group, eight drill bows depict engraved domed yurts or *manteghapik* with walrus skin roofs indicative of Chukchi and Siberian Yupik cultures (Fig. 127).¹⁵³ During the early nineteenth century, Siberian Yupik communal buildings consisted primarily of large semi-subterranean structures similar to Iñupiat construction that were used by several families for ceremonies, feasts, religious practices and other group activities (Hughes 1985b:251). Otto von Kotzebue describes semi-subterranean houses at East Cape, Siberia in 1816 with dwellings resembling hills surrounded by bowhead whale ribs (Kotzebue 1967:244). Farther south on St. Lawrence Island, Kotzebue (1967:188) recounts a group of visiting Chukchi whose small tents consisted of whalebone ribs covered with walrus hides.

¹⁵³ Due to structural similarities, distinguishing between communal and private tents on drill bows poses difficulty.

During the middle of the nineteenth century, houses and qagri in Eastern Siberia and St. Lawrence Island began to emulate the conical tents of the Chukchi described by Kotzebue. The adaptation of the tent structure reflects the movement of Chukchi groups pushing eastward towards the coast of the Chukchi Peninsula.¹⁵⁴ Conical tents or houses varied in size with smaller ones occupied by single families as well as for summer travel. Larger-scale tents resembled those of single-family dwellings but provided space for communal activity. An illustration by Louis Choris depicts the interior of a large tent with a child and row of tattooed women wearing blue beads, two men visiting by the fire, and another man putting on red face paint (Fig. 128).¹⁵⁵ A bundle of spears lean against the wall while a painted quiver hangs suspended from hide rope.



Fig. 127. Siberian yurts and reindeer engraved on ivory drill bow BM Am1925.0508.3.



Fig. 128. “Interieur d'une habitation de Tchouktchis.” Watercolor by Louis Choris.

¹⁵⁴ In addition to conical lodgings, when the Chukchi moved east they also introduced reindeer herding to Siberian Yupik Eskimos living along the Siberian coast. Engraved drill bow motifs of conical tents often appear in conjunction with reindeer suggesting adaptation to this new lifestyle.

¹⁵⁵ Adelbert von Chamisso, naturalist on the *Rurik*, remarked that the Chukchi inhabiting St. Lawrence Bay possessed a quantity of graphite which they used to paint crosses and various figures on their faces (Kotzebue 1821:269).

H 25.7, L 41 cm. Courtesy Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, WA MSS S-260, object id 10604667.

Fig. 129. “Esquimo Summer House, St. Lawrence Island.” Photograph in an album compiled by Alfred L. Broadbent of the U.S. Revenue Cutter Service in Alaska and Siberia, 1885-1892. Courtesy Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, WA Photos 397, object id 2019834.

By the second half of the twentieth century, conical dwellings had largely supplanted previous house designs within Siberian Yupik villages. Some of the earliest adaptations of the conical tent by Siberian Yupik Eskimos can be seen on engraved drill bows acquired by Frederick Beechey in the 1820s. As seen in a photograph from St. Lawrence Island, the conical structure typically featured plank siding and a wooden lattice roof covered with walrus hides tied down using hide rope with stone weights on the ends (Fig. 129).¹⁵⁶ A group of vertical beams within the interior raised the roof in a tent-like manner and extended through an opening that also provided ventilation for a central fire pit. Turf and stones piled around the structure’s perimeter provided additional support and insulation. Despite the presence of communal structures, Siberian Yupik communities do not seem to have practiced the formalized institution of qagri groups as in Northwestern Alaska (Hughes 1985b:244).¹⁵⁷ However, in 1849 William Hulme Hooper described dancing and feasting in a qagri along the eastern coast of Chukotka. (Hooper 1853:137).

¹⁵⁶ Electrical wire leftover from the Western Union Telegraph Expedition was also utilized following the 1870s.

¹⁵⁷ Perhaps this understanding is based more on lack of recorded information on societal and political activities within Siberian Yupik communities than actual circumstances.

Social Structure and Center of Activity

Physical activity surrounding drill bow creation occurs within two distinct landscape settings. The first involves an outer realm comprised of an expansive setting of ice and sky surrounding a hunter on an early summer hunt for walrus. Following the procurement of walrus, physical activity moves to an inner realm structured around the qagri where tusks can be dried, split and carved. Storytelling framed activity both within the outer and inner realms reinforcing cultural beliefs and guiding the actions of younger listeners.

A few accounts provide insight regarding initiation into a local qagri. In speaking of the qagri at St. Michael, Hawkes (1913:4) states, “As a child he must gain admittance by gifts to the people, and to the kázgi inua, the spirit which is master of the kázgi.” Curtis (1930:104) describes the use of a drill bow during a young man’s initiation into a qagri on King Island: “A youth who kills his first seal must cut up the skin into lines and lashings, and distribute them to the villagers. He is further required to sleep four nights, without covering, at the entrance to the men’s house, using some ivory-carving tool, perhaps a drill, for a pillow. On the termination of this ordeal, his father and uncle cut off all his hair.” Seating position within the qagri also carried social significance. In the story, Isiqiak, told by Robert Nasruk Cleveland of Onion Portage, he describes the importance given to Tulugaq, who was “seated on a high bench above the entrance” where he surveyed the “sumptuous food” laid out before the guests and “took a portion of each kind of food to eat.” (Anderson 2005:121). Likewise, Hawkes (1913:4) attributes significance to seating position within a qagri, “In manhood he takes his seat on the inlak, or platform according to his age and rank.” Vince Pikonganna (April 2012) also explains

that King Island carvers each had their own spot in the qagri where they worked on projects (Fig. 130).

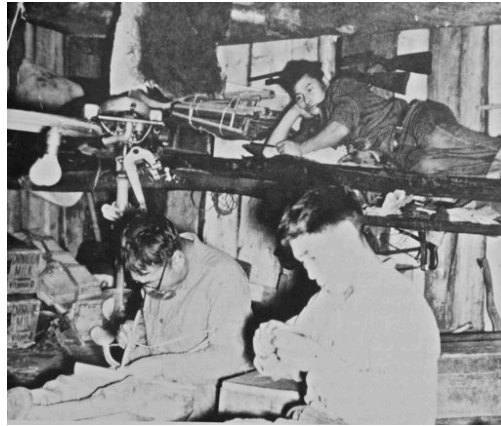


Fig. 130. King Island men carving in the Agulliit qagri. The bow drill carver on the left appears to be making a cribbage board. A bare bulb lights a room filled with empty milk boxes, rolled up animal skins, clamps, saws and other tools. Two rifles hang on the wall behind the man reclining on a platform bench. Photograph by Bernard Hubbard, 1937-38 (from Renner 1979).

The earliest known evidence of qagri used for male-centered activities appear at the Ipiutak sites at Point Hope and Cape Krusenstern. These structures range from 45 to 100 square meters and contain assemblages of gender-related tools (Mason 1998:303).¹⁵⁸ Sylvester Ayek (April 2012) speaks of learning how to carve in clubhouse #2 on King Island where the boys would be instructed to carve, make tools, etc. Vince Pikonganna (April 2012:1) describes learning how to carve on King Island, “I learned by trial and error, on my own, mostly I watched in the clubhouse, how my elders carved. If I wanted to learn how to make a cribbage board or something, I just go to the man that is doing a

¹⁵⁸ While qagri are generally considered men’s houses or activity centers, Mason (1998:302) cautions against the exclusion of women arguing additional information from ethnohistorical sources may alter the conception of qagri as being the sole realm of men. Women were certainly not excluded from qagri and were active participants in dancing and feasts held in the centers. Likewise, women often brought food to their husbands or other male relatives while they were working or staying in the qagri.

cribbage board. I watch him how he does it, from start to finish.” Contemporary ivory carving as a male activity greatly pertains to enduring Iñupiat ideologies regarding men as sole hunters of marine animals (Jolles 2006:255).

A general gender differentiation identifying men as carvers and women as sewers is described by Edward Nelson (1897:197) who observes that along the Bering Strait, “men make very handsome ivory work [while] the women are equally skillful in beautiful ornamental needlework on articles of clothing.” Likewise, James Omiak (April 2012) states that when growing up on Little Diomedede in the 1930s, women sewed but never carved. Similarly, Vince Pikonganna (April 2012:2) recalls a few female carvers from Little Diomedede and St. Lawrence Island but explains women on King Island worked primarily with “skin sewing and stuff. And they do beautiful work. They got very delicate hands.”

Within other Bering Strait communities, it appears as the tourist market for ivory carvings expanded, women also went to work carving (Fig. 131). Levi Tetpon (June 2012) stresses the leadership role his mother played in the home while he was growing up in Shaktoolik and both his parents carved and sewed as a source of employment. Likewise, Harry Koozaata credited his wife for the quality of his son Warren’s carvings stating, “she would make him do a certain aspect of what he was doing over and over again until she finally got satisfied with it.” (Alaska Native Arts 1982).

Gary Sockpick notes there are several women who carve in Shishmaref. Sockpick (June 2012:9) explains ivory carver Susie Silook of Gambell “only does like spiritual things. She said she can’t carve any of the animals, she’s not a hunter. She didn’t want to offend the animals so she only does the spiritual stuff.” Gilford Mongoyak (May 2012)

describes his wife Flossie Mongoyak received a creative gene from her uncle, master carver Reverend Samuel Simmonds, and she specializes in carving ivory rings but only when she has time.



Fig. 131. “Eskimo Girl Ivory Carver.” A female drill bow carver possibly from King Island. Photograph by Robinson Studio, 1939-1959. Alaska State Library, Historical Collection, ASL-P42-130.

Carvers also took their work with them when they travelled to other villagers, summer camp or out on the ice. When looking at a photograph of men carving under an umiat in Nome, Ross Schaeffer Sr. (April 2012:5) noted the congeniality of the group saying, “Everybody working together, probably telling stories as they work, laughing all the time.” (Fig. 132).



Fig. 132. King Island ivory carvers working under an umiaq on the beach at Nome. A bentwood toolbox with ivory stays can be seen lower right. Photograph by Curtis Jacobs, 1917-1948. Carrie M. McLain Memorial Museum, Jacobs-395.

Time Spent Carving

Twentieth century accounts suggest most of the carving and engraving done by men was accomplished during the winter. For instance, Beechey (1815:302) writes that when they were in Kotzebue Sound they did not have opportunity to see activities which he considered done in the winter including sewing fur clothes and remarked they must be kept busy “carrying and ornamenting their property, for almost every article made of bone is covered with devices.” Likewise, Arutiunov (2009:128) describes an ancient winter scene characterized by “small spaces lit by oil lamps promoted the slow, detailed and delicate decoration.” Gordon (1917:217) also stated that during the winter men kept “alive all those industrial arts and aesthetic pursuits” which involved constructing sleds, weapons, tools and wooden serving dishes. Lucien Turner also remarks on the time invested in engraving ivory stating, “These sculptures are not made in a day, week, or month; many objects are not completed in years, as many are the life histories of the individual.” (Hoffman 1897:785). With the gradual transition from internal use to outside consumption, many carvers adapted new technologies for faster production such as a use of lathes for carving ivory beads.

Contemporary carving is typically not the main source of employment, so projects may be worked on in one’s free time or when in need of ready cash. Levi Angutiqjuaq (March 2012:6) of Kotzebue explains that in his hometown of Igloolik, “We carve any day of the year. Even if it’s minus thirty to forty.” Angutiqjuaq notes that most of the rough work is done outside in the cold weather due to the dust whereas the finishing

details are typically done on the porch or inside the house. In more urban communities, like Barrow and Nome, carving might increase before and during the summer months for the busy tourist season. Further, seasonal subsistence cycles such as fishing and whaling, often scale back the amount of ivory carving that is done. For instance, during my visit to Point Hope in April, several individuals were in the village carving while they waited for a north wind to open the ice back up so they could return to whaling.

Community responsibilities also vie for time as noted by Steve Oomittuk (April 2010) who expressed difficulty in finding time to carve while involved with city affairs. Actual time spent carving a piece is highly variable depending on the skill of the carver, the size and complexity of the object and the type of tools used. For example, complex projects like cribbage boards take days to complete as noted by Vince Pikonganna (April 2012:1), “It takes days to make a cribbage board, way back when, it still does today. It takes me about, depending on what I put on...about two weeks, from start to finish, to make a cribbage board.”

Not all carvings are time driven by economic incentive. Vince Pikonganna (April 2012:2) stresses the value of taking time to conceptualize the project before beginning to carve, “Before I do anything, I like to take my time, think about what I’m going to be doing, two or three days...have a little plan, and go into it.” Similarly, when a prospective buyer asked Joe Kunnuk to make an ivory and baleen airplane, he told her he would need to study and work it out first. Kunnuk (April 2012:8) maintains before he begins a new carving, “I do my thinking, think about it at least three or four days before I start it. I just don’t sit and do it right now.” Flora Matthias (April 2012:3) asked her husband Albert to carve her a pair of ivory basket sled earrings and when she grew impatient waiting, he

told her he was “fixing it in my mind.” Albert Matthias notes he always takes time to conceptualize a carving and says when trying out a new design the second one normally turns out better than the first as he works through the details.

Once a project is started, Jon Ipalook (March 2012:10) notes the importance of putting aside a carving and coming back to it at a later time as each carving, “has a tendency to speak to you in its own way. So as you’re contemplating what to do with it, you know there’s sometimes you just got to set it down and let it find its own. That’s where I find a lot of my creativity comes from, is having that option to respect the piece, not in a manner of rushing it or trying to get it done.” While in Barrow, William Simmonds (May 2012) worked on a walrus skull mask and said he might switch to etching a knife blade after a while as he prefers to set aside projects for a time while working on them so mistakes or possibilities become visible. It also appears that drill bow carvers practiced setting down a piece and coming back to it later as evidenced by the multiple hands on one bow. Carvers were not hurrying to fill in the spaces letting time and experience pass before adding to or elaborating on earlier motifs.

Learning how to Carve

Within the twentieth century qagri complex, communal carving probably took precedence over solitary activity when young boys first learned to carve. Hayden and Cannon (1984) delineate six modes of learning which are particularly useful in understanding teacher-learner interactions between carvers: Family-Centered, Corporate, Kin-Extensive, Minimally Structured, Formal Schooling and Specialist. Similar to many subsistence activities, the Family-Centered mode dominates learning processes relating to ivory carving. Young boys traditionally learn to carve from relatives through observation

and gradual participation. For instance, Henry Koonook (April 2010) describes learning how to hunt and carve from his grandfather, father and uncles. When beginning training, a young boy may sand or polish an experienced carver's work before receiving a piece of his own ivory to carve. His progress is then carefully watched and assisted by a more experienced carver (Ray 1980:27-8). Learning also takes place in the Minimally Structured mode as demonstrated in 2005 when Viktor Vikhlyantsev from Magadan, Russia traveled to Point Hope and held an ivory carving workshop at the school for interested students and adults. Finally, ivory carving in the Formal Schooling mode takes place occasionally at institutions such as the Extension Center for Alaska Native Arts in Fairbanks.

Many of the older carvers who participated in this project recalled joining older carvers and eventually working on their own projects around the ages of nine to eleven. Jack Frankson Jr. (March 2012:1) describes helping his father by sanding carvings when he was young and recently started carving on his own because, "My dad inspired me through watching him over the past twenty years, because he's a master carver." (Fig. 133). Frankson notes that his brother is now helping sand his carvings in preparation for becoming a carver himself. Frankson also benefits from the advice of Kenny Tikik who often comes to Maniilaq where several carvers and artisans sell their work. Frankson (March 2012:2) explains that as a beginner, "We show each other our carvings and give each other ideas. He gives me ideas, tells me what I should do, or how I should fix something." Eben Hopson (May 2012) of Barrow also learned to etch baleen from his father (Fig. 134). Kenny Tikik (March 2012) describes that through patient observation of his father twenty years ago he learned how to drill straight bracelet holes for ivory links

by drilling from one side and then the other side. Tikik also credits Steve Oomittuk for teaching him how to carve faces with proportionate eyes by beginning with a whale's tail and then filling in the rest of the area. One Saturday afternoon in the Sulianich Art Gallery, Ross Schaeffer (April 2012) took younger carver Emmanuel Hawley through the necessary steps to make a whalebone drummer with an ivory face (Fig. 135). Schaeffer did not offer verbal instruction but offered a few comments as Hawley quietly observed the formation of the mask.

Jerome Saclamana comments that when learning to carve, a young apprentice did not ask questions but watched closely and tried to do the same. Saclamana (April 2012:10-11) explains when learning from his father, "I used to just watch him. I didn't ask too many questions. I figure when you're watching, you're already imposing, you don't want to impose too much by asking too many questions." Extended family members also served as carving teachers. John Pullock (April 2012:5) credits his cousin for getting him started carving, "And my older cousin, he start showing me how to make seals. And I did. And after that, I started to copy what the older people carve. They don't show us but if we do something, they tell us, so you fix that. They don't go, you carve this way, you do that. We carve ourselves, but out of way, out of shape, what we try to carve, correct this, that's the only way they told us." Likewise, when speaking about learning how to carve along with other subsistence activities Henry Koonook stressed the role of his grandparents, parents and extended family as teachers. Speaking of passing subsistence knowledge on to the younger generation, Koonook (April 2010:2) maintains, "it's important to have people like myself and others that use these thing up 'til

today... We might have to go back and live the old way. They'll at least have a piece of information that can be used, that was used five hundred years ago."



Fig. 133. Jack Frankson Jr. holding an ivory bracelet and pair of walrus earrings he carved. Kotzebue, AK. 2012.



Fig. 134. Eben Hopson etching baleen in the Iñupiat Heritage Center. Barrow, AK. 2012.



Fig. 135. Ross Schaeffer Sr. showing Emmanuel Hawley how to make a whalebone and ivory drummer in the Sulianich Art Gallery. Kotzebue, AK. 2012.

First Carving Projects

When learning how to carve, young boys will often start out sanding or polishing an older carver's project. Levi Tetpon (June 2012) recalls his first duty as a young apprentice carver involved rubbing polish on his father's carvings and applying black India ink to the finished product. Brian Sockpick (April 2012:11) known from his lively

etched scenes describes making a pendant for his first project, “After I asked my dad for money. He gave me a little piece of white ivory; you’re going to make your own money. And he penciled it in and said follow the lines. So, that’s how I started...I got ten bucks for it. Most money I ever had. And after that, I just started carving more and more.”

Enoch Evak (March 2012:2) also creates highly detailed etchings but on baleen and shares he learned to draw as a preschooler when his father told him to copy a drawing of a dog and states, “I’ve been copying ever since.” Most of Enoch’s designs are based on photographs of illustrations found in newspapers or magazines. However, the transformation of color photograph into highly detailed and shaded etchings is much more than copying, requiring a thorough preparation of the baleen surface, compensation for variability in natural materials, as well as the extensive shading and depth he adds to his etched illustrations.

Many King Islanders describe one of their first projects involved carving an ivory seal from a short walrus tooth. Vince Pikonganna (April 2012:1) recalls, “I didn’t try to carve until 1957, 58, somewhere there, maybe even younger, trying to make a seal, which took me probably two days to finish, small one, maybe two inch, maybe one inch. But I went to the store and sold it, and got a candy for it. And that encouraged me; that encouraged me to continue my carving.” John Pullock also started out carving walrus teeth. Pullock (April 2012:5) observes, “When we were young, we used to begin with walrus teeth...file it, smooth it out, polish it and put a hole in it, for a keychain. And those used to sell for one dollar, no matter how big they are, way back then, to tourists.” Francis Alvanna recalls learning how to carve in the qagri on King Island when he was four or five years old also starting out with a walrus tooth. Alvanna (April 2012:2)

explains, “when we first started, learn how to use a file, we file on a walrus tooth. Take all the brown stuff off, they make a keychain. And I would etch on it, a seal or walrus etching...As you grow older, you carve more, and make something else.” Jerome Saclamana (April 2012:11) affirms, “I think everybody started off with a walrus tooth. And then, after that...a seal would be next. Get a pencil and then draw, as much as you can, of a seal. And then, my dad or uncle would say, you’ve got to cut it this way. They would shade where it needs to be cut off. And you’ve got to file it, you’ve got to round it.” Joe Kunnuk (April 2012:5) also describes carving a small animal as a young man, “my first little walrus I made, real tiny, handmade one. That’s when I was twelve or thirteen years old that time. It looks so funny in there, everybody was laughing at it. I said to myself, one of these days I’m going to start really carving. Which I did.”

Transformation of the Traditional Qagri

Despite the varied vocational and social aspects of traditional qagri, outsiders tended to focus on the feasts and dances and many viewed the centers as promoting sacrilegious lifestyles. Following the increase of missionary pressure in the late twentieth century, qagri began to be replaced, often with schoolhouses, as centers of activity. Lowenstein (2008:208) describes schoolhouses as a new meeting place where children and adults gathered for food, medical aid and as a general meeting. In 1892, the Point Hope school teacher, Driggs, observed, “You can form some idea of what I mean by the lack of time, when my school room is crowded every day with scholars, patients, and others that I classify as visitors, but who as a rule have some favor to ask.” (Lowenstein 2008:208). Although qagri groups or clans remained in place at Point Hope, Lowenstein (2008:312) argues that by the early twentieth century, qagri houses ceased to exist and

the traditional celebrations continued in Western structures including “the school, the Native store, and Browning Hall.” Albert Matthias (April 2012) observed the last qagri he saw in southern Norton Sound was at Emmonak, which was constructed of logs and covered with mud.

The absence of qagri within some northern communities certainly altered the means in which a young boy learned to carve. As early as 1913, the King Island qagri was being replaced or at least amended as the sole group carving space by the workshop Bellarmine Lafortune established in Nome. Michael O’Malley, S. J., Lafortune’s assistant, described the workshop as a lively center of religious and social activity during which “The Eskimos made sleds and carved designs on walrus tusks in the workshop that was an extension of their chapel.” (Renner 1979:38). Communal carving suffered a loss along with the decline of the traditional qagri in local villages. Likewise, the creation of boarding schools and forced removal of young adults for villages furthered disconnect between older forms of knowledge acquisition and skills with Western ideas of written knowledge and instruction. Steve Oomittuk notes this disparity within Point Hope stating that his parents and others from the boarding school generation suffered a loss of language and related practices of singing and dancing. Oomittuk (April 2010:9) maintains, “we’re trying to get back that connection. We want the language back. We want our way of life. We want the culture.” Albert Matthias (April 2012) also notes that he spent most of his young adults years away from his parents in St. Michael while he went to boarding school at Wrangell and Mt. Edgecumbe. Partly as a result of this disconnect with tool implement and construction Albert learned how to carve mostly on his own through trial and error experimenting with different tools as designs.

Carving in Quonsets

King Island and Little Diomedé villagers carried out activities in traditional qagri structures until the mid-twentieth century. When King Islanders moved to Nome, they relocated their qagri to a metal Quonset. During fieldwork in the 1950s, Dorothy Jean Ray describes many carvers working in the King Island Quonset located about a mile east from Nome (Fig. 136). Although the Quonset belonged to King Islanders, the community also welcomed carvers from outlying villages. James Omiak (April 2012:7) examined a photo of his father carving at “East End” and recalled that when his family stayed in Nome, his father Vincent “Bob” Omiak, “always carved where King Islanders carved.” Likewise, Brian Sockpick (April 2012) recalled his father Teddy Sockpick from Shishmaref spending a good deal of time carving with King Islanders in the metal community center. Photographs and oral accounts reveal the majority of carvers used drill bows and other traditional hand tools while working in the Quonset. Unfortunately, a destructive flood hit Nome in 1973 and destroyed the community house as well as most of King Island Village. Hubert Payenna regrets the loss of the Quonset hall that led to people carving in their homes, “When we used to have the hall, other people from here and from other states used to come and watch them carve. I wish we did have a hall again.” (Alaska Native Arts 1982). Farther north in Barrow, Gilford Mongoyak (May 2012) notes they also used a metal Quonset as a community building for carving and Eskimo dancing. In describing life growing up at East End in Nome, Jerome Saclamana (April 2012:10) states he and his brothers learned to carve from their father and uncles, “That was back in the day when there’s the whole village raised their children...we grew up, together and close.”



Fig. 136. Carving ivory in the King Island clubhouse in Nome. Photograph by Dorothy Jean Ray, 1955 (from Ray 1980:Fig. 94). The two men are John Charles “Charlie” Oarloranna (Olanna) on the left and Thomas “Tom” Samnarana on the right. In 2012, King Island carvers identified the boys as Joe Kunnuk (left) and Mike Saclamana (right).

Carving at Home

Contemporary carvers express varied preference for carving within a group or in a solitary setting. Although Joe Kunnuk carved with others as he was growing up, these days he enjoys carving primarily in his well-equipped workshop at home (Fig. 137). Kunnuk (April 2012:5) explains, “I enjoy working with other people but then most of the time I work [by] myself. Because I do better without anybody always bothering me.” Similarly, John Pullock (April 2012) learned to carve in the qagri while growing up on King Island but today he carves in a small space, his “studio,” which unfortunately often fills up with his sons’ things leaving him little room to carve. In Shishmaref, Edwin Weyiouanna (June 2012) carves inside a Conex out back of his house (Fig. 138). Jack Frankson Jr. (March 2012) notes he typically carves in a back room at home. Likewise, Jon Ipalook (March 2012:5) sometimes uses the carving workshop at Sulianich Art Gallery to touch up a project but for the most part works at home where he feels “very comfortable in my own little bubble.”



Fig. 137. Joe Kunuuk in his ivory carving workshop. Nome, AK. 2012.



Fig. 138. Edwin Weyiouanna sawing ivory in his workshop. Shishmaref, AK. 2012.

Carving in Local Schools and Universities

John Pullock (April 2012) comments on the difference between how he learned to carve in the qagri on King Island and how his son began an apprenticeship at home but really expanded his skills through a cultural class at Nome Beltz High School. Brian Sockpick (April 2012) maintains that while he learned carving basics from family members, his etching really took off after he took an art class with elders teaching ivory carving at the Shishmaref high school. Older King Island carvers also speak of continuing their artistic education through college courses including Frances Alvanna and Vince Pikonganna who attended the Alaska Native arts and culture class taught by Ron Senungetuk at University of Alaska Fairbanks. Likewise, Sylvester Ayek (April 2012) credits his art professor at Alaska Methodist University in Anchorage who encouraged him to work in different materials and introduced him to abstract artists.

The majority of contemporary young carvers learn at home or in their local school (Fig. 139). In past years, Francis Alvanna (April 2012) taught carving to students in Grades 1-6 as part of an after-school program and notes a requisite patience for teaching

young carvers who will frequently ask if they are finished sanding. Alvanna recalls a similar process of questioning his own father when he learned to carve. During the 1970s, James Omiak (April 2012) taught a high school class at Nome on how to carve ivory bracelets and notes the teachers and students enjoyed the class so much they asked him to return for a second week. Omiak describes one boy he worked with going on and learning how to make ivory bracelets on his own. Likewise, Joe Kunnuk recalls that when teaching ivory carving to high school students most of them wanted to make small animal carvings or rings. Kunnuk (April 2012:16) describes inherent difficulties in combing young carvers with a concrete floor stating, “Ivory’s kind of expensive to work with, with the kids.” During November 2013, Ross Schaeffer Sr. traveled to Buckland and taught high school students how to carve ivory and antler (Fig. 140). Paul Tiulana worked as a cultural teacher with the Cook Inlet Native Association during which he taught ivory, soapstone and wood carving in addition to Eskimo dancing. Tiulana remarked his position involved stressing the values of the ancestors while working with young people, “so they could understand the values of our ancestors and how to apply themselves in urban centers. It’s not easy at all.” (Fosdick 1984).



Fig. 139. Joe Husaik carving ivory at



Fig. 140. Ross Schaeffer Sr. teaching ivory

Eklutna Vocational School in Alaska. Pictured are coping saws, a vice, metal file, sections of walrus tusk and an ivory penholder, probably used as an example for students. 1930-45. Anchorage Museum at Rasmuson Center, AMRC-b75-134-224. carving to high school students in Buckland, AK. Photograph by Ken Phillips, 2013.

Carving Workshops

During the 1980s and 1990s, local workshops proved a popular method for new carvers to learn techniques and develop skills. In 1982, eleven carvers met in Nome for a four-day workshop in ivory, soapstone and wood led by Jim Schoppert. Workshop participants shared design ideas and techniques, how to make effective carving tools and ways to market one's own artwork. (Alaska Native Arts 1982).¹⁵⁹ Vika Owens described travelling with another female ivory carver to different villages to hold workshops and teach ivory carving to both students and older community members. Owen's husband Tony made tools for the participants to use and they would also bring the ivory and other necessary materials. The Friendship Center in Shishmaref initiated by Melvin Olanna used to also host workshops on ivory and whalebone carving. During 2005, Viktor Vikhlyantsev from Magadan, Russia traveled to Point Hope and held an ivory carving workshop at the school for interested students and adults. Likewise, Percy Nayokpuk described a cultural exchange program in which several artists from Uelen came to Shishmaref and taught ivory carving and etching as well as reindeer hair embroidery.

¹⁵⁹ Participants produced twenty-five carvings placed on display at the Carrie McLain Museum for a week following the workshop.

Contemporary Qagri Carving Centers

Several forms of contemporary qagri exist today with a variety of participants and activities. The Iñupiat Heritage Center (Barrow), Sulianich Art Gallery (Kotzebue) and King Island carving shop (Nome) offer communal spaces where carvers can work on projects, share community-owned tools, and visit with one another. In describing the difference between solitary working at home and communal carving, Levi Angutiqjuaq (March 2012:4) notes, “Some people, they’re more comfortable working themselves in their own house...And some people like to work around with everybody, like communicating to each other.”

Iñupiat Heritage Center Traditional Room, Barrow, AK

Opened in 1999, the Iñupiat Heritage Center (IHC) includes exhibits, artifact collections, a library, gift shop, and a traditional room where locals carve, sew skin-boat covers and demonstrate traditional crafts in Elders-in-Residence and Artists-in-Residence programs. The North Slope Borough owns and manages the IHC in affiliation with the National Park Service and in partnership with the New Bedford Whaling National Historical Park. The Center advances a mission to “to serve as an inspirational facility to promote and protect Iñupiaq culture, history, and language through exhibits, classes, performances, and educational activities.”¹⁶⁰

During May 2012, I enjoyed the opportunity to visit with carvers and etchers working in the traditional room of the IHC (Fig. 141). Each artist in the shop works consistently in one area and uses personal tools as well as large, communally owned power tools including a drill press and table saw (Fig. 142). The shop remains busy with

¹⁶⁰ <http://inupiaheritage.org/>

museum visitors who venture in to observe the carvers working or locals who stop in to visit, drop off baleen, and during one of my visits leave a group of freshly secured ducks. A congenial atmosphere pervades the room with carvers swapping stories or offering feedback on works-in-progress. William Simmonds (May 2012:5) explains that if he encounters difficulty working on bone masks, he will ask another mask maker for advice, “I would ask him, how could I correct this since you’ve been working on a lot of faces or different shapes. Sometimes he’ll give me advice or he’d say, maybe that’s the way it was meant to be. To me, if I start work on something, I just keep working on it. I won’t throw it away but I’ll still set it down and decide maybe I’ll use it for something else.”



Fig. 141. Perry Matumeak etching baleen inside the Traditional Room at the IHC. Barrow, AK. 2012. The large power tools and baleen plates are shared by local carvers.



Fig. 142. John Heffle sanding a whalebone drummer in the IHC. Barrow, AK. 2012.

Sulianich Art Gallery, Kotzebue, AK

The number of ivory and bone carvers in Kotzebue has increased over the past ten years, primarily from a growing population of young carvers, many who work at the local Sulianich Art Gallery (Fig. 143).¹⁶¹ The non-profit Sulianich Art Gallery opened in 2007 with a mission, “to provide a viable marketplace for local arts and crafts, as well as a safe

¹⁶¹ Personal communication with Vika Owens, March 31, 2012.

working environment for artists and carvers.” (Center for Economic Development 2008:1). The Gallery also provides workshops including fur-sewing classes led by store manager Vika Owens. The Gallery serves not only as a sales room but a center for learning and instruction. From the sales gallery, a door leads into the carver’s workshop framed by metal shelves holding bones and antler of varying degrees of dryness and age. Local hunters bring in the bones that are free for carvers to use. A metal filing cabinet has drawers for each of the carvers where they keep photographs for designs, extra tools, soapstone, etc. Around the room, each carver has a spot where he works and keeps his extra materials. A small room contains large power tools such as a drill press, table saw and belt sander and includes a door able to be closed for ventilation purposes. Carvers are free to come and go in the shop during normal gallery hours. Depending on who is working, the shop might be relatively quiet or filled with laughter. Enoch Evak (March 2012) enjoys turning on the radio while working on his baleen etchings. Levi Angutiqjuaq (March 2012) affirms that whenever he’s there, there will always be joking as he loves to talk and if he’s quiet something’s wrong (Fig. 144).

Carvers at Sulianich support each other by asking what they are working on, providing suggestions when asked or offering an encouraging word. Levi Angutigjuaq notes the stark difference between carving at his home of Ilgoolik in Nunavut and carving at Sulianich saying that in the former topics of conversation could include hunting and daily events but talking about your own or another person’s carving project was taboo, as people would think you were trying to steal ideas. However, at Sulianich everyone works on different projects with various materials so carvers continually talk about their work. Discussion also inspires creativity as noted by Angutigjuaq (March 2012:10) who shared

an exchange of ideas with Enoch Evak in which Angutigjuaq “can get his pictures, put it in the rock, and he can get my rocks into pictures. So it’s perfect trade.” Kevin Norton asked Vika Owens about his ivory knife and filing a baleen handle. While in Sulianich, Jon Ipalook (April 2012) demonstrated the use of a drill bow while younger carvers watched and asked him about materials and techniques.



Fig. 143. Jon Ipalook discusses his ivory necklace with Kenny Tikik while Emmanuel Hawley carves a whalebone mask. Sulianich Art Gallery, Kotzebue, AK. 2012.



Fig. 144. Levi Angutiqjuaq working on a project in the Sulianich Art Gallery. Kotzebue, AK. 2012.

King Island Carvers’ Workshop, Nome, AK

Located within the King Island community building, the carver’s workshop holds five cubby spaces for individual carvers (Fig. 145). Carvers store personal tools in each space but share a table vise, drill press, belt sander, electric buffer and table saw. Carvers may also share their personal tools such as Greg Muktoyuk who often lends his ring sizers to Matthew Tiulana. Like Sulianich Art Gallery, the radio typically floats sound through the noise of sawing and drilling. Older carvers frequently speak Iñupiaq and many carvers joke with each other, such as Matthew Tiulana (April 2012) who consistently asks his fellow workers, “almost done?” Unlike the IHC, carvers don’t offer

many suggestions or comments to each other about their projects. Sometimes carvers have a buyer lined up for a “special order” such as Matthew Tiulana who creates his frequently requested small ivory masks with appendages (Fig. 146). Other carvers may finish a project, rush it to a local gift store and soon return to carve something else. Most of the ivory carvers did not learn to carve while in the shop but learned at home or in the qagri. The carvers are free to pick from a box of scraps and odds and ends of whalebone. Ivory can also be bought from the King Island Community with most of the tusks deriving from St. Lawrence Islanders. Francis Alvanna (April 2012:2) comments on the similarity between the communal environment of the older King Island qagri and the contemporary workshop in Nome “Used to be go through here everybody carved, in one place, like they do in here.”



Fig. 145. The King Island carving shop includes individual work areas and shared power tools. From left: Jerome Saclamana, Matthew Tiulana and Greg Muktoyuk. Nome, AK. 2012.



Fig. 146. Matthew Tiulana carving a small ivory piece in the King Island carving shop. Nome, AK. 2012.

Friendship Center, Shishmaref, AK

During the late 1980s, Melvin Olanna worked to establish the Shishmaref Carving Workshop, an artists’ studio and workspace for carvers in the basement of the Lutheran

Church. Shortly thereafter the shop moved to a larger space and was renamed the Melvin Olanna Carving and Friendship Center. The space received funding from the State of Alaska, the Lutheran Church, private contributions and donations of artwork from local carvers (Fair 2006:18). The communal space featured power tools such as a band saw and drill press with several local artists agreeing to oversee the management of the workspace (Fosdick 1989). Local and visiting carvers were invited to use the shop. The center was conceived as a location for local artists to work on carving whalebone, ivory, etc. with shared use of the large power tools. The Center operated for several years until funding ran out as noted by Edwin Weyiouanna (June 2012).¹⁶² While in Shishmaref, the center remained locked and closed although power tools still appear through the windows. Several carvers reminisced on how nice it was to carve as a group back in the old days, talking and laughing together. Ricky Kuzuguk (June 2012) of Shishmaref comments that he and fellow carver Gary Sockpick used to work in the Friendship Center together and finish projects at the same time. When asked, if he would like to see the center back open, carver Gary Sockpick (June 2012) thought most people would probably continue to carve out of their homes because they had become accustomed to working at home. Several smaller family-centered carving areas currently exist in Shishmaref, including the front porch where Gary Sockpick and his son Brandon carve. Likewise, Roy Sockpick and his son Bert Sockpick use a detached room on their house as a family carving workshop.

¹⁶² Following the shut down of the Friendship Center as a carving center it functioned as a care center for young children before final closure.

CHAPTER 5

IVORY CARVING TOOLKITS AND BOW DRILLS

Creation of Ivory Carving Tools

Ivory carving toolkits represent carefully selected assemblages for splitting, shaping, polishing and engraving. Before the incorporation of manufactured tools and materials into carving assemblages, Bering Strait ivory carvers relied on surrounding natural resources to make or invent their own implements (Burch 2006; Larsen and Rainey 1948; LeMoine 1997). Ross Schaeffer (April 2012:9) expresses admiration for the practicality of past generations who constructed implements from local materials, “Dad and these guys...were real skilled, at making anything. And that’s just natural ability from thousands of years, we made tools.”

A contemporary practice involves the creation of handmade tools using a store bought blade or tip in conjunction with a handle carved from bone or ivory. Henry Koonook has carved handles for several of his tools including one used for etching and detail work with an ivory handle featuring a carved face on the end (Fig. 147). Koonook (April 2010:15) explains, “I like to put faces on some of my tools because they’re my ancestors and they help me with my work, I think.” Similarly, Ross Schaeffer (April 2012) typically uses purchased blades but carves many of his own handles from caribou antler preferring the smoothness of antler to the bluntness of plastic. Likewise, Jon Ipalook (April 2012:11-12) uses a number of carving tools constructed from metal blades and handmade handles stating, “I like making my own tools out a lot of different materials that I’ve collected . . . You can almost see the absorption of a lot of the oils from my fingers.” (Fig. 148)

When discussing practices of acquiring and sharing carving tools, Vince Pikonganna (April 2012:11) explained, “you just can’t outright go borrow somebody else’s tool because they may need it now, they may want to use it. First you get your own tools. You collect over the years, carving, or you make your own tools.” Pikonganna also states that when someone does borrow a tool, “they make sure they return it immediately when they’re done . . . If they break it, they fix it better than they got it earlier . . . And make sure that they tell the owner what happened. And once you return it, you know next time you need it, it will be there.” Joe Kunnuk (April 2012:5-6) remarks as a young carver his father selected the tools he could use, “My dad used to tell me not to touch his tools . . . He just gave me a file and whatever I wanted, whatever I have to use, when I carve. We listened to our people and what we [were] supposed to be doing.” Kunnuk encourages young carvers starting out to save their money and build up their toolkits.



Fig. 147. Handmade bow drill, adze and scribe with a carved face by Henry Koonook. Point Hope, AK. 2010.



Fig. 148. Handmade carving tools of Jon Ipalook. Kotzebue, AK. 2012.

Toolkits and Changes Over Time

In speaking of learning how to adapt to new tools, Ross Schaeffer Sr. (April 2012:15) expressed to young carver Emmanuel Hawley “You’ll get confidence when you

keep doing it. You'll get the confidence how to use other tools, how to use other pieces of bone, ivory. You'll get better as an artist." Examining carving toolkits within a broad trajectory of four phases can offer insight into technological continuity and disjuncture through periods of social transition (Table 3).

Ancient (400-900)

During occupational activity at ancient Old Bering Sea sites such as Ekven and Ipiutak ivory carvers used stone adze blades, side-hafted knives, scrapers and burins (Larsen and Rainey 1948). Drill bows are not present and engraving appears to have been done with ivory styluses fitted with bits of animal teeth or non-meteoritic iron obtained in trade from Siberia (Larsen and Rainey 1948:83). Slate is absent and deposits of flakes suggest heavy utilization of flint as noted by carver Art Oomittuk (April 2010) who believes microflints may have been used to engrave the delicate curvilinear designs.

Historic (1200-1890)

The historic phase is characterized by the introduction and gradual florescence of ivory and antler drill bows across the Bering Strait. Pictorial engraved drill bows were probably prevalent by the late eighteenth century as indicated by Cook who acquired drill bow 27.4.61/32 in 1778. Likewise, Beechey (1968:217) describes a developed practice of pictorial engraving in 1826 in describing drill bows with "a variety of figures of men, beasts, and birds, with a truth and character which showed the art to be common among them." The practice of storing carving tools in bentwood boxes and caribou hide satchels also appears during the historic phase and carries over into the modern period.

Modern (1890-1970)

During the modern phase, carvers gradually introduced manufactured items such as metal files and sandpaper into their toolkits following increased availability from traders and the establishment of shore-based whaling stations. Beginning in the 1890s, some carvers, such as Happy Jack, used fine needles and dentist tools to engrave scenes of high realism onto whole tusks (Ray 1969:21). Demand for tourist items flourished during this period and carvers found ingenious ways to speed up carving processes. For instance, carvers converted sewing machines into lathes for making beads (Kunnuk April 2012; Ray 1980:109) and used hand crank drills to create holes for ivory pipes (Ayek April 2012).

Contemporary (1970-present)

Within the contemporary phase, carvers have access to a wide range of tools and materials through the internet, catalogues, and home improvement stores. Utilizing electric-powered tools such as radial saws and Dremels eases the process of cutting and grinding dense ivory. Carvers often express a favorite go-to tool such as Jon Ipalook (April 2012: 2) who relies on his coping saw he describes as “something I’m able to get very detailed with.” When looking at a photograph of a carver from Little Diomedede using a drill bow, Enoch Evak (March 2012:4) recalled, “A lot of work them days, nowadays we use electric tools . . . Used to carve by hand until I discovered a Dremel.”

Traditional tools are still favored by some carvers such as Henry Koonook (April 2010:2) who shares, “My favorite tool is an adze. We know it as *ulimaun*. It’s a great tool because you can use it to carve wood. You can use it to carve bone. I use it when I carve driftwood masks or when I’m getting ready to carve on a tusk. I take that tool and take all

the top layer of the ivory off.” Likewise, Koonook (April 2010) and Art Oomittuk (April 2010) both expressed a desire to engrave scenes on their drill bows in a manner similar to engraved drill bows from the past. The presence of traditional tools within contemporary carvers’ toolkits suggests a socio-cultural significance to ivory production. For example, contemporary carvers could use electric drills rather than labor-intensive bow drills to shape ivory yet the practice of using bow drills continues.

Table 3. Historical changes in ivory carving toolkits. Source: Larsen and Rainey (1948); Murdoch (1892); Nelson (1983); Ray (1980); Ackerman (2009); Koonook (2010); Tiulana (2012).

Ancient (400-900)	Historic (1200-1890)	Modern (1890-1970)	Contemporary (1970-present)
Adze	Adze	Adze	Adze
Ivory engraving stylus	Bow drill	Bow drill	Bow drill
Flint	Flint	Burins	Burins
Flint flaker	Flint flaker	Dentist tools	Dremel, Foredom
Knife, side-hafted	Knife, composite	Knives, small or crooked	Knives, pocket
Red Ocher	Needles	Emery cloth	Buffer and buffing compound
Scraper	Red Ocher	Files, metal	Files, metal
	Chisel	Engravers	Engravers
	Scraper	Chisel	Chisel
		Red Ocher	Red Ocher
		India ink	India ink
		Pencil	Pencil
		Lathe	Markers, permanent
		Metal polish	Drill press
		Needles	Table saw
		Sandpaper	Needles
		Saw, hacksaw or coping	Sandpaper
		Table vise	Belt sander
		Thimble, bleached skin	Ring sizer
		Whetstone	Super glue
			Saw, hacksaw or coping
			Table vise
			Whetstone

Nineteenth Century Bow Drill Tool Complex

Perhaps no implement was more essential during the nineteenth century than a bow drill that functioned as a multi-purpose tool to bore holes and start fires. Inupiat and Yup'ik oral narratives describe the creation of drill bows through a process of trial and error and as a supernatural offering or lesson (Oquilluk 1973:27).¹⁶³ In 1880, Edward Nelson area recorded a legend from the Yukon-Kuskokwim area describing how Raven introduced bow drills to men:¹⁶⁴

Here the R. [Raven] stopped and spent considerable time in teaching the men various things, among others how to make a fire with a drill and piece of wood, with a cord to make drill revolve... They were now taught to make a fire with drill and to place the burning spark or timber in a bunch of dry grass and wave it back and fro to make a blaze and to put upon this dry wood. (SIA, *Nelson Journals*, December 26, 1880).

During prevalent use of drill bows through the late nineteenth to early twentieth century, an ivory carver's toolkit remained relatively consistent (Table 4). Essential tools were often kept in a wooden toolbox or caribou hide satchel and included an adze (*kiyuun*), flint, flint flaker, knife (*piksiuun*), scraper and a bow drill, which consists of three parts including the bow (*pitiksiiq*), a mouthpiece (*kigmiaq*), and a drill (*niuun*). Vince Pikonganna (April 2012:8) expresses admiration for the intricate carvings made by past generations with limited tools, "I don't know how they carve in those days, with the

¹⁶³ Bow drills also appear to have held unique power as described by Stefansson (1914:353-54) who recounts a "taboo" involving the use of a bow drill that followed the killing of a bear in which a bearskin was hung, often by harpoon line made from beluga skin, by its nose from the window. If a male bear, a bow drill was hung between the bear's nose and window casement. After hanging in the house for about 24 hours, the hunter's wife removed the bow drill and used it like a hammer to beat the walls of the house from door to door. The bow drill then became the property of the bears.

¹⁶⁴ From the "Legend of the Creation by by *Tu lu káu guk* (the Raven)." SIA, *Nelson Journals*, December 26, 1880. Nelson recorded this legend from a "Kegikowik Inuit" near Anvik. The storyteller told Nelson few people knew the creation story as he himself heard it as a young boy from an old man.

tools that they had, very limited tools. But they were making some of the most beautiful items I've ever seen in my life.”

Table 4. Hand tools and materials used to carve ivory during the late nineteenth to early twentieth century. During community work in April 2012, James Omiak, Vince Pikonganna and Matthew Tiulana provided many of the Iñupiaq names for tools.

<i>aġra</i>	ash used for engraving fill
<i>agiaq</i>	flat file
<i>aglaun</i>	pencil
<i>ayupat</i>	toolbox
<i>isignaġ</i>	jade used as a drill bit or carved into a socket for a mouthpiece
<i>ivalu</i>	thread, sinew
<i>ivuqsuġ</i>	red ocher
<i>kaksaun</i>	sandpaper
<i>kayuun</i>	small adze
<i>kigmiaq</i>	mouthpiece to use with a drill bow (King Island)
<i>kigqa</i>	small walrus tooth
<i>kiggitiit</i>	vise
<i>kikiak</i>	nail
<i>kiliġvak</i>	mastodon ivory
<i>kiliquan</i>	any tool that scrapes, like a knife
<i>niuqtuun</i>	drill bow (Barrow, Point Hope, Kotzebue)
<i>niuun</i>	wood drill
<i>niuutiit</i>	wood drills with varied bits
<i>paula</i>	soot used for engraving fill
<i>piksiuun</i>	engraver with a hooked tip
<i>piññuqtaq</i>	pocket knife
<i>pitiksiaaq</i>	drill bow (King Island)
<i>qaiññiq</i>	old walrus ivory; piece of ivory washed up on shore
<i>sanuġa</i>	crooked knife
<i>satquaġ</i>	drill bow (Little Diomede)
<i>sauniq</i>	bone
<i>siññiñ</i>	whetstone, knife sharpener
<i>suñauraq</i>	beads
<i>suqqaġ</i>	baleen
<i>tinuqituun</i>	chisel
<i>tivraq</i>	driftwood to carve into a drill
<i>tuniqtaq</i>	soapstone that is carved or used as a socket for a mouthpiece
<i>tuuġaaġ</i>	new walrus ivory
<i>tuulingitut</i>	round file
<i>ugruk</i>	bearded seal hide often used for a drill bow strap
<i>ulimaun</i>	adze
<i>uluginauyuġ</i>	coping saw
<i>uluqaqtuun</i>	large hand saw
<i>uyaġak</i>	stone or rock used as a socket for a mouthpiece

Toolboxes

A bow drill, adze, flint, knife and scraper formed essential components of a carver's toolkit and when not in use a carver often stored them in a wooden toolbox or hide satchel. George Byron Gordon provides a detailed glimpse into the contents of a man's wooden toolbox at the turn of the twentieth century:

Each man has his workbox, an oblong or oval box averaging about a foot in length and sometimes very tastefully inlaid with ivory and with a lid that is kept in place by rawhide hinges and a lashing of rawhide that slips over an ivory catch in front. In this box will always be found the man's knife, formerly made of jade or flint but now almost invariably made of a bit of iron fastened to a handle of bone. The shape is always the same – a short curved blade on a long handle. In the box will also be found a bow drill in three parts, a scraper, a flint chipper, a few pieces of graphite for marking, a whetstone, a pair of wooden goggles to protect the eyes from glare of the sun on the ice in the spring, a tobacco box and various miscellaneous articles. (Gordon 1917:222)

Beechey (1968:393) provides one of the earliest descriptions of a "tool-chest," used by a summer resident to Chamisso Island who placed the box under an upturned umiaq along with his nets and fishing gear.¹⁶⁵ Summer travel involved a premium on space and taking along a toolbox suggests the import of these items and probably made it difficult for collectors to convince carvers to part with their toolboxes (Gunther 1976:145).

Nelson acquired a variety of men's wood toolboxes but they derive mostly from Central Yup'ik villages with zoomorphic carvings and interiors painted with elaborate scenes (Nelson 1983:93-98, Pl. XLII). In contrast, Murdoch and Ray managed to collect six wood toolboxes of a northern Iñupiat style characterized by a long, narrow bottom

¹⁶⁵ Officers of the HMS *Blossom* visited Chamisso Island on August 28, 1826 and came across a camp with four tents and several upturned skin boats returning to their winter village laden with dried fish, seal meat, oil and skins. Beechey (1968:393) notes the tool chest held a mastodon tooth indicating individuals carved and mended items during summer travel.

carved from a single piece of pine or other wood, a lid attached with seal thread or braided sinew, and a wash of red ocher on the inside (Murdoch 1988:185-87).¹⁶⁶ In 1912, Vilhjalmur Stefansson obtained a similar carved wooden toolbox from Cape Smythe, which the seller described as having been in their family for five generations (Fig. 149).¹⁶⁷ During community work in Barrow, Whitlam Adams (May 2012) brought out his carved wooden toolbox with an ivory plaque inscribed with his Iñupiat name of *Anugi*.¹⁶⁸

Instead of hollowing out a chunk of wood, Iñupiat carvers from the Bering Strait Islands and Norton Sound appear to have favored bentwood toolboxes (*ayupat*) secured with ivory joints. One example collected by George T. Emmons from 1894 features an oval bentwood bottom with six ivory joints, wood and baleen stitching, and a horizontal rod in the center to brace the sides (Fig. 150). The carved wood lid has an engraved ivory handle with two scenes of hunting caribou, attached to the lid with bearded sealskin thong.

Another bentwood toolbox appears in a photograph taken around 1920 of King Islanders carving under an umiat on the beach at Nome (Fig. 151). The photo illustrates carvers using hand tools, including a drill bow, drill, mouthpiece, small knife and chisel, to create small animal carvings for tourists displayed on the toolbox lid. The photo of the

¹⁶⁶ Murdoch (1988:187-89) notes very few carvers in Point Hope and Cape Smythe still used wood toolboxes and instead stored their bow drills and other tools in satchels of hide, preferably of a wolverine head, carried with an ivory bag handle. Nelson (1983:93) also describes a widespread use of hide satchels for tool storage and collected multiple engraved ivory bag handles from Iñupiat villages including a handle engraved with 34 wolverine skins attached to a wolverine head satchel from Cape Darby (NMNH E48089).

¹⁶⁷ The exterior of lid AMNH 60.1/2897 includes an inlaid row of 17 blue beads of various color and size. The lid's interior depicts a scene of hunting caribou drawn in pencil by the seller's older brothers named Kapkanna and Tunak. Stefansson collected the box along with a short board illustrating pencil scenes of corralling caribou and hunting caribou in kayaq.

¹⁶⁸ Adams still uses his toolbox that nowadays holds different bits for his Foredom drill.

bentwood toolbox inspired comments by many carvers including James Omiak (April 2012) who recalled seeing bentwood boxes holding ivory jewelry when growing up on Little Diomed. Likewise, several elder King Island carvers likened the toolbox to those they saw older carvers using on King Island. Joe Kunnuk (April 2012) stores carving tools in a wooden toolbox handmade by his grandfather, inscribed with his grandfather's name and a record of how many seals he caught. Contemporary admiration for older handmade toolboxes and the preservation of family toolboxes reveals the containers' significance as a symbol of cultural and personal identity related to being a carver.



Fig. 149. Carved wood toolbox from Cape Smythe. Lid: L 48, W 10.3, D 9.1 cm; Bottom: L 48.3, W 10.2, D 9 cm. AMNH 60.1/2897.

Fig. 150. Bentwood toolbox with engraved ivory handle. L 28.5, W 14.5, H 16.5 cm. AMNH 0/484.



Fig. 151. Ivory carvers from King Island working under an umiaq on the beach at Nome. In 2012, King Islanders identified the men as (from left): Charles Mayac, Louis Seeganna, Edward Penatac, Sylvester Ayek's father, and an unknown man on the right. Photograph by Steve McCutcheon, c. 1940. Anchorage Museum at Rasmuson Center, AMRC-B1990-014-5-AKNative-2-1.

Bow Drills

Bow drills consist of three essential components: a drill bow, drill and mouthpiece. Drill bows are typically made from split walrus ivory or caribou antler. Most bows are strung with a strip of bearded sealskin for wrapping around a wooden drill with a flattened iron nail tip wedged into the base. The upper drill end nestles into the socket of a wood mouthpiece that is gripped between the teeth and propelled by the bow. Drill bows can be used to start fires, bore holes and engrave designs on natural materials.

Drill bow carvers typically owned several wood drills with varied bits for different activities and etchings (Fig. 152). Contemporary carvers recall using drill bows such as James Omiak (April 2012) who used a bow drill to create ivory bracelets with intricately carved animals. Likewise, Francis Alvanna (April 2012) has made a drill bow from caribou antler and Henry Koonook (April 2010) continues to use his caribou antler drill bow for various carving projects and to start fires at camp (Fig. 153).

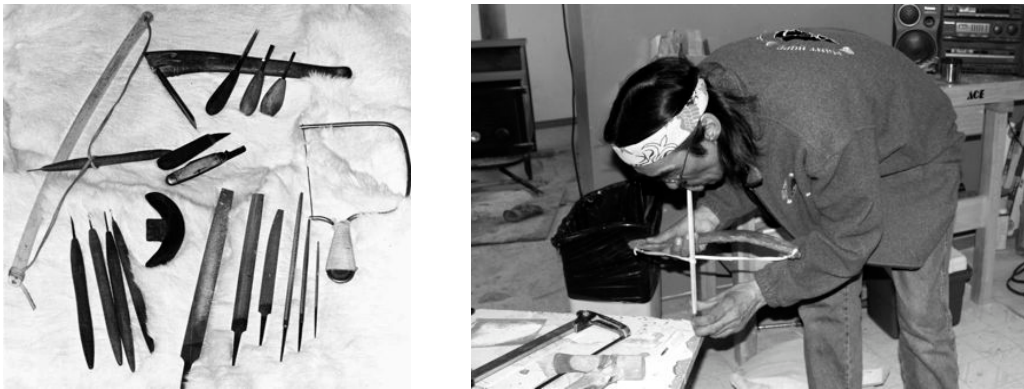


Fig. 152. Tools of King Island ivory carver Peter Mayac including a drill bow, mouthpiece and wood drills with different bits. Other tools include an adze, files, chisels, short knives, and a coping saw. Photograph by Donald Burrus, 1955. Alaska State Library, Historical Collection, ASL-P466-02-093.

Fig. 153. Henry Koonook demonstrating his bow drill. Point Hope, AK. 2010.

Ivory Drill Bow

When investigating the creation of an ivory drill bow, it is useful to conceptualize the sequential chain, or *chaîne opératoire*, through which a raw ivory tusk proceeds before it reaches the stage of manufactured product (van der Leeuw 1993:239-40) (Table 5). As the ivory passes through each operation, causal factors along the behavioral chain, such as carving knowledge and performance feedback, can interact with situational factors including artistic skill, technique and technological constraints, and impact the outcome of a final drill bow (Schiffer and Skibo 1997). Analytical focus on task differentiation dimensions, such as setting, social unit, time and materials, can also reveal insight into a carver's potential technical choices and activities (Jarvenpa and Brumbach 1995:52-55). Skibo (2009:42) also argues for the addition of behavioral processes to an understanding of how objects move beyond manufacture through activities of use and reuse to disposal and deposition.

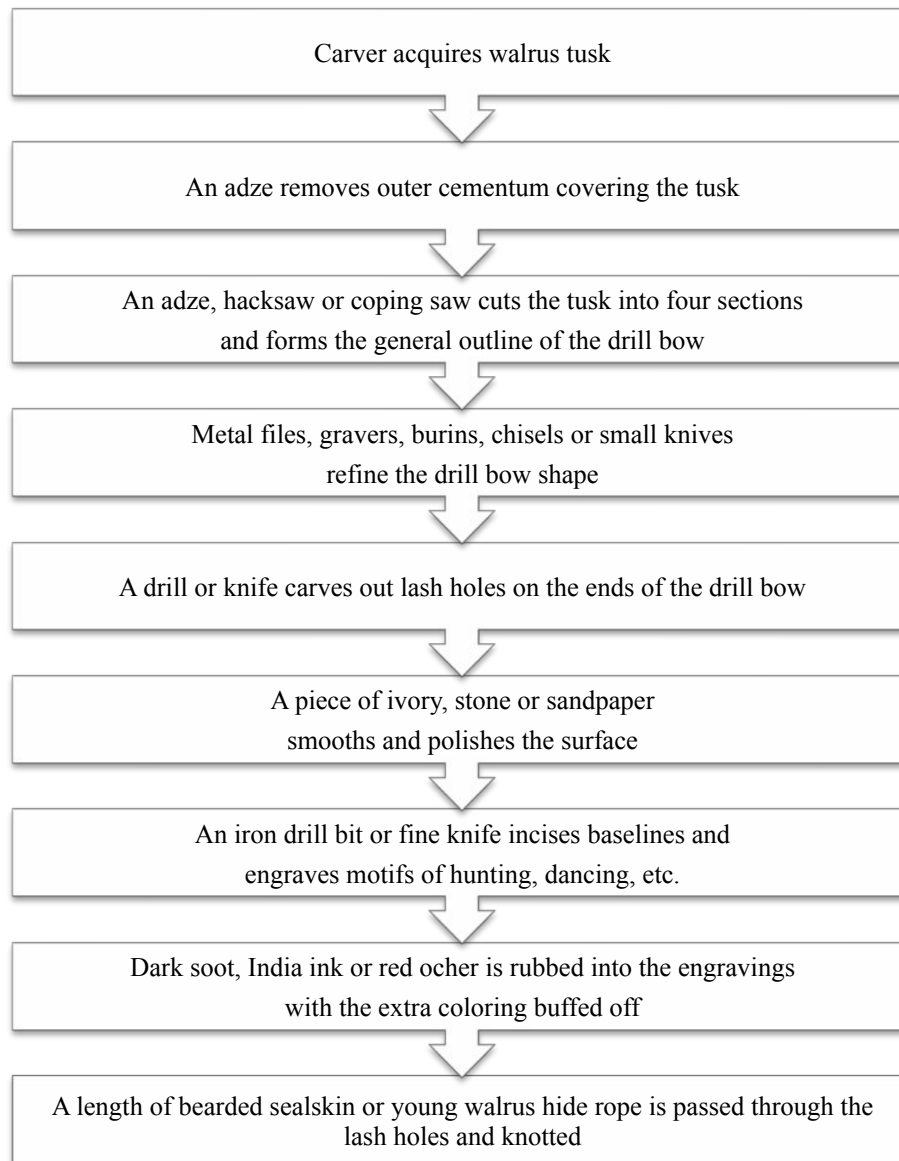
In the past, initial preparation of the tusk, involved a period of soaking in liquid. For example, Nelson (1983:196) explains, "Before working bone, deerhorn, or ivory, it is the custom to soak the material thoroughly in urine in order to soften it, and indeed it is frequently wetted with the same liquid as the work progresses." Likewise, in 2003, Yup'ik elder Frank Andrew emphasized the importance of working wet ivory, "Apparently when ivory is immersed in water, it is easier to work on. But when they let it dry out, the inside of the ivory will develop cracks. Even though the surface looks good, it can no longer be used." (Fienup-Riordan 2007:69). Discussion with carvers in Point Hope reveals that soaking a tusk is not always a prerequisite to carving. For example, Henry Koonook (April 2010) uses his adze to take off outer cementum covering a dry

tusk before incising and splitting the tusk. In a letter to Walter Hoffman, Lucien Turner delineates a mid to late nineteenth century process to create ivory drill bows:

The tusk selected was rudely scratched with a fragment of quartz, or other siliceous stone, along the length of the tusk until the sharp edge would no longer deepen the groove; the other three sides were scratched or channeled until the pieces of tusk could be separated. Sometimes this was done by pressure of the hand, or effected by means of a knife blade-shaped piece of wood, on which was struck a sharp blow, and so skillfully dealt as not to shatter or fracture the piece intended for use. The other side, or slabs, were removed in a similar manner . . . The final smoothing of the surface of the ivory piece was effected by rubbing it against a fine-grained stone or in the hand where fine sand was held; lastly two pieces of ivory were rubbed against each other and thus a polished surface produced . . . In later years files and saws were used to cut the ivory into the required shape. (Hoffman 1897:774-75)

Final drill bow length can be considered highly variable due to range of walrus tusk length or amount of ivory available to a carver. Drill bow length can also be based on individual carver characteristics, for instance arm length or shoulder width. However, close comparison of drill bows in museum collections resulted in the determination of certain regional variations or traditions. For instance, the majority of carvers from Little Diomedes appear to have favored drill bows of shorter length and rectangular form with squared edges. In contrast, carvers from Point Hope favored longer bows of a cylindrical shape. Carvers may have decided to have a flat, cylindrical, triangular or rectangular bow based on the style of their father's drill bow or practice of their village. Other carvers might have opted to carve three or four-sided drill bows to make the most available use of space for etching scenes.

Table 5. A typical *chaîne opératoire* involved in creating a late nineteenth century engraved ivory drill bow. Source: Hoffman (1897); Ray (1980); Ipalook (2012).



Lash Holes

Engraved ivory drill bows typically include a single lash hole at each end or a single lash hole on the upper side and two corresponding holes on the lower side.¹⁶⁹

¹⁶⁹ In contrast, ivory bag handles typically feature paired lash holes at the ends. A few drill bows in the study group include double openings suggesting original roles as bag handles but multiple engraved sides indicate subsequent use as drill bows.

Within the study group of 286 drill bows, most lash holes appear circular with smooth edges and interiors indicating boring with a drill rather than a knife. A few drill bows feature elliptical lash holes or carved rectangular slits. Regardless of shape, lash holes needed to be large enough for a sealskin strap to pass through but narrow enough to keep the strap from slipping. Lucien Turner provides insight into the creation of lash holes on drill bows in Norton Sound:

The holes or perforations in the ends were produced by means of stone drills after a depression had been made by an angular piece of stone, any stone capable of wearing away the ivory substance. A few grains of sand were put into the shallow cavity and the stone drill started by means of another drill or by a string or thong similar to the manner in making fire . . . In later years . . . pieces of steel were used to make the holes. Often a three-cornered file was the instrument used to make the holes. (Hoffman 1897:774-75)

As noted by Turner, the majority of nineteenth century carvers probably used iron bits fashioned from nails or files to bore lash holes for drill bows. Carvers typically drilled out the requisite holes before adding motifs as indicated by the majority of engraved scenes that stop short of the holes or incorporate the negative space as part of the overall design. Two drill bows (NMNH E24552 and E24538) attributed to Pastolik include incised lines around the lash holes while barbed lines encircle holes on drill bow PHMA 2-4124 and drill bow NMNH E44398 depicts figural motifs wrapped around the circular openings. As a result of heavy use wear, lash holes grow thin at the exterior edges and commonly break off leaving a perforated opening. When this occurred, carvers typically added a secondary set of lash holes further in on the drill bow. Approximately two-thirds of the examined drill bows include secondary lash holes indicated by the presence of stripped exterior holes and openings that cut through the centers of engraved motifs.

Hide Straps

During the nineteenth century, Iñupiat peoples utilized thong of bearded sealskin or walrus hide for seemingly unending purposes including: harness for dog sleds, reindeer traces, line for sealskin floats, thread for bone armor, hook lines for seal nets, drag lines for killed seals, cords for masks, ties to fasten together two sides of a wooden pipe, and straps for drill bows (Ray 1885; Thornton 1931; Oquilluk 1973; Seveck 1978; Maguire 1988; Murdoch 1988). Bearded seals appear to have been a favored animal for making hide thong or rope as noted in a Chukchi tale in which a strong man in a kayaq hurls bearded seals identified as “thong seals” onto the shore (Bogoras 1975:66).¹⁷⁰

In Iñupiat history, William Oquilluk (1973:29) explains that after the first great disaster of an earthquake, male friends Ekeuhnick and Seelameu discovered how to make hide thong by cutting, “round and round an animal skin to have one long single piece of skin. Sometimes the string was not strong enough to do what they wanted it to. They tried twisting and braiding strips of skin together...Soon [they] could make ropes, thongs, and strings to do many different jobs.” Based on his observations between 1842-60, Golovin produced a diagram to cut bearded seal or walrus thong similar to Oquilluk’s description of making radiating cuts around an animal (Fig. 154). Over a hundred years later, the cutting process remains very much the same as seen in a photo of Vernon Slwooko of Gambell carefully skinning a two-year old walrus for rope (Fig. 155). Turning freshly cut sealskin into dried thong requires a unique skill and certain men earned a reputation for

¹⁷⁰ From, “The Adventures of the Brothers” told by Rike’wgi, a Maritime Chukchee man at Mariinsky Post, Chukotka in October 1900.

making excellent rope and might work on it during long nights in the qagri (Hooper 1853:56; Thornton 1931:110).

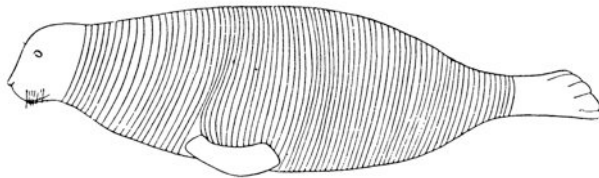


Fig. 154. "Diagram for cutting seal and walrus pelts into thongs." (from Golovin 1979:81).



Fig. 155. Vernon Slwooko skinning a two-year old walrus for making rope. Gambell, St. Lawrence Island. Photograph by Steve McCutcheon, May 1960. Anchorage Museum at Rasmuson Center, AMRC-B1990-014-5-AKNative-4-63.

The study group included 117 engraved ivory drill bows with complete or partial original hide straps. Only four bows include straps made from braided caribou sinew. Two straps appear to be from commercially tanned leather and probably represent a replacement post-collection. Almost four-fifths of the original hide straps appear to be made from bearded sealskin with a few straps retaining coarse hair on the outer skin. Heavily used straps typically show wear in the center and about one-third in from the ends due to being wrapped around a wood drill. Carvers working in the early twentieth century Nome engraving style often attached old hide straps or rope to newly made drill bows for sale. Jon Ipalook (April 2012) demonstrated a similar practicality and cut up an old mukluk sole of bearded sealskin to create a drill bow strap.

The majority of drill bows in the study group include a strap looped through one hole, then passed through a cut slit, extended along the bow, passed through the other

hole, and knotted at the end. Splicing or cutting one end of the strap probably allowed the carver to tighten the strap or move it to a new position if an area became too worn out. A few drill bows reveal that carvers also extended the life of their straps by knotting together broken ends or adding a new length of hide to the original strap.

Murdoch (1988:175-76) notes that carvers in Point Barrow typically used drill bow straps 21 inches long with enough give in the center to make a single rotation around a wood drill. Several drill bows in the study group include an additional length of sealskin hide wrapped around the end or knotted in a bundle (Fig. 156). The extra hide suggests a worn portion of a strap could be pulled through the opposite lash hole and a new area supplied. The additional length could also provide a carver more freedom to tighten or loosen the strap when using drills of different widths. James Omiak (April 2012) recalls using bleached sealskin straps for his drill bow that turned supple upon use. Thus, although drill bow straps in museum collections appear hard and brittle, the hide was originally soft and pliable allowing a user to easily manipulate a wood drill.



Fig. 156. Engraved ivory drill bow with a supplementary length of bearded sealskin. Collected by Edward Nelson from the Diomedede Islands. NMNH E63622.

Blue Beads

Circulation of blue beads across the Bering Strait represented a valuable enterprise for Arctic peoples and Western explorers of the twentieth century. British and American blue glass beads, known as *suṅaaraveak*, came in various sizes with strings of

beads commonly worn across the chest, forehead, ears and sewn onto clothing (Spencer 1969:156; Brower 1994:32, Thornton 1931:31). Russian glass beads, known as *ilyuunminik*, appeared dark, dull blue or green, sometimes with a white center, and held the greatest value (Spencer 1969:156). Chukchi traders from southern Siberia brought some of the first Russian beads to America that northern Iñupiat men commonly wore inset into ivory labrets or strung across the forehead (Fig. 157) (Kotzebue 1967:175; Beechey 1968:343; Maguire 1988:119).¹⁷¹ The allure of Russian beads even drew some Alaskan men across the Strait in hopes of trading animal skins for beads to use as engagement gifts (Oquilluk 1973:9).¹⁷² Blue beads represented wealth and often an elite status as told in “The Orphan Boy” in which the chief of Shishmaref vows to kill a young boy after he accidentally breaks a string of beads belonging to his daughter (Riggs 1923).¹⁷³

By the time Western explorers reached northern waters, they discovered an already strong and complex trade network of blue beads. In 1849, the HMS *Plover* anchored off of Point Hope at which time Rochfort Maguire (1988:27-28) describes locals boarded the ship and “disposed of every article they had, the women selling their fur dresses, even to their second pair of breeches, for tobacco and beads.” Museum

¹⁷¹ Kotzebue (1967:209) notes that labrets with blue beads worn by men in Kotzebue Sound were similar to those worn by Native men in Siberia. Kotzebue (1967:246) also remarks that Natives in East Cape, Siberia wear smaller blue beads but not as labrets. Adelbert Chamisso traveling on the *Rurik* with Kotzebue, stated that on St. Lawrence Island, labrets or “mouth buttons” were rare and instead men often sported tattoo lines on their chins (Chamisso 1986:172).

¹⁷² During the late 1880s, Charles Brower (1994:32-33) recounts a poor man arriving at Nuvuk from Icy Cape with one turquoise bead to trade and returned home laden with a new sled, ten plates of baleen, five cross fox skins and one silver fox skin, which he valued at over one thousand dollars.

¹⁷³ Edward Nelson describes a tale of blue beads from Sledge Island in which an ill-used wife collects a great number of blue beads upon the beach that eventually provide economic support for her son when he grows to adulthood. SIA, *Nelson Journals*, January 23, 1880.

collectors quickly learned to stock their trade bags with beads as seen at Kushunuk in 1878 where Edward Nelson states he purchased a large collection and fine ivory carving, “at what to a white man seems ridiculously small prices, a half dozen gun caps, a few matches, beads, or three or four needles purchasing a beautiful ivory carving on which a great deal of labor must have been spent.”¹⁷⁴ Frederick Beechey (1968:408) describes an early nineteenth century indigenization process in which the owner of recently acquired strings of blue beads, brooches, and cutlery dipped the trade items into a stone vessel filled with seal oil to prepare them for use.

Nineteenth century trade beads continue to hold cultural and historical value for Alaska Native community members and artists. In St. Michael, Bernadette Joe avidly recalled the time her sister went beachcombing and found a string of Russian glass beads that were red and brown with white centers.¹⁷⁵ Likewise, Glenn Ipalook (May 2012) of Barrow describes finding trade beads in old sod houses and wears a necklace with the blue and red glass beads he has discovered. Ipalook also incorporates modern beads into his carved baleen feathers in reference to historical trade beads from Point Barrow (Fig. 158).

¹⁷⁴ SIA, *Nelson Journals*, December 17, 1878.

¹⁷⁵ Personal communication with author. May 2, 2012.



Fig. 157. “Hommes du Golfe du Kotzebue.” Watercolor on paper by Louis Choris. H 14.5, L 19.1 cm. Courtesy Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, WA MSS S-260, object id WA MSS S-260. The painting depicts three men Otto von Kotzebue encountered during 1816 wearing large blue glass beads inset into ivory labrets and strung across the forehead.

Fig. 158. Glenn Ipalook with his baleen boats and beaded jewelry for sale. Barrow, AK. 2012.

The value imbued on blue beads appears on three engraved drill bows that feature blue beads inset into carved depressions possibly adhered with seal blood (Simpson 1969:156). Captain James Cook acquired the earliest drill bow (27.4.61/32) with a carved caribou head and two circular turquoise beads inset into rectangular slots (see Ch. 6, Fig. 250). Frederick W. Beechey collected the next ivory drill bow (Am1983.27.1) which retains two turquoise beads inlaid into irregular hollows encircled by incised lines (Fig. 159). Beechey’s bow features an additional thirteen hollows suggesting a once estimable row of beads. Lastly, Edward Nelson obtained an antler drill bow (E63805) from Point Hope with a carved caribou head and one small turquoise bead pressed into an oval eye socket (see Ch. 6, Fig. 251). Similarities between the carved caribou heads and engraving styles suggest all three drill bows probably originated in northern waters around Point Hope and East Cape.

In addition to the drill bows, three examined wood mouthpieces with stone sockets also feature blue beads. From the Diomed Islands, Nelson collected a deeply curved mouthpiece (E63720) with a raised ridge and five large blue glass beads inset on the lower side (Fig. 160).¹⁷⁶ Nelson also obtained a mouthpiece (E44566) from Cape Nome with two carved polar bear heads that retain three small turquoise beads in circular eye sockets. Miner Bruce acquired a composite mouthpiece (60/1240) at Port Clarence with two carved polar bear heads and four small dark blue beads inlaid into circular eye sockets (Fig. 161). The Port Clarence mouthpiece also includes four rectangular squares of engraved ivory nailed to the upper and lower sides that might have been repurposed from a bag handle. The inclusion of costly blue beads into drill bows and accompanying mouthpieces reflects the importance of these tools to carvers. Likewise, incorporating beads into everyday tools could have symbolized an owner's affluence and, within a group work setting such as the qagri, visually communicated prestige to other carvers.

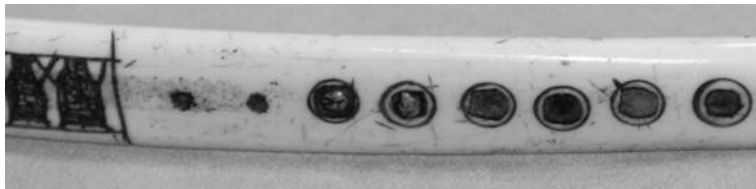


Fig. 159. Blue beads inset into ivory drill bow BM Am1983.27.1.



¹⁷⁶ Mouthpiece E63720 includes a square stone socket in the center of the lower side. A circular depression with burn marks appears next to the stone socket suggesting a secondary socket and frequent use by the owner.

Fig. 160. Wood mouthpiece with blue beads and stone socket. L 10.7, H 6.15, W 4.5 cm. Collected by Edward Nelson from the Diomed Islands. NMNH E63720.

Fig. 161. Wood mouthpiece with blue beads, engraved ivory pieces, and stone socket. L 18, W 3.3, H 3.6 cm. Collected by Miner Bruce from Port Clarence. AMNH 60/1240.

Mouthpieces

By the early nineteenth century, wood mouthpieces with inset stone sockets dominated carvers' toolkits within the Western Arctic. Crewmembers on the HMS *Blossom* obtained at least three wood mouthpieces including an example collected by Edward Belcher of an elliptical wood mouthpiece with raised sides, wide lash holes and mottled stone socket (Fig. 162).¹⁷⁷ Carvers use mouthpieces by biting the projecting block and pressing down on a wooden drill as it rotates (Fig. 163). This leaves one's hands free to work the drill bow and manipulate the object being carved (Fig. 164).

Murdoch (1988:177) provides insight into the construction of mouthpieces from Point Barrow: "The mouthpiece consists of a block of hard stone (rarely iron), in which is hollowed out a round cup-like socket, large enough to receive the tip of the drill shaft, imbedded in a block of wood of a suitable size to hold between the teeth. This block often has curved flanges on each side which rest against the cheeks." The majority of mouthpieces examined in collections appear to be lightweight driftwood of probably spruce or pine but nineteenth century carvers also took advantage of other materials such as oak from visiting ships.¹⁷⁸ Francis Alvanna (April 2012) from King Island expresses a similar resourcefulness in his description of carving a mouthpiece from an old hickory

¹⁷⁷ The Pitt Rivers Museum holds two wood mouthpieces collected by Frederick Beechey, 1886.1.698 and 1886.1.699, the latter with carved seal heads on the ends.

¹⁷⁸ Murdoch (1988:177) states carvers use pine, spruce or oak for mouthpieces and notes that one mouthpiece of oak might have been repurposed from wood of the HMS Plover, which visited Barrow between 1848-49.

pick handle. Carvers need strong neck muscles to grasp a mouthpiece for extended periods of time. Vince Pikonganna (April 2012) recalls observing his father drill hundreds of holes for ivory cribbage boards and developing a strong neck and jaw from constantly gripping the mouthpiece (Fig. 165).¹⁷⁹



Fig. 162. Wood mouthpiece with mottled stone socket. L 11.9, W 4.45, H 4.7 cm. Collected by Edward Belcher aboard the HMS *Blossom* 1826-27. BM Am.8208.

Fig. 163. Wood drill with bone, sinew and iron nail bit. L 22.7, W 2.2 cm. PENN NA4488.



Fig. 164. “Eskimo Making a Crib Board, Nome, Alaska.” Photograph by Otto Daniel Goetze, 1908. Anchorage Museum at Rasmuson Center, AMRC-b01-41-02.

Fig. 165. King Island carver Aloysius Pikonganna, father of Vince Pikonganna, gripping a wood mouthpiece used with his bow drill to create holes on an engraved ivory cribbage board. Photographic still from the video AAF 8600, Pioneer Pete Collection, Color/Silent, 1958-1961.

¹⁷⁹ Pikonganna notes he tried using a drill bow in the past but lacked the requisite neck muscles and instead relies on a Foredom drill.

Mouthpieces with heavy use wear have deep indentations or splintering in the block and darkening to the upper surface area from moisture in the mouth. Of the 33 mouthpieces examined for this project, twenty-four include inset stone sockets of circular, elliptical, square or rectangular form.¹⁸⁰ Approximately half the stone sockets appear flush against the lower surface while the remainder display varying degrees of protrusion. In addition to stone sockets, two mouthpieces include ivory sockets and three comprise sockets of iron and copper.¹⁸¹ Five mouthpieces include secondary depressions next to stone sockets indicating that once a socket became worn out, a carver moved the drill to a new area to prolong the life of the mouthpiece. All three mouthpieces firmly attributed to Little Diomedé include square stone sockets suggesting a regional characteristic but delineation of additional socket traits requires further research with a larger study group.¹⁸²

Edwin Weyiouanna (June 2012) remarks that each drill bow carver in the past owned his own mouthpiece with a particular design. Decorative traits on mouthpieces tend to be sculptural but a few examples incorporate blue beads, ivory pieces or the application of red ocher. Eight of the examined mouthpieces include carved animal heads on the flanges including seals, polar bears and one example of a carved polar bear and

¹⁸⁰ Murdoch (1988:178) describes the stone sockets as “gray porphyry” and “black and white syenite.” In addition to igneous rock, the stones appear to include jade, soapstone, and one example of red jasper.

¹⁸¹ Four of the examined mouthpieces did not include any type of inset socket. Jerome Saclamana (April 2012) states his father’s wood mouthpiece had a copper socket, indicating a continued use of metal sockets through the late-twentieth century.

¹⁸² The three mouthpieces attributed to Little Diomedé include: NMNH E63720, NMAI 94635, and ASM II-A-6577.

raven head on a mouthpiece collected by Edward Nelson at Cape Prince of Wales (Fig. 166).

Like drill bows, mouthpieces represented a personal and sometimes emotionally imbued possession of a carver. James Omiak (April 2012) recalls an older man on Little Diomedes carving a mouthpiece with a stone socket for James' brother in the 1940s. After his brother stopped carving, the mouthpiece passed to Omiak who subsequently used it for many years to make carved ivory animal bracelets. Similarly, Sylvester Ayek (April 2012) shares that he treasures his father's mouthpiece as the one remaining tool that belonged to his father.



Fig. 166. Wood mouthpiece with carved seal and raven heads. L 13.9, H 4.9, W 4.1 cm. Collected by Edward Nelson from Cape Prince of Wales. NMNH E48170.

Drills

Engraving styluses or shafts of ivory appear to have been the favored medium of carvers from the Old Bering Sea, Ipiutak and Punuk cultures of the Bering Strait (Ackerman 2009; Larsen and Rainey 1948; Larsen 2001).¹⁸³ During the Thule culture, wood drills predominated and carvers utilized the drills to create holes, sockets, and carve out interiors of bone, ivory, antler and wood.¹⁸⁴ Carvers used a wide variety of drill bits

¹⁸³ See Chapter 6 for further discussion on ancient ivory styluses.

including iron (Bogoras 1904:211; Murdoch 1988:175; Nelson 1983:81; Stefansson 1914:102), bone, antler or ivory (Ford 1959:174; Jacobsen 1977:119; Murdoch 1988:179) chert, jade and other stone (Ford 1959:175; Mathiassen 1927:58, Nelson 1983:81-82), and occasionally copper (Stefansson 1914:102).¹⁸⁵ Drill bow toolkits usually comprised multiple drills as noted by Stanley Tocktoo (June 2012) who recalls his grandfather using a wood drill bow along with wood drills and different sizes of bits. Variation in bit size and shape can produce different results on the material being carved. Jack Frankson Sr. (March 2012) of Kotzebue provides a contemporary example explaining that when using a Dremel tool, he prefers a tapered engraving cutter for shaping ivory, and needle bits for drilling holes.

Carvers gathered spruce and pine driftwood scattered along the coast to shape slender drill shafts and insert bits into the ends secured with bearded sealskin thong or caribou sinew. A finished drill fits into the socket of a mouthpiece with the point of the drill pressed down against the object to be carved leaving the hands free to work the drill bow and turn the object (Fig. 167). Sylvester Ayek (April 2012) explains a drill bow and drill can quickly produce holes in ivory if the bit is kept sharp and recalls King Islanders frequently using drill bows to bore holes for salt and pepper shakers. Likewise, Kenny Tikik (March 2012) recollects hearing about the speed and accuracy of wood drills inset with three-sided nail bits.

¹⁸⁴ Two carvers often used a large drill rotated with a cord or strap for heavy projects such as boring holes in wood frames for an umiak or kayaq. In contrast, a single carver typically used a drill bow for smaller projects, accompanied by smaller drills with fine bits (Nelson 1983:81).

¹⁸⁵ Based on experiments with a bone drill bow and wood drill, Lemoine (1997:27-28) discovered iron, copper, slate and chert drill bits readily drill through wet antler.

During the course of this project, I examined 31 wood drills from Alaska (28), Canada (2), and Siberia (1) in museum collections. The drills range in length from 10.8 to 47.6 cm with approximately two-thirds of the drills averaging 20-30 cm long. Drills with heavy use wear appear darkened or stained at the upper and lower ends with light centers where the drill bow strap has rubbed the wood smooth. A few drills lack any discoloration to the wood, indicating carvers made them to sell or trade.¹⁸⁶ The majority of wood drills lack decorative elements indicating an import on functionality over aestheticism. However, two drills (Am1890.0908.86, 88-51-10/50425) feature a series of thin incised lines, two drills (2-1291, E379801) include bands of red ocher, and drill 4501 has been embellished by a number of birds engraved on the ivory attachment (Fig. 168).

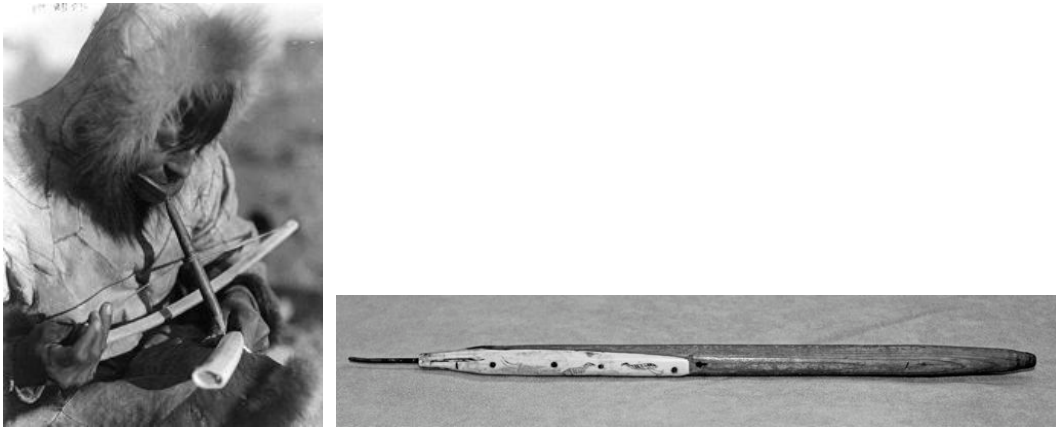


Fig. 167. “Drilling Ivory, King Island.” A King Island carver using an ivory drill bow to create holes for a cribbage board. Photograph by Edward Curtis (from Curtis 1930: facing page 110).

Fig. 168. Wood drill with iron nail bit and ivory attachment engraved with birds. L 26.2, W 1.4 cm. Collected with an engraved ivory drill bow and wood mouthpiece by Ellis Allen and E. M. Blackwell from Kotzebue Sound before 1913. Burke 4501.

¹⁸⁶ The three longest drills in the study group (SJ-II-P-13, 2-1291, E379801) show minimal use wear and lack drill bits or holes for bits indicating the drills were probably made for trade or sale. Likewise, collectors acquired each of the long drills as part of a “bow drill set” suggesting creation of the drills to fill out or complete the set. Finally, the drills’ long length would have made them unwieldy to use with a drill bow as the object would be far removed from an accompanying mouthpiece.

Twenty-two drills in the study group include bits filed from iron nails, four drills possess bits of a black argillite-like stone, three drills have no tips, one drill has a jade or serpentine tip and one drill includes a flint biface.¹⁸⁷ The twenty-two drills with iron bits feature round and square nails filed down to tips with two to four facets terminating in sharp points (Fig. 169). Iron nails on two drills, 98-18-10/52140 and 2-4115, have distinct stepped bases while 2-4115 also has a copper ring, possibly from a shotgun shell, to secure the nail to the wood shaft. Carvers probably did the initial filing and shaping of a drill bit before inserting or wedging the bit into the base of a wooden shaft. Several drills comprise narrow slats carved parallel to the base to help relieve pressure. Almost half the drills include bearded sealskin or caribou sinew lashing while drill NA4488 includes both sealskin and sinew to secure the nail and impede splitting. Instead of lashing, one drill (NA4488) (Fig. 163) uses a square chunk of ivory to create a strong base and three drills (Am1890.0908.87, 4501, 2-4103) include v-shaped pieces of bone and ivory interlocked with the shaft and nailed into place.¹⁸⁸ Lastly, drill NMAI 94635 from Little Diomedé includes a barrel-shaped ring on the top secured to the shaft with

¹⁸⁷ Four drills, 2-4113, 2-4114, 2-6746 and Am1982.Q.30, include polished black stone tips that appear to be of an argillite-like material. The wood shafts show minimal use wear with light soiling to the surface and shallow grooves around the tops from mouthpiece abrasion. In contrast to the wood, the stone tips appear unused with a chipped facet on 2-4114 suggesting a single attempt at usage. Collectors might have viewed the stone tips as aesthetic upgrades to rusty iron nails regardless of their efficacy to start fires or drill holes. For instance, drill Am1982.Q.30, appeared in Paris at the International Exhibition of 1867 for which the drill might have received a new stone bit before being put on display. Likewise, drill 86-35-364c includes a visibly unused green stone tip, inserted into the end of a heavily used wood drill.

¹⁸⁸ The similar v-shaped bone pieces on the three drills suggest a regional trait. Collector locations of Kotzebue Sound and Norton Sound suggest an area around the Seward Peninsula but a more specific provenience requires additional examples. The wood shaft of drill 29-151-280 also features a v-shaped cutout but lacks an ivory attachment suggesting a state of incompleteness. Likewise, drill 29-151-280 has a flint biface inserted into a v-shaped notch without any means of securing it to the drill suggesting an addition of the flint to 'complete' the drill before being traded or sold.

wood pegs (Fig. 170).¹⁸⁹ Bogoras (1904:211) illustrates an identical drill from the Chukchi culture and explains a mouthpiece socket holds the cap firm while the drill shaft rotates.¹⁹⁰ Comparable drills from Little Diomede and southern Chukotka indicate continued interaction and stylistic influence between Siberian and Alaskan carvers during the late nineteenth to early twentieth century. Wood drills, like other handmade tools, often turn into family heirlooms. John Penatac (September 2012) of Nome shares he has kept the wood drills his father used on King Island.



Fig. 169. Wood drill with round iron nail bit secured by bearded sealskin lashing. L 25, W 1.9 cm. Collected by Edward Nelson in Norton Sound. NMNH E33168.



Fig. 170. Wood drill with iron nail bit and wood ring at base. L 25.3, W 3.2 cm. Collected from Little Diomede before 1919 with a wood mouthpiece and ivory drill bow. NMAI 94635

¹⁸⁹ John Pullock (April 2012) states King Islanders only used plain wood drills and those with rings or caps on the end were never seen on King Island.

¹⁹⁰ Bogoras (1904:211) offers further description of the Chukchi drill, “At the present time the Chukchee bow-drill always has an iron point. It is set in a stout wooden shaft, the top of which forms a strong pin. This passes through a circular hole in the middle of the head-cap, so that the latter can be held fast while the shaft revolves in it. Another pin prevents the cap from slipping off.” The AMNH holds several Chukchi and Koryak drills with caps, similar to NMAI 94635, collected by Waldemar Jochelson and Bogoras between 1901-02 including AMNH 70/3698 AB, 70/6779 AB and 70/6781.

Hearths

Drill bows represent an essential part of a traditional carver's toolkit but they also function as an implement of survival to start a fire. During the late nineteenth century, drill bow users from northwest Alaska often kept handy a simple block of wood with conical depressions in which to place tinder ignited by the rapid rotation of a drill point (Fig. 171) (Ray 1885:46; Jacobsen 1977:119). The process remains relatively unchanged today as described by Henry Koonook (April 2010) who keeps a wood drill specifically for starting fires up the river at his camp. To start a fire, Koonook places kindling or baleen shavings into a hole on a flat hardwood board and uses his drill bow to ignite the tinder.

Sheldon Jackson acquired a nineteenth century bow drill set comprised of a long ivory bow with Little Diomedede style imagery, a long wood drill, a mouthpiece with a square metal socket, and a rectangular wood hearth (Fig. 172). The hearth appears moderately used with light soiling to the wood and darkened interiors of two large and two small circular depressions on the front with a wide grooved channel on either side for placing tinder. A grooved channel around the end on the reverse side suggests the carver hung the hearth with a strap.¹⁹¹ The transient nature of simple wood hearths probably attributes to their scarcity within museum collections.¹⁹²

¹⁹¹ The hearth also includes the remnants of four iron nails indicating earlier display on the wall post-collection.

¹⁹² Museum collections retain a larger number of wood hearths shaped like simplified human figures acquired from Koryak and Chukchi villages during the late nineteenth-early twentieth century (i.e. AMNH 70/6034, 70/6183, 70/6397).



Fig. 171. “Ivory Worker.” Nome, AK. Photograph by Curtis Jacobs, 1917-1948. Carrie M. McLain Memorial Museum.

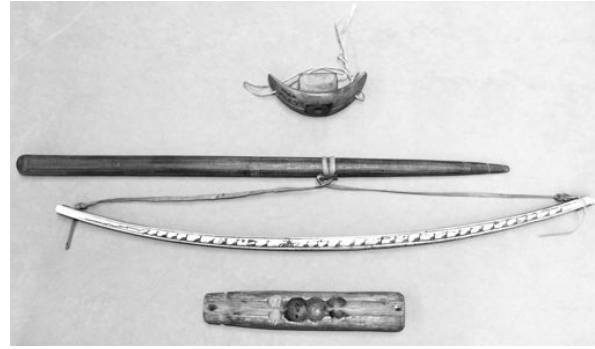


Fig. 172. Engraved ivory drill bow, drill, mouthpiece and hearth collected by Sheldon Jackson. SJM SJ-II-P-13.

In addition to wood hearths, drill bow users adapted other forms of material and objects to serve as hearths. An old ivory harpoon socket engraved with Punuk designs of simple lines and deep circular holes features nine drilled depressions indicating its use as a bow drill hearth to start a fire (Fig. 173). Likewise, while excavating at Cape Prince of Wales, Henry Collins uncovered an antler adze handle with early pictorial engraving next to a conical drill depression (see Ch. 6, Fig. 205). Contemporary carvers may also repurpose drill bow hearths and transform them into new creations. Jerome Saclamana (April 2012) created a carving incorporating an old ivory hearth and notes he just left it natural, carvings the ends to represent a shaman and placing two ivory seals to appear as if they are leaving and entering holes in the ice (Fig. 174).



Fig. 173. Ivory harpoon socket used as a bow drill hearth, Punuk. UAMN, uncatalogued.

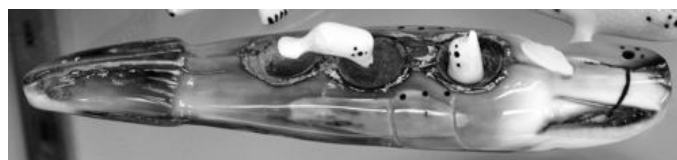


Fig. 174. Old ivory bow drill hearth carved into a shaman with seals by Jerome Saclamana.

CHAPTER 6

ORIGINS OF PICTORIAL ENGRAVING AND AN EARLY DRILL BOW FROM CHUKOTKA

Cultural origins of the Bering Strait pictorial style remain contested among contemporary archaeologists and art historians (i.e. Bronshtein 2006; Fitzhugh 2009b). Based on archaeological investigations in the 1930s, Henry Collins (1937) attempted to construct a unilinear timeline for Old Bering Sea engraving styles and argued pictorial origins lay in Eastern Siberia. In the following discussion, I suggest two visual systems of early pictorial engraving, a Birnirk-Thule style and a Punuk-Thule style, overlapped and merged at specific sites along the coasts of the Bering and Chukchi Seas.

Ancient Ivory Graphic Designs

The Bering Strait region carries a vibrant artistic history dating back to about A.D. 100 with waves of cultural settlement including Okvik, Old Bering Sea (OBS), Ipiutak, Birnirk and Punuk peoples (see Fitzhugh, Hollowell, and Crowell 2009). Visibly dominant within the archaeological record are ivory carvings engraved with graphic designs used as hunting implements, ritual objects, utensils and personal items. The complex patterning of linear designs wrapped around ancient ivories perhaps functioned as a form of template or outline providing carvers with the necessary morphological characteristics to construct each implement (Bronshtein 2009:108).¹⁹³ Likewise, ancient art styles contain macro- and micro-elements that indicate an organized manner of ivory production embedded within cultural and societal practices (Bronshtein 2006).

¹⁹³ Ancient Old Bering Sea and Ipiutak ivories express a set of guidelines for constructing designs similar to the formalized system of graphic elements used in Southeast Alaska, see Bill Holm, *Northwest Coast Indian Art: An Analysis of Form*, (Seattle: University of Washington Press, 1965).

Rather than engraving images of flora and fauna, ancient carvers shaped ivory into sinuous contours of animals that reveal an intimate knowledge of the anatomy and movement of Arctic animals (Fig. 175). Ivory carvers also created zoomorphic objects that feature exaggerated characteristics to perhaps indicate supernatural strength of the animals on which Bering Strait communities depended (Fig. 176). Contemporary carver Ross Schaeffer (April 2012:2) expresses a type of hunting power embedded within the abstract designs, “a lot of tools, to provide you with the power to get that animal, they did that little art, inside those tools. Reflecting the animal, or the markings in such a way that reflects their spiritual connection to that animal.”



Fig. 175. Carved ivory polar bear, OBS II. From Burial 299, Ekven cemetery. L 9.8, W 4, D 4.6 cm. State Museum of Oriental Art, Moscow (101) (from Bronshtein and Dneprovsky 2008:133).



Fig. 176. Zoomorphic ivory drag handle line-attacher or toggle, OBS II. From Burial 234, Ekven cemetery. L 13.2 cm. Courtesy of the State Museum of Oriental Art, Moscow (118). The whiskered snout, curved tusks and flippers suggest a fierce, mythological walrus.

Ivory carvers from the OBS and Ipiutak cultures appear to have incised designs using slender ivory styluses with elaborate openwork and knobs (Figs. 177-179). Styluses from the Ipiutak site at Point Hope contain both bone and iron bits with the latter providing evidence that ancient cultures in north Alaska had access to iron, probably

obtained from east Asian traders (Larsen and Rainey 1948:82-84; Dumond 2009:77).¹⁹⁴

Froelich Rainey describes the discovery of iron-tipped engraving tools at Ipiutak:

You will be interested to know that we have found proof that our Ipiutak people used iron...with this last shipment of material dug by Larsen after Shapiro and I left Point Hope were all those delicate engraving tools with iron oxide still remaining in the big slot. There is no nickel in the residue and thus it was probably not meteoric iron. Metal must have been rare because we find squirrel teeth in some of the engraving tools but many of the composite knife handles must have had iron blades. (Letter from Rainey to Clark Wissler from College, Alaska, Dec. 8. 1941)¹⁹⁵

Open slots on the ends of ivory styluses suggest the use of interchangeable bits to engrave varied design elements similar to later wood drills from the Thule period (Ford 1959). Holding an ivory stylus like a pencil in one hand would have left the other hand free to hold and rotate an object as a carver incised patterns comprised of fluid lines.

Point Hope carver Art Oomittuk (April 2010:7) remarks on the difficulty in trying to recreate ancient graphic designs:

When I tried to create those lines, the engravings, with even a metal tool, metal engraving tool . . . You can't get this kind of detail like that. On the first swipe, I have to go five, six, seven, eight times, and then the more you go, sometimes you have a little bump in it. But these are perfect.



Fig. 177. Ivory engraving tool with openwork. From Burial 220, Ekven cemetery. L 19.7 cm. State Museum of Oriental Art, Moscow (98) (from Ackerman 2009:82).

¹⁹⁴ The Ipiutak site at Deering, AK yielded one-half of an engraving stylus with eight knobs in two horizontal rows similar to Fig. 180. Unlike the Ipiutak site in Point Hope, the Deering site also included thirteen spruce drills and hearths but no drill bows suggesting rotation of the drills by hand (Larsen 2001:53).

¹⁹⁵ AMNH Anthropology Archives, Records of the Rainey-Larsen Point Hope Expedition, 1939-1941, Box, 1, Folder 1, Correspondence, Froelich Rainey to Clark Wissler, 1939-42.



Fig. 178. Ivory engraving tool with radiating knobs and openwork. L 10.2, W .9 cm. From House 53, Ipiutak. UAMN 1-1941-4899.



Figure 179. Ivory engraving tool with openwork ornamented with solid and broken lines. L 9.2, W 1.1 cm. From House 62, Ipiutak. AMNH 60.2/3483.

By about A.D. 800, the Old Bering Sea complex of elaborate curvilinear designs, nucleated circles with multiple rings, and straight, dashed and barbed lines, merged into a simplified system of graphic decoration related to the Punuk culture (A.D. 800-1200). The overlapping Birnirk culture (A.D. 800-1200) with sparse ornamentation does not appear to form part of the OBS continuum but both Punuk and Birnirk cultures fostered the development of the Thule culture and art style (Dumond 2009:75; Fitzhugh 2009:88). The visual systems of Birnirk and Punuk cultures circulated for several hundred years and graphic elements related to these two art styles appear alongside Thule pictorial engravings and nineteenth century drill bows in the form of barbed lines and bands, pronged lines and nucleated circles.

An Ancient Pictorial Engraving from Un'en'en

During the summer of 2007, Dan Odess and a team of Russian-American researchers uncovered a 50 cm long piece of engraved walrus ivory at the ancient Un'en'en site near the modern whaling village of Nunligran, located on the southern coast of the Chukotka Peninsula (Fig. 180).¹⁹⁶ Russian archaeologist Nikolai Most discovered the ivory carving

¹⁹⁶ The village of Nunligran is located about 180 km from Provideniya in a bay between Cape Achchen and Cape Tkeyutu. The settlement's original inhabitants were Yup'ik before being displaced by Chukchi. The current community continues to hunt walrus and has approximately 370 residents. Almost 4 km from modern Nunligran on the southern shore of Preobrazheniya Bay, stands the remains of whalebone

in conjunction with roof timbers from a collapsed structure with wood samples carbon dated to 3,000 years old (Powell 2009).¹⁹⁷ The engraved ivory depicts figures hunting whales with harpoons in skin boats leading researchers to believe the Un'en'en site represents the Old Whaling Culture, antecedent to the OBS cultures, and the earliest known people to hunt whales in the Arctic (Fisher 2008).¹⁹⁸

The Un'en'en ivory carving has a slightly curved form with a drilled, oblong hole on one end and a vertical groove from lash wear on the opposite end, indicative of use as a drill bow or bag handle.¹⁹⁹ The carving features barbed lines around the lash hole and two rows of pictorial imagery evenly spaced across the lower half of both broad sides.²⁰⁰ Motifs have moderately deep incisions and are darkened by gouging out the centers or using dense cross-hatching. Imagery includes: umiat hunting whales with the aid of

dwelling dating to the Birnirk period a thousand years ago. The Birnirk site was built over the ancient village of Un'en'en suggesting a cultural continuity in the area for over two thousand years. See Krill Skorobogatko (ed.), *Chukotka*, (Moscow: Avant-Garde Publishers, 2006).

¹⁹⁷ Archaeologists at the Un'en'en site also discovered tools for hunting and butchering, which are housed with the engraved ivory at the Institute for Heritage in Moscow. Sergey Gusev, of the Institute for Heritage, originally discovered the Un'en'en site in 2003 and served as Russian Co-Director of the collaborative project in 2007 (*Current World Archaeology* 2008).

¹⁹⁸ The only other site identified as Old Whaling Culture is on Cape Krusenstern north of Kotzebue Sound where archaeologists in the 1950s excavated a number of semi-subterranean houses carbon dated to 3,000 years old. Odess argues the evidence for whaling at Cape Krusenstern is circumstantial, as whalebones found at the site could have washed up from the shore (Powell 2009). For in-depth discussion on concerns with dating the beach ridge complex at Cape Krusenstern, see Owen K. Mason and Stefanie L. Ludwig, "Resurrecting Beach Ridge Archaeology: Parallel Depositional Records from St. Lawrence Island and Cape Krusenstern, Western Alaska," *Geoarchaeology: An International Journal*, 5(4)(1990): 349-373.

¹⁹⁹ At 50 cm long, the Chukotka ivory more closely relates to twentieth century drill bows with an average length between 35-45 cm compared to shorter bag handles typically between 15-30 cm in length. Vertical grooves on drill bows and bag handles are caused by cordage, typically of sealskin or sinew, wrapped around the object's end abrading the surface during use.

²⁰⁰ Barbed lines generally appear on engraved ivory objects from the Punuk period as well as from the Ipiutak site. The Chukotka ivory has six barbed lines radiating from the lash hole, with atypical barb extension through each line.

harpoons and sealskin floats, harpooning walrus on the ice, hunting polar bears with spears, a kayak hunter, rows of dancers, dogs, birds, and conical tents.

The ancient ivory uncovered in Un'en'en includes remarkable similarities to an engraved ivory drill bow acquired by Frederick W. Beechey between 1826-27 with Point Hope style pictorial engraving (Fig. 181a-b).²⁰¹ Beechey's drill bow features a carved polar bear head on one end, double lash holes, blue beads and two broad sides with pictorial imagery. Motifs are moderately deep and primarily darkened with dense cross-hatching. One of the principal similarities between the Un'en'en and Beechey carvings are engraved figures with rectangular bodies and triangular heads carrying vertical spears or ice picks (Figs. 182-183).²⁰² Both ivories also depict figures with tall, rectangular bodies and extended arms in umiat constructed with curved bow and stern (Figs. 184-185). Further, each carving portrays polar bears with elongated necks and curved, distended torsos darkened with cross-hatching (Figs. 186-187).

²⁰¹ During 1826-27, Beechey navigated the HMS *Blossom* through the Bering Strait traveling close to eastern Chukotka and reaching as far north as Point Barrow. Beechey reports acquiring engraved implements from Kotzebue Sound during the summer of 1826 but the carvings probably derived from a number of Siberian and Alaskan villages attending the annual trade fair in Hotham Inlet. However, Beechey sketched engraved drill bow BM Am1983.27.1 alongside other implements that appear to be from north Alaska and might specifically originate from Point Hope as depicted in William Beechey's painting of a Point Hope man holding a drill bow (see Chapter 2, Figs. 67, 74). Characteristics of the Point Hope style of engraving are discussed in Chapter 7.

²⁰² Beechey collected drill bow BM Am1983.27.1 along with ivory net gauge BM Am.1377 engraved with similar tall, rectangular figures holding ice picks and pulling seals, darkened by gouging out motif interiors.



Fig. 180. Engraved ivory implement from the Un'en'en site on the southern coast of the Chukotka Peninsula. L 50 cm. (from *Current World Archaeology* 2008:6).

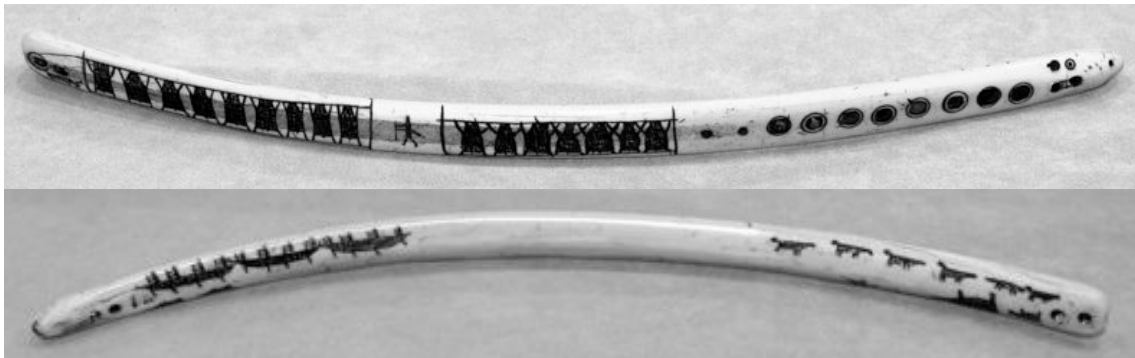


Fig. 181a-b. Opposite sides of engraved ivory drill bow BM Am1983.27.1 with inset blue beads and the right end carved into a polar bear head. L 34.1, W 1.95, D 1.05 cm. Collected by Frederick W. Beechey aboard the HMS *Blossom* in 1826-27.



Fig. 182. Detail of figures on Un'en'en carving.

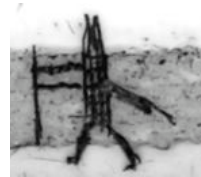


Fig. 183. Detail of figure on Beechey drill bow.



Fig. 184. Detail of umiaq on Un'en'en carving.



Fig. 185. Detail of umiaq on Beechey drill bow.

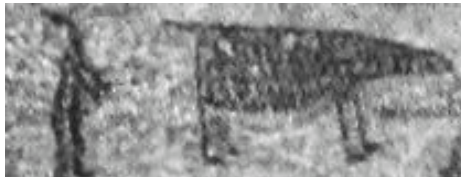


Fig. 186. Detail of bear on Un'en'en carving.

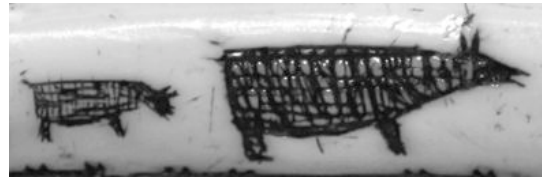


Fig. 187. Detail of bears on Beechey drill bow.

Pictorial similarities between the Un'en'en carving and Beechey's drill bow encourage inquiry into understanding the stylistic progression by which pictorial elements of the ancient carving diffused into motifs found on the nineteenth century drill bow.²⁰³ While it may be tempting to view the engraved carving from Un'en'en as a predecessor to the OBS ornamental system, several issues arise with this early dating. First, the Un'en'en carving depicts a developed pictorial scene with multiple animals and figures engaged in various activities. The pictorial complexity implies the existence of an antecedent style comprised of simpler scenes or individual motifs. Second, a later Birnirk site with whalebone framework dwellings was built over the ancient village of Un'en'en posing complications for disentangling and dating a succession of artifacts. James Ford (1959:36) describes issues with excavating and dating superimposed houses at the Birnirk site close to Point Barrow, "Complicating factors are the utilization of earlier house pits for later structures,

²⁰³ A close connection exists between the pictorial style found on the Chukotka and Beechey carvings with those of twentieth century engraved ivory implements from Point Hope (see Chapter 7).

the robbing of timbers from earlier structures, with consequent overturning of the cultural deposits, and the inclusion of earlier specimens in the soil that was placed on the roof of later houses.” Consequently, the Un'en'en carving uncovered in 2007 could have been buried in the presence of earlier structural or cultural material.

Specifically, I contend the Un'en'en carving does not extend backwards several thousand years; rather, the carving appears to have developed from a pictorial style originating out of the Birnirk culture. I suggest a fluid connection existed between the Birnirk cultures of southern Chukotka and northern Alaska that developed into a Birnirk-Thule ornamental system with simple pictorial imagery engraved on implements and eventually nineteenth century engraved drill bows from particular regions.

Birnirk-Thule Pictorial Style

Based on his excavations in the Bering Strait, Henry Collins (1939:1) argued, “the present evidence indicates that the prehistoric Birnirk culture, characteristic of Point Barrow and the Arctic coast of Alaska, was the particular form which gave rise to the Thule. The Birnirk itself was contemporaneous with the early Punuk and seems likewise to have been derived from the Old Bering Sea.”²⁰⁴ As indicated by Collins, the Birnirk period appears to follow the OBS culture with principal Birnirk traits including the single barbed harpoon head, curvilinear impressed pottery, ground slate oil lamps and a lack of highly developed decorative artistry (Ford 1959; Mason 1998; Dumond 2009).

Collins (1973:10) identifies Birnirk graphic elements as “simple designs consisting of spurred lines, alternate spur motif, curved double lines, rows of dots or

²⁰⁴ Collins, 1939, “On the Origin and Relationships of the Old Bering Sea Culture.” National Anthropological Archives, Smithsonian Institution, Henry B. Collins Papers, Box 45.

broken lines, drilled pits, and (rarely) the circle and dot...and small arc-like figures.”

Mikhail Bronshtein (2006:165) offers an additional description of Birnirk motifs including straight lines with widely spaced straight or slanted barbs (triangles), slanted dashes, and prongs or double-prongs (Fig. 188). Another distinct motif includes a horizontal line with vertical bars that often extend through both sides of the line (i.e. Fig. 193).

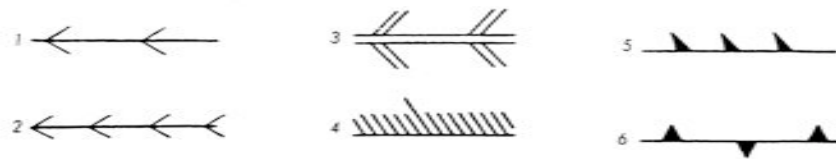


Fig. 188. Basic motifs of Birnirk graphic design (from Bronshtein 2006:165).

Birnirk graphic elements appear alongside pictorial motifs on a number of ivory and bone carvings. Birnirk-Thule motifs are characterized by irregular outlines and narrow incisions with a sketchy, delicate appearance. Based on my analysis of extant artifacts and archaeological site data, examples of the Birnirk-Thule pictorial style originate from sites at Point Barrow, Point Hope, Ekven, Cape Prince of Wales, Little Diomede, and the southern coast of Chukotka.

Punuk-Thule Pictorial Style

Overlapping with the Birnirk period, the Punuk culture developed out of the OBS tradition of graphic design and merged with earlier engraving styles at Point Barrow, Point Hope, East Cape, Cape Prince of Wales, St. Lawrence Island and Indian Point. Punuk elements tend to be large and include: straight lines with pairs of barbs, barbed bands, ladder or checkered lines, bevel lines, nucleated circles and zigzag like motifs (Fig. 189).

Elements of Punuk graphic design combine with simple pictorial motifs to form a Punuk-Thule pictorial style on implements such as wrist guards and combs with Punuk abstract elements carrying over into complex scenes on engraved drill bows. Punuk-Thule motifs tend to feature straight outlines with completely darkened centers resulting in weighty and bold imagery.



Fig. 189. Basic motifs of Punuk graphic design (from Bronshtein 2006:166).

Birnirk-Thule and Punuk-Thule Engraving Techniques

Ancient carvers of the Birnirk and Punuk cultures appear to have utilized simple engraving styluses made from ivory and wood modeled after the elaborate engraving tools of OBS carvers. Similarities between the ancient engraving tools indicate an eastern influence or migration accompanied by the presence of iron from Siberia. I suggest the use of these simpler styluses with iron points produced a thin and shallow style of etching related to OBS ornamental decoration.

In contrast to producing designs with slender engraving styluses, carvers of the succeeding Western Thule culture favored engraving knives in addition to wood drills or spindles used in conjunction with mouthpieces and drill bows (Mathiassen 1927:79-82). It appears westward movements from the Canadian Arctic propitiated the use of bow drills among Bering Strait communities and merged with Punuk, and to lesser extent Birnirk, engraving technologies resulting in bolder decorative styles. Specifically, initial

adaptation of drill bows by Bering Strait carvers seems to have resulted in larger and deeper motifs made through rapid drill rotation such as deep nucleated circles and human figures with symmetrical pitted heads.

Point Barrow, AK

The northernmost identified Birnirk site consists of sixteen mounds with sod-covered houses built on the remains of older structures creating three irregular rows at the southern end of a sandspit approximately halfway between the modern village of Barrow and the Point.²⁰⁵ During the 1930s, James Ford led a series of excavations at Birnirk and worked to define a set of cultural traits explaining the site's close relationship to the Okvik and OBS groups of St. Lawrence Island and Siberia (Ford 1959).²⁰⁶ The Birnirk site yielded five undecorated engraving styluses, three of wood and two of ivory, with rounded ends, probably smoothed by a bearing, and grooves for lashing on bits of iron (Ford 1959:171) (Fig. 190).²⁰⁷ Ford (1959:171) also uncovered a similar engraving tool of wood from the remains of a Punuk culture house about 75 miles down the coast from Barrow at the Nunagiak site.

²⁰⁵ Birnirk is located on a sandspit separating Elson Lagoon from the Arctic Ocean. The village's atypical proximity to the shoreline may be due to elevation of sea levels between 1000-1100 AD resulting in raised beaches and partial flooding of the Birnirk site. See James D. Hume, "Sea-Level Changes during the Last 2000 Years at Point Barrow, Alaska," *Science* 150(3700)(1965): 1165-1166. Patrick H. Ray and John Murdoch made first mention of the old Birnirk site while at Pt. Barrow between 1881-1883. The majority of engraved objects they collected feature modern Thule pictorial imagery but a few objects link to Birnirk graphic design including an engraved drill bow (see Figure 200 and Ray 1885:37, Murdoch 1988).

²⁰⁶ Aided by two to four Native assistants, Ford (1959) also uncovered a series of Birnirk Period burial sites at Kugok near Utqiagvik (Barrow), at Nunavak (6 miles south of Barrow), and at Walakpa. Ford's team also undertook brief excavations at Nuvuk (Point Barrow), Nuvuwaruk (south of Birnirk) and Utqiagvik.

²⁰⁷ The five engraving tools were uncovered from Mounds A and C at the Birnirk site. A small amount of iron rust was uncovered at the tip of one stylus while the other four tools lacked points. Larsen and Rainey (1948) identified both bone and iron tips in ivory styluses uncovered at Ipiutak.

In addition to engraving styluses, the Nunagiak site yielded one wood drill spindle while the Birnirk site yielded one antler drill bow, two spruce drill spindles, many drill bits made from seal bone, and four caribou astragali (vertebrae) used as bearings (Ford 1959:174-75) (Fig. 191).²⁰⁸ The use of wood spindles with caribou astragali is a defining trait of Canadian Thule culture and the presence of both slender styluses and stout spindles at Barrow's ancient sites suggest a westward movement from the Canadian Arctic shortly followed the Birnirk and Punuk periods and developed into Thule influenced pictorial engraving styles.²⁰⁹

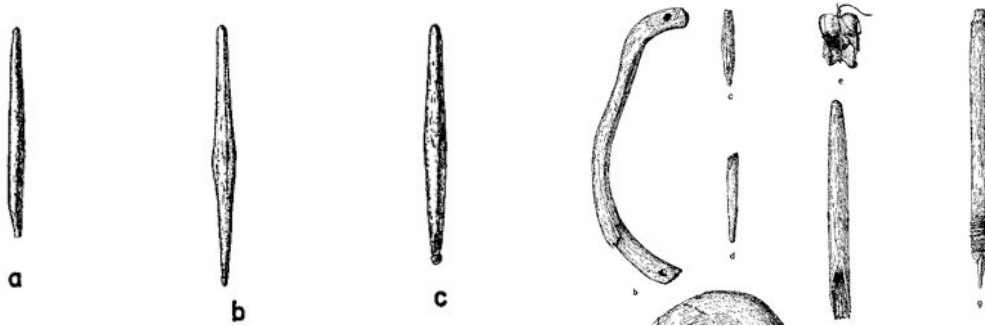


Fig. 190. Birnirk engraving tools of wood and ivory ranging from 5.5-7 cm long. Excavated from the Birnirk site close to Point Barrow (from Ford 1959:Fig. 105).

Figure 191. Thule antler drill bow, caribou astragali, and spruce drill spindles ranging from 19-28 cm long. Excavated from the Birnirk site close to Point Barrow (from Ford 1959:Fig. 85).

²⁰⁸ Ford's excavations uncovered almost thirty bone points among loose material suggesting frequent use of the wood drills. Ford (1959:171) describes the points as commonly made from the proximal end of a seal fibula, trimmed at the articulation, to fit in the end slot of the drill. Caribou astragali have a naturally rounded pit making them an ideal bearing for drills. The presence of both engraving styluses and wood drills suggests an overlapping of cultural periods as well as possible entanglement of artifacts from the superimposed house sites.

²⁰⁹ Mouthpieces made of ivory and wood appear to be favored by Punuk-Thule settlements in Northwest Alaska and the Bering Strait Islands while Birnirk and Western Thule cultures of Point Barrow and the Canadian Arctic commonly made use of caribou astragali for drill bearings (Mathiassen 1927; Jenness 1954; Ford 1959; Ackerman 2009). Ford (1959:242) lists 46 cultural traits linking the Birnirk phase with the Thule Culture of Central Canada and concurs with Henry Collins who explained this relationship as a recent westward movement of Thule people from Canada to Pt. Barrow.

Birnirk-Thule Pictorial Examples

Excavations at the Point Barrow Birnirk site in the 1930s uncovered harpoon heads with simple, straight lines and a few decorated items etched with vertical barred lines, barbed lines, and nick patterns.²¹⁰ The earliest known carvings to combine Birnirk graphic elements with pictorial motifs derive from collections made by Vilhjalmur Stefansson in 1912. Stefansson spent about one day in August 1912 excavating a mound with whalebone framework at a site he called Birnirk that Utqiagvik (Cape Smythe) and Nuvuk (Point Barrow) villagers identified as belonging to earlier generations (Stefansson 1914:393). Stefansson uncovered a stone labret, pottery sherds, firedrills and a few other objects and then purchased the remainder of Birnirk artifacts from Natives who continued to excavate the site.²¹¹

Stefansson collected several implements with Birnirk-Thule pictorial imagery including a bone wrist guard with a crudely etched bow hunter shooting a single caribou aligned on a pronged line derivative of Birnirk graphic design (Fig. 192).²¹² Stefansson

²¹⁰ William B. Van Valin, a schoolteacher in Barrow between 1917-1919, excavated six burial sites at Kugusugaruk and uncovered a number of harpoon heads also corresponding to the Birnirk period. He also acquired an ivory drill bow (NA4488) engraved with a long row of bearded seals and beluga similar to those on Figure 50 (drill bow 12587). Van Valin's collections are housed in the University of Pennsylvania Museum of Archaeology and Anthropology.

²¹¹ Each seller received a paper receipt describing the artifact and sales price to be exchanged for payment at Charles Brower's Trading Station. The majority of receipts stipulate a cash amount to be paid to the bearer but a few receipts, possibly for children, state payment in chewing gum. Stefansson retrieved several hundred receipts from Charles Brower before he left Point Barrow. The receipts date from June 25-August 12, 1912 and are handwritten on loose slips of paper, glued to notebook pages and squeezed into margins of the Saturday Evening Post. Stefansson apparently valued the receipts as a form of collection documentation or budget justification. AMNH Anthropology Archives, 1912-168, V. Stefansson Museum Expedition.

²¹² The engraved bow hunter includes a simple rectangular torso similar to those found on the carving from Un'en'en (see Fig. 187). The wrist guard possibly corresponds with a receipt from June 25, "Barrow, June 25, 1912 #75cents# C.S.W. & J. Co. - Please pay bearer twenty-five cents for one gutscraper (orivik), one stone knife and one wrist protector (for drawstring). Sold Stef. Arct. Exp. V. Stefansson." AMNH Anthropology Archives, 1912-168, V. Stefansson Museum Expedition.

also purchased a cylindrical ivory drill bow engraved with wolves pursuing a long row of caribou with curved antennae-like antlers standing and resting on a barbed and pronged Birnirk-style line (Fig. 193a-b).²¹³ The drill bow's animal motifs are constructed from a few lines of varying widths with interrupted outlines creating an appearance of simple wavering imagery.

Later carvers appear to have built on the Birnirk-Thule style of sparse motifs exemplified on the illustrated wrist guard and drill bow. For instance, in 1894 E. O. Stafford sold the Field Museum an ivory drill bow engraved with a central baseline and two rows of imagery including bow hunters shooting caribou, hunting seal on the ice, figures engaged in warfare, a row of beluga, and elliptical kayaks (Fig. 194).²¹⁴ These few examples assist to delineate an early and rough pictorial style incorporating Birnirk graphic elements that seems to have circulated for a short time in congruence with a Punuk visual system before being largely supplanted by a bolder Punuk-Thule style.



²¹³ Drill bow 60.1/299 specifically fits the description of a drill bow purchased on July 8, 1912 with a receipt that states, “Barrow, July 8, 1912 \$1 25# (\$1 25) C.S.W. & J. Co - Please pay bearer one dollar and twenty-five cents for one incised ivory (walrus) bow drill 14 ½ inch long, rounded (Noatak) sold Stef. Arct. Exp. (See diary July 8, 1912) and one sunauroguak drill socket.” Stefansson’s description of a rounded “Noatak” form might refer to a thought on curved drill bows relating to Hotham Inlet; he does not elaborate on this in his writings.

²¹⁴ The engraved object has two drilled lash holes on each end indicative of a bag handle but the exterior holes are stripped leaving single functioning lash holes indicative of drill bow use. The short, elliptical kayaks with central figures relate to Koryak kayak construction and suggest a connection between Birnirk cultures in southern Chukotka and Point Barrow. E. O. Stafford, a collector from Milwaukee, sold 316 “Eskimo curios” and other Alaska Native objects to the Field Museum for \$500 on January 24, 1894 (see Appendix D). Field Museum Anthropology Archives, Acc. 1897.67

Fig. 192. Engraved bone wrist guard. L 10.4, W 2.3 cm. Collected at Cape Smythe by Vilhjalmur Stefansson in 1912. AMNH 60/9732.

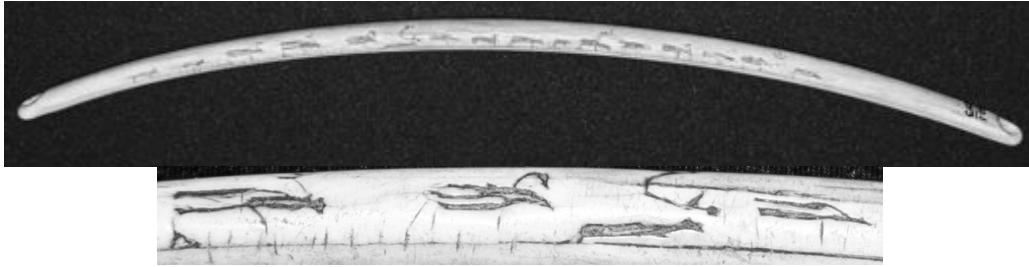


Fig. 193a-b. Engraved ivory drill bow purchased at Cape Smythe by Vilhjalmur Stefansson on July 8, 1912. AMNH 60.1/299.



Fig. 194. Engraved ivory drill bow sold by E. O. Stafford to the Field Museum in 1894. FM 12587.

Punuk-Thule Pictorial Examples

While Stefansson worked in the Point Barrow area during 1912, he also acquired a few ivory carvings engraved with large isolated motifs including animals and figures etched in conjunction with broad lines and barbed bands relating to a Punuk-Thule engraving style. For example, Stefansson probably collected the ivory comb with a v-shaped notch incised with barbed bands and single wolf-like animal on the front and back (Fig. 195). An ivory plate acquired at the same time features a similar v-shaped notch, large figures with rectangular torsos and raised arms, and wide lash holes probably created with the use of a bow drill (Fig. 196).

While the two ivories mentioned above feature sparse decoration, a Punuk-Thule style drill bow from Baffin Island includes a more complex village scene with kayaks and bow hunters integrated with Punuk graphic elements including a central barbed band and

ladder lines along the lower edges (Fig. 197).²¹⁵ A central barbed band also appears on a drill bow acquired by Miner Bruce with complex pictorial imagery representing a number of myth creatures (Fig. 198a). Additional barbed bands and row of nucleated circles along a narrow edge of this drill bow further reference Punuk graphic tradition while the presence of pronged lines also suggest a Birnirk influence (Fig. 198b-d).



Fig. 195. Ivory comb engraved with animals and barbed bands. Probably collected at Cape Smythe by Vilhjalmur Stefansson in 1912. L 8.8, W 4.1 cm. AMNH 0/376.

Fig. 196. Engraved ivory plate acquired by Vilhjalmur Stefansson at Cape Smythe in 1912. AMNH 60.1/1015.

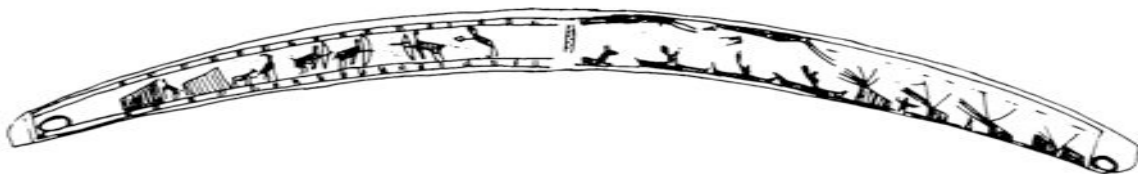


Fig. 197. Engraved ivory drill bow discovered near Arctic Bay, Baffin Island. Punuk-Thule. CMC PgHq-1.1 (from Pearce 1985:51).

²¹⁵ During the Fifth Thule Expedition in 1923, Therkel Matthiassen uncovered an ivory drill bow of a similar broad, curved shape engraved with a barbed band along the lower edge at the settlement of Qilalukan at Ponds Inlet (Matthiassen 1927:Pl.49). Local Natives also brought Matthiassen an ivory comb engraved with a barbed band, similar conical tents with protruding sticks, and two grazing caribou from the vicinity of the Kuk settlement on Southampton Island (Matthiassen 1927:Pl. 73).



Figure 198a-d. Engraved ivory drill bow with bearded sealskin strap engraved with Point Barrow style pictorial motifs. Barbed bands and nucleated circles derive from the Punuk tradition while pronged lines reference Birnirk graphic design. PMAE 98-18-10/52140.

Point Hope, AK

East of the modern village of Point Hope, the ancient Birnirk culture appears to have existed close to Ipiutak sites but with limited control of the area, possibly settling at Jabbertown (Mason 1998). Larsen and Rainey (1948) excavated potential Birnirk sites at Jabbertown and Old Tigara but their work yielded little in decorated materials.

Birnirk-Thule Pictorial Example

During 1927, Field Museum trustee John Borden navigated the schooner *Northern Lights* on a five-month collecting trip around northern Alaska and Canada acquiring three pictorial engraved drill bows including an ivory bow from Point Hope with a few simple motifs (Borden 1928) (Fig. 199). The drill bow appears an early example of pictorial engraving with thin, irregular lines used to construct four figures, a bowhead whale spouting, and five figures standing in an umiaq with a transparent side similar to the Chukotka carving (see Fig. 184).



Fig. 199. Engraved ivory drill bow with bearded sealskin strap collected by John Borden from Point Hope. FM 177754.

Punuk-Thule Pictorial Example

Collector John Hackman co-operated a shore-based whaling station in Point Hope between 1889-1905 and obtained another early engraved drill bow with a carved whale's fluke on the end (Fig. 200a-b). The mineralized ivory drill bow features transitional period engravings reflective of an Ipiutak-Thule style with barbed lines and nucleated circles to modern motifs of lightly incised caribou, wolves, whale flukes and figures, which are also constructed from barbed lines. The double rows of nucleated circles on the end are similar to those on the Beechey drill bow.



Fig. 200a-b. Ivory drill bow with bearded sealskin strap collected by John Hackman at Point Hope between 1889-1905. NMAI 4488.

East Cape, Chukotka

The village of Uelen lies on the northeastern coastline of the Chukchi Peninsula also known as East Cape, Siberia. About 30 km down the coast from Uelen rests the abandoned settlement of Ekven (A.D. 600-1600).²¹⁶ The Uelen and Ekven cemeteries are renowned for their elaborate ivory carvings buried in stratified layers from the Okvik, Old Bering Sea, Birnirk and Punuk cultures. The East Cape villages, and Ekven in particular, represent an intersection and overlying occupation between the ancient Birnirk culture of northern Alaska and Chukotka and the Punuk culture of St. Lawrence Island and southeastern Chukotka (Csonka 2009). One engraved drill bow or bag handle from Uelen represents this transfusion with a narrow side incised with nucleated circles and a broad side with hunters in umiat pursuing a bowhead whale with harpoons (Fig. 201a-b).²¹⁷ The pictorial motifs appear crudely engraved with irregular, broken outlines. Sparse horizontal lines to darken the whale and barbed lines to construct umiat reflect the Birnirk-Thule etching technique from Barrow.

Similar to Point Barrow and Point Hope, a Punuk-Thule style of etching superseded other existing styles and developed into a visual system exemplified by a group of early nineteenth century drill bows in the “East Cape” engraving styles (see Ch. 7). One of the drill bows associated with East Cape references Punuk graphic tradition

²¹⁶ The Ekven settlement consists of about twenty houses reconstructed on the remains of older structures with the reuse of whalebones and timbers as seen at southern Chukotka, Barrow, and other ancient sites. Archaeologists uncovered materials analogous to the Ekven burials in the deepest layers of the village while the majority of layers yielded objects in the style of Birnirk, Punuk and Western Thule cultures. (Csonka 2009).

²¹⁷ Lash holes on the carving’s ends suggest use as a drill bow or bag handle. Bronshtein and Shirokov (2008) date the implement from the eighteenth to nineteenth century but the rough etchings suggest an earlier date closer to the transitional Birnirk-Thule period.

with a barbed band at the end engraved in conjunction with curved dog sleds pointing to a Siberian Yupik provenience (Fig. 202).



Fig. 201a-b. Engraved ivory drill bow from Uelen, Chukotka. L 39, W 1.5, D 1.5 cm. State Museum of Oriental Art (11319) (from Bronshtein and Shirokov 2008:56).



Figure 202a-b. Engraved ivory drill bow with East Cape style pictorial imagery and barbed bands related to Punuk graphic design. BM Am1949.22.22.

Cape Prince of Wales, AK

East Cape functioned as a crossroads between Chukotka and Alaska and early pictorial motifs from Cape Prince of Wales and Little Diomede share an affinity with design elements from both continents. During the summer of 1926, Diamond Jenness of the National Museum of Canada carried out excavations at Cape Prince of Wales and Little Diomede uncovering the first evidence of the OBS period in addition to early examples of pictorial engraving. Subsequent excavations at Wales in 1936 by Henry B. Collins of the Smithsonian Institution yielded material engraved in two overlapping pictorial styles Birnirk-Thule and Punuk-Thule.

Henry Collins emphasized the import of the Kurigitavik and Hillside Midden sites at Wales to understanding the development of early pictorial art (Collins 1973). The Kurigitavik mounds are located on a low beach ridge extending into the modern village of Wales with habitat layers revealing a Birnik settlement followed by Punuk-Thule houses (Jenness 1928; Mason 1998).²¹⁸ During excavations at Kurigitavik, Collins uncovered one wood and two ivory engraving styluses of simplified form similar to those at Birnik in Barrow. One ivory stylus has carved openwork and bearded sealskin to secure an iron bit signifying the inhabitants' interactions with Siberian traders (Fig. 203). Another engraving stylus from Kurigitavik features carved knobs, similar to the Ipiutak stylus in Fig. 180, and six barbed lines (Fig. 204). The styluses probably produced thin incisions similar to their Old Bering Sea predecessors. Specifically, the styluses appear tied to a few excavated objects from Wales that illustrate a light and sketchy engraving technique considered here to be Birnik-Thule.

Birnik-Thule Pictorial Examples

While digging at Kurigitavik on July 28, 1936, Collins discovered an engraved antler adze handle he declared “the oldest known example of pictographic art.”²¹⁹ The handle features sparse and lightly etched motifs with scribble hatching on three sides with the narrowest side depicting a long row of crosses.²²⁰ One broad side features a bow hunter and caribou, two spears, and two lines with thin, long barbs reflective of Birnik

²¹⁸ Jenness, 1928, *Archaeological investigations in Bering Strait, Annual Report for 1926, Bulletin 50*, National Museum of Canada, Ottawa.

²¹⁹ Field Notes, Cut 7, Sec. 11, Collins Papers, Box 55. Reprinted in Dumond, 2000, 130.

²²⁰ Crosses frequently appear on twentieth century drill bows as a simplified form to represent migrating birds, see Chapter 9.

abstract design (Fig. 205a).²²¹ The opposite side includes a horizontally etched single, large figure with triangular torso, bent legs, raised arms and spread fingers (Fig. 205b). A similarly constructed figure also appears on an engraved ivory implement found on the western coast of Seward Peninsula by Jerome Saclamana in 2013 (Fig. 206a-b). Thus, the early practice of engraving a single figure perpendicular to the object might have started at Wales before it diffused to other areas as noted by the presence of over twenty horizontal figures engraved on twentieth century drill bows (see Appendix J).

Collins also uncovered a small ivory implement crudely etched with a whale and cache that seem to be a precursor of an engraved scene discovered by Diamond Jenness.²²² Jenness' 1926 excavation of House 13 at Wales yielded an ivory line sinker etched with a sod house, cache, fish rack, dog and battle scene, possibly between Wales and Siberian villagers (Fig. 207). Thinly incised wavering lines form sketchy motifs darkened with sparse vertical lines and scribble hatching similar to Fig. 198b. It appears the Birnirk-Thule style of thin and loose etching with narrow barbed lines on the engraving stylus, adze handle, and line sinker did not develop much further at Wales. Instead, this sketchy style seems to have been supplanted by an overlying occupation and wave of bolder design from the Punuk-Thule culture.



Fig. 203. Ivory engraving tool with openwork and ball. Curved iron bit secured with bearded

Fig. 204. Ivory engraving tool with barbed lines. Cape Prince of Wales,

²²¹ A circular depression on the antler handle denotes the object's use as a drill bow hearth by later Wales' inhabitants, possibly from the Punuk-Thule culture.

²²² Collins uncovered the crudely engraved ivory implement, possibly a netting tool, from another Birnirk site he called the Beach Midden. Smithsonian NMNH A394804.

sealskin. Cape Prince of Wales, Kurigitavik site, OBS II. NMNH A393598.

Kurigitavik site, Birnirk. NMNH A393581.

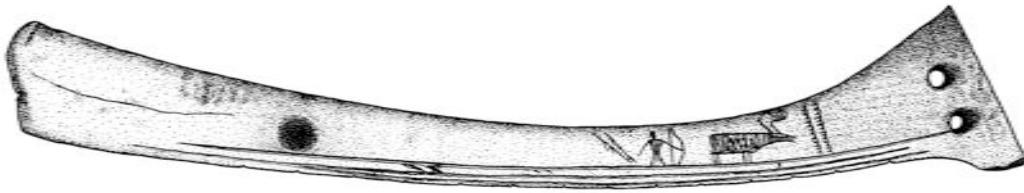


Fig. 205a. Engraved antler adze handle. L 31.3 l, W 5.7, D 2 cm. NMNH A393714. Excavated by Henry Collins from the Kurigitavik mound at Cape Prince of Wales. Pen and ink drawing by Henry Collins. National Anthropological Archives, Smithsonian Institution, Henry B. Collins Papers, Box 110.



Fig. 205b. Horizontal figure on NMNH A393714



Fig. 206b. Horizontal figure on carving found by Jerome Saclamana.



Fig. 206a. Engraved ivory implement resembling a two-pronged bird spear. Found by Jerome Saclamana along the coast north of Nome, AK. 2013.

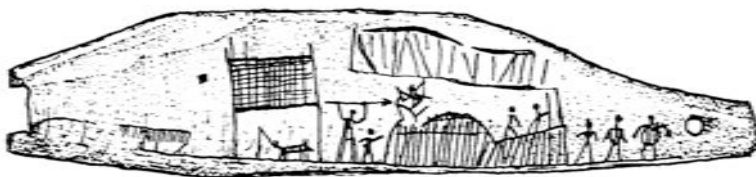


Fig. 207. Engraved ivory line sinker excavated in 1926 by Diamond Jenness from

House 13 at Cape Prince of Wales. CMC IX-F-7749 (from Morrison 1991:58).

Punuk-Thule Pictorial Examples

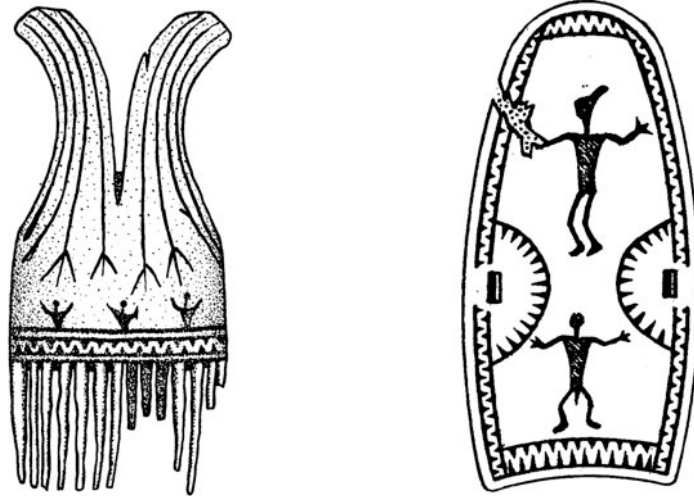


Fig. 208. Engraved ivory comb. L 7.5, W 3.5 cm. NMNH A395118. Excavated by Henry Collins from the Kurigitavik mound at Cape Prince of Wales. Pen and ink drawing by Henry Collins. National Anthropological Archives, Smithsonian Institution, Henry B. Collins Papers, Box 110.

Fig. 209. Engraved bone wrist guard. L 5.8, W 2.3 cm. NMNH A392832. Excavated by Henry Collins from the Kurigitavik mound at Cape Prince of Wales. Pen and ink drawing by Henry Collins. National Anthropological Archives, Smithsonian Institution, Henry B. Collins Papers, Box 110.

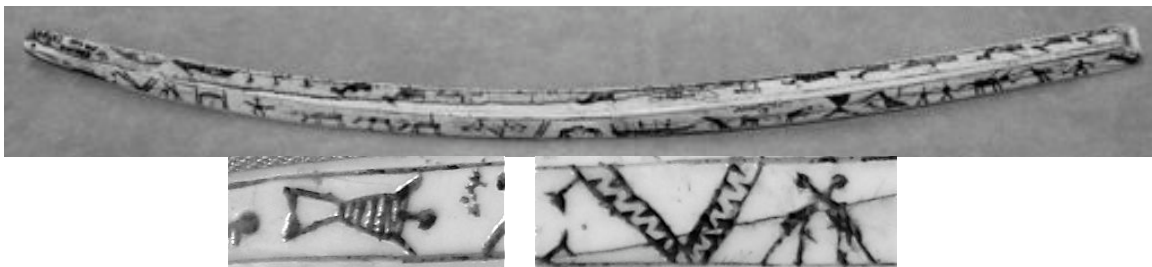


Figure 210a-c. Engraved ivory drill bow with Cape Prince of Wales style imagery including a horizontal figure with triangular torso and raised arms. Barbed bands on the drill bow reference Punuk graphic tradition. PR 1884.98.47.

Little Diomede, AK

On Little Diomede, Jenness struggled through dense permafrost to excavate three pairs of superimposed houses made from stone with whalebone and driftwood rafters. He uncovered a few artifacts with the remainder of his collection purchased from local diggers who sold old ivory to him for \$2.50 a pound (Morrison 1991:7). Jenness acquired a handful of implements etched with pictorial imagery including an ivory boat hook illustrating scenes of umiat hunting walrus and bowhead whale (Fig. 211).²²³ Motifs on the hook appear loosely etched with a few slanted lines to create high-sided boats and open rectangular figures. Whales feature spray derivative of older barred lines (i.e. Fig. 192) and walrus have long, thin tusks that merge with the outline and create an open space at the head.

Henry Collins illustrated another ivory boat hook with a carved bowhead whale on the end and broad sides etched in the style of Little Diomede (Fig. 212).²²⁴ The boat hook includes a few Birnirk-Thule graphic elements including slanted barbed lines and sets of facing barbs creating a form of double-pronged line. Lightly etched motifs darkened with scribble hatching combine to create scenes of walrus and whale hunting with high-sided umiat. Sketchy figures with raised arms appear similar to those in Fig. 198b while the barred whale spray and long walrus tusks relate to those of Fig. 204.

²²³ Boat hooks typically feature three to four lash holes to secure the hook to a long pole used when navigating boats through icy water. Edward Nelson purchased an engraved boat hook from Cape Nome whose owner said he dug it up at an old village site and kept it in the family for two generations. The etched scenes depict umiat hunting whale, mythological creatures and pairs of slanted barbs (Fitzhugh and Kaplan 1982:243).

²²⁴ The NMNH records do not have details regarding the boat hook's acquisition. Collins possibly acquired the engraved hook during his Bering Strait excavations in the 1930s.

One possible example of a Birnirk-Thule style of engraving appears on an ivory drill bow collected by Francis Sayre and identified as a Point Hope “buried walrus ivory bow - bow very old.”²²⁵ The square bow features sides etched with slanted barbed lines, barred lines, and hatched triangles possibly representing hide tents (Fig. 213).²²⁶ Perpendicular barred lines are analogous with Little Diomedé (see Fig. 207) while dense scribble hatching appears at Birnirk-Thule sites from Chukotka, Little Diomedé and Wales. Unlike Wales, Little Diomedé carvers of the twentieth century continued to etch in a somewhat sketchy style combining hatched figural motifs with elements of Birnirk-Thule graphic design. Edward Nelson collected an engraved ivory drill bow from Little Diomedé that visualizes the settlement’s roots in the Birnirk culture (Fig. 214a). The square drill bow depicts early summer scenes of hunting ducks and walrus in kayaks and umiat, a bird dancer, wolf, Western ships, and a polar bear with distended stomach similar to the Chukotka carving (Fig. 214b). Two drill bow sides feature multiple sets of barbed and pronged lines. The barbed lines, once used to enhance the sculptural outlines of ancient carvings, now appear modified into straight and curved bands to create and separate motifs (Fig. 214c-d).²²⁷

²²⁵ From handwritten tag attached to object “Drill, and buried walrus ivory bow – bow very old. North Alaska (Point Hope).” Smithsonian NMNH E379814.

²²⁶ Four-sided drill bows with squared edges are a distinguishing trait of Little Diomedé (see Chapter 7). Drill bow E379814 is the only known square bow from Point Hope suggesting an early stylistic transmission of form or exchange of goods between the two villages.

²²⁷ The curved band on drill bow E63623 echoes the Birnirk element of “small arc-like figures” described by Henry Collins (1973:10).

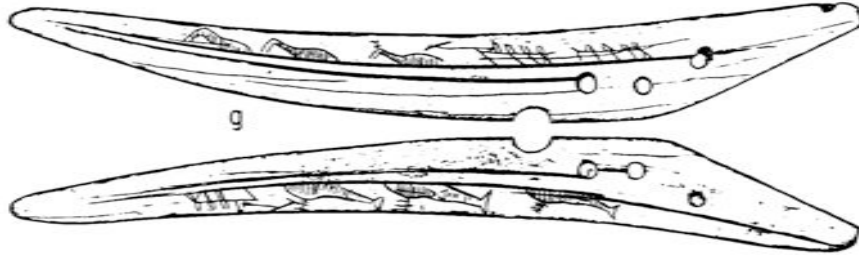


Fig. 211. Engraved ivory boat hook. L 40 cm. CMC IX-F-8513 (from Morrison 1991:63).



Fig. 212. Engraved ivory boat hook. 31.6 l x 3.8 w x 2.5 d cm. NMNH AT5952. Pen and ink drawing by Henry Collins. National Anthropological Archives, Smithsonian Institution, Henry B. Collins Papers, Box 110.



Fig. 213. Ivory drill bow with Little Diomede style engraving and bearded sealskin strap. Barbed and pronged lines relate to Birnirk-Thule graphic design. NMNH E379814.

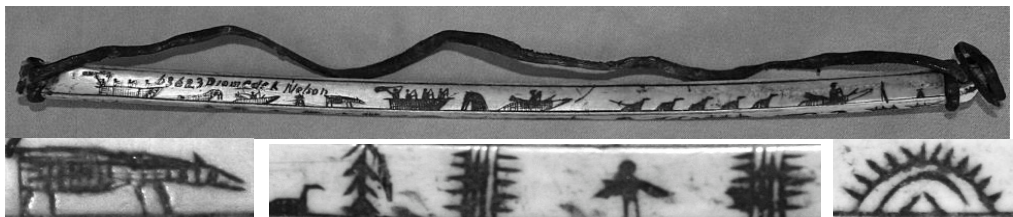


Fig. 214a-d. Engraved ivory drill bow and bearded sealskin strap. Collected by Edward Nelson from the Diomed Islands. NMNH E63623.

St. Lawrence Island and Indian Point, Siberia

During his excavations on St. Lawrence Island in the late 1920s, Otto Geist uncovered three ivory mouthpieces with small conical drill depressions.²²⁸ One ivory mouthpiece includes Punuk designs of engraved barbed lines, barred line ladders, and deeply drilled circles (Fig. 215).²²⁹ From the Sekloghyaget site on St. Lawrence Island, Geist also uncovered two slender ivory styluses with circular striations on their rounded tops suggesting the styluses were used with ivory mouthpieces (Fig. 216).²³⁰ Ivory mouthpieces might have also been used in coastal communities on the Alaska mainland. Baker Ningalook (June 2012) of Shishmaref recalls seeing mouthpieces of ivory but notes they belonged to past generations as his father used a plain ivory drill bow and hardwood mouthpiece with a stone socket.

An ivory drill bow also appears related to the Punuk culture from St. Lawrence Island with scalloped edging and engraved nucleated circles and ladder lines similar to those on the drill bow from Baffin Island (Fig. 217). Punuk and Birnirk graphic traditions continued to influence the design systems of early nineteenth century Siberian Yupik

²²⁸ The three mouthpieces include: 1-1926-0873 (Savoonga), 1-1927-2184 (Sekloghyaget), and M5680 (unidentified, possibly Sekloghyaget), University of Alaska Museum of the North. Edward Nelson also acquired ivory mouthpieces with conical depressions from St. Lawrence Island but the two examples he collected are rough, oblong sections of tusk (Nelson 1983:83; Pl. XXXVII). All three mouthpieces uncovered by Geist feature lash holes suggesting they were threaded onto bearded sealskin thong or caribou sinew and worn around the neck.

²²⁹ Ackerman (2009:79) illustrates a similar ivory drill socket engraved with Punuk barbed lines, provenance unknown, from a private collection in New York.

²³⁰ The other ivory stylus from Sekloghyaget features a similar shaft that swells in the center and tapers to a small, rounded top, l. 5.9 x diam .5 cm, UAMN 1-1927-2194. Neither stylus retains a drill bit, which were probably of iron. The Punuk styluses are of a simplified form compared to earlier engraving tools discovered at Ipituk and Old Bering Sea sites.

carvers as seen on drill bows associated with Indian Point including one bow with barbed bands around a carved animal head and a pronged line along a narrow edge (Fig. 218).



Fig. 215. Ivory mouthpiece engraved with barbed and pronged lines. L 6, W 2, H 2.3 cm. Puvuk culture. St. Lawrence Island. UAMN M5680.



Fig. 216. Ivory engraving tool. L 8.3, D .3 cm. Excavated by Otto Geist at the Sekloghyaget site on St. Lawrence Island. UAMN 1-1927-2195.



Fig. 217. Puvuk ivory drill bow. L 50.8, W 2 cm. Possibly from Southeast Cape, St. Lawrence Island. Courtesy of the Metropolitan Museum of Art, cat. no. 1979.410.

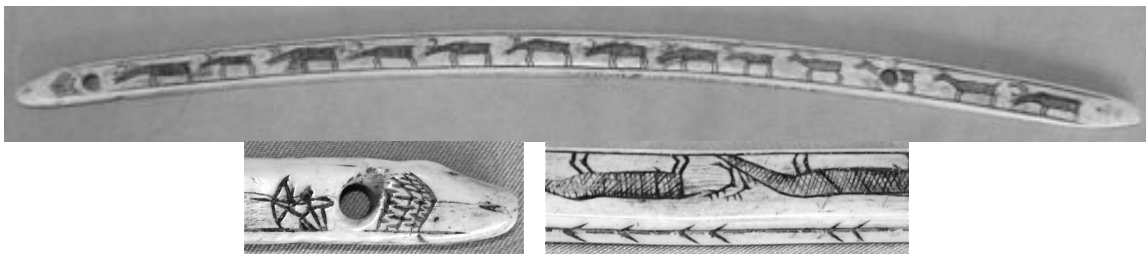


Figure 218. Engraved ivory drill bow with Indian Point style pictorial imagery. Barbed bands around the carved bear head relate to Puvuk graphic design while a pronged line across the narrow drill bow side references Birnikr abstract motifs. NMNH E24554.

Southern Chukotka

The densely engraved carving uncovered by Odess' team in 2007 at the village of Un'en'en, appears to represent one of the most developed examples of Birnirk pictorial design. The carving might reflect influences from the earlier decorative style of Old Bering Sea as pit house ruins containing OBS cultural layers exist at nearby Nunligran (Dikov 2003:229). In 1849, William Hulme Hooper traveled the eastern Siberian coastline and acquired an engraved drill bow with distinct similarities to the Chukotka carving including an umiaq with simple slanted figures and figures with bent legs and droopy arms (Figs. 219-223). Similarly, Francois Mercier acquired an ivory bag handle with sketchy imagery and droopy-armed figures analogous with those on the Un'en'en carving (Fig. 224).



Fig. 219. Ivory drill bow with southern Chukotka early engraving style and bearded sealskin strap. BM Am1855.1126.225.



Fig. 220. Detail of umiaq on drill bow Am1855.1126.225.



Fig. 221. Detail of umiaq on Un'en'en carving.



Fig. 222. Detail of figures on drill bow Am1855.1126.225.



Fig. 223. Detail of figures on Un'en'en carving.



Fig. 224. Engraved ivory bag handle with southern Chukotka style pictorial engraving. L 17, W 1.5, D .8 cm. CMC IV-E-258.

Painted Sealskin from Indian Point, Siberia

On January 8, 1849, William Hulme Hooper of the HMS *Plover* describes a visit by Teo, “a very pleasant and well-disposed old gentleman,” who was “Chief of Oongwysac,” a village of about three to four hundred people located at “Point Tchalpin,” also known as Indian Point located on the southeast corner of the Chukchi Peninsula (Fig. 225). Hooper (1853:106) records the Chief presented a number of gifts to the captain of the *Plover* including “a sealskin tanned and bleached perfectly white, ornamented all over in painting and staining with figures of men, boats, animals, and delineations of whale fishing &c., - a valuable curiosity.” Museum records and Hooper’s account appear to confirm the painted sealskin from Indian Point is now the one that is in the Pitt Rivers Museum in Oxford (Fig. 226a-b). Although the sealskin has been published many times this is the first attribution of a specific collector and date.

The painted sealskin offers a socio-historical record illustrating Native figures interacting with whalers on the coastline painted along the edges. Several elements link the painted imagery to Siberian Yupik culture including the presence of Siberian slat armor, sledges driven by both dogs and reindeer, and bowhead whaling in skin boats.



Fig. 225. Indian Point, Siberia. c.1897. Library of Congress, LC-USZ62-68743.

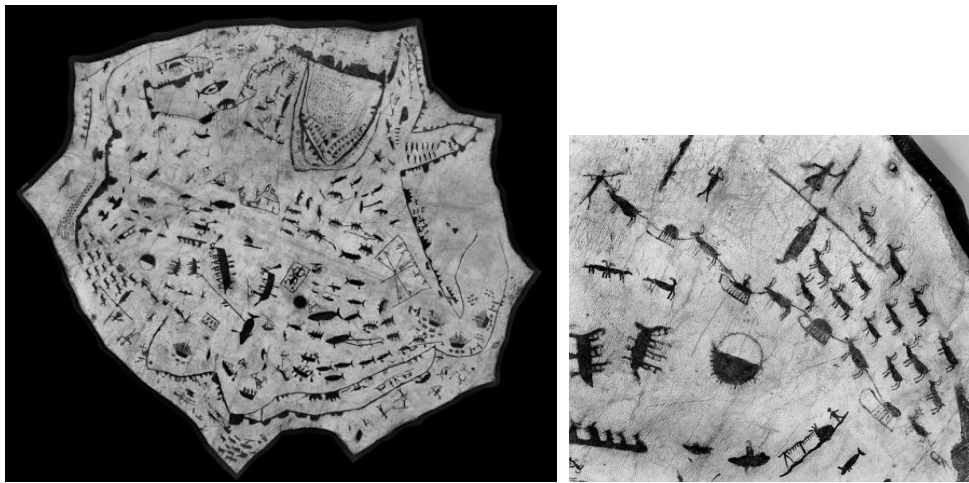


Fig. 226a-b. Painted sealskin collected by William Hulme Hooper in 1849 at Indian Point, Chukotka. W 117, L 111.5 cm. PR 1996.19.1.

An Early Drill Bow from Northern Chukotka

On August 10, 1778, Captain James Cook and other crewmembers from the *Discovery* and *Resolution* followed a few Siberian Yup'ik or Chukchi Natives to their village where Cook presented a few trade items in exchange for two fox skins and a couple of ivory tusks or carvings (Cook 1999:411). David Samwell gives a more detailed account of the exchange stating that the explorers purchased “some curious Articles of them, among which were small pieces of Ivory with the images of Dogs & rein Deer

drawing Sledges and very ingeniously executed, as were some rings or links of bone cut within each other which are mentioned by the Russians in their Account of Kamtschataka as having been found among the Tsutschki, a People inhabiting the North East extremity of Asia and whom we conclude these people to be.” (Cook 1999:1333). The interlocking rings Samwell mentions probably refer to ivory chains or swivels which appear in Old Bering Sea habitat layers in the Uelen and Ekven cemeteries as well as in burial sites from Ipiutak. Samwell’s mention of ivory links and Chukchi people implies the British crewmembers were in the East Cape region of Chukotka. His description of carvings *with* images of dogs and reindeer denote engraved ivory and could certainly refer to the one documented drill bow acquired by Cook (see Chapter 2, Fig. 68).

The carver of Cook’s drill bow fashioned the implement from a smooth, light-colored piece of ivory indicative of a walrus tusk from a recent hunt. The right end flares into a carved caribou head with elliptical, flattened ears, drilled nostrils, curved mouth and two turquoise beads inset into rectangular eye sockets. A deep, triangular channel under the caribou’s head outlines the jawbone with oily residue in the cavity suggesting use as a finger hold. The bow’s left end tapers to a rounded tip with a series of vertical lines incised at both ends. A single, circular lash hole extends through the caribou’s neck with two lash holes drilled through the upper and lower sides of the opposite end. A thin, plaited sinew strap passes through the two upper lash holes and extends along the bow’s lower side, passes through the single neck hole, and terminates in a knot.²³¹

²³¹ Pennant’s illustration depicts drill bow 27.4.61/32 with a broken sinew strap suggesting a repair post-collection. Few drill bows include straps from braided caribou sinew with a majority of drill bow carvers demonstrating preference for wide, bearded sealskin straps that might have offered more control and faster replacement of a broken strap.

The drill bow collected by Cook appears almost square in cross-section with four, straight-edged sides that taper slightly at the ends. All four sides include thinly incised upper and lower baselines, two sides use vertical lines to divide scenes, and two sides include motifs oriented to both baselines resulting in upside down imagery. Moderately deep incisions form motifs with thin, straight outlines creating a sharp-edged appearance. Motif centers are gouged out or filled in with dense square and scribble hatching rubbed with dark brown soot. Engraved scenes appear balanced in some areas while other sections feature gaps and motif clusters indicative of being etched at more than one time period. Disparate styles of engraved umiat and caribou also suggest a passage of time as well as the work of more than one carver.

The upper drill bow side, extending from the top of the carved caribou head, uses two vertical lines to create three panels with the far left scene depicting a hunter creeping towards two bearded seals on the ice (Fig. 227). The seals face two polar bears and a lump or killed seal on which the bears feast. The central panel illustrates ten figures working to cut up and drag away portions of a killed bowhead whale. Five cross-shaped birds and a small dog float above the butchering scene. Figures from the central panel extend into the right scene depicting an umiaq with five figures pursuing a harpooned bowhead whale dragging two sealskin floats. The drill bow's lower side, extending from the base of the carved caribou head, includes clusters and isolated motifs rather than compositional scenes (Fig. 228). A single walrus appears on the left end followed by three figures wearing slat armor, a pair of caribou, a figure wearing a fox or wolf tail, and a small caribou next to a tree. The right side depicts an umiaq with four figures tracking a whale pulling a single sealskin float and a lone bearded seal appears on the end.

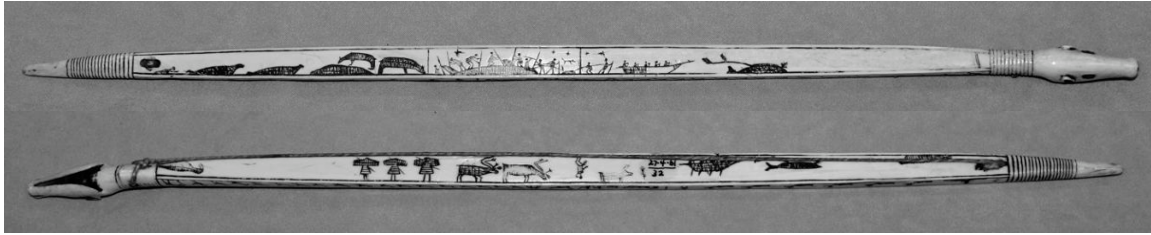


Fig. 227. Upper side of drill bow 27.4.61/32 collected by Cook.

Fig. 228. Lower side of drill bow 27.4.61/32 collected by Cook.

Extending from the left-hand side of the carved caribou head, the left drill bow side features additional motif clusters including three winged mythological creatures swimming to a mound upon which three smaller myth creatures climb (Fig. 229). Four caribou swim toward the myth creatures, followed by two ravens, a bow hunter aiming at a caribou, a single walrus with raised body, and a few jumbled lines incised deep enough to be the start of a motif. The drill bow's right side includes two elongated scenes divided by a central vertical line (Fig. 230). The left scene illustrates two cross-shaped birds behind a kayak hunter appearing to herd six swimming caribou to a standing figure. The right side portrays a figure pushing a sled pulled by a dog and figure holding an ice pick, followed by a second figure with a pick, another dog, and two crossed figures or wrestlers. Following the sled scene, a hunter wielding a club pursues seventeen probably molting ducks.



Fig. 229. Left side of drill bow 27.4.61/32 collected by Cook.

Fig. 230. Right side of drill bow 27.4.61/32 collected by Cook.

The drill bow acquired by Captain Cook in 1778 displays a number of characteristics linking the implement to other regional carving traditions. Specifically, the drill bow reflects the influence of decorative elements from East Cape and Indian Point, Chukotka and Point Hope, Alaska. First, the ivory used for East Cape drill bows appears finely scraped and polished with a smooth, creamy appearance. The drill bows feature straight planes and mostly four squared sides with finely etched bold motifs.²³² Crewmembers on early twentieth century British naval expeditions, including the HMS *Blossom*, collected the majority of drill bows with East Cape style engraving. On Cook's drill bow, East Cape style motifs appear mainly on the left and right hand sides.

A principal connection between Cook's drill bow and East Cape imagery includes the presence of small figures with gouged centers engaged in detailed scenes, such as traveling by dog sled over the ice. Both the sled scene on Cook's drill bow and a drill bow acquired by British dealer William Ockelford Oldman, depict sleds with thinly incised framework, small figures holding ice picks or whips, and dogs with raised tails and gouged centers (Fig. 231-232). The two bows illustrate both the Iñupiat style rectangular basket sled and Chukchi style sleds with curved runners and raised backs. Both types of sled construction appear on East Cape drill bows with a few examples of the two sled types on a single drill bow (i.e. Am.210). The presence of both sled types indicates an early twentieth century blending of Siberian Yup'ik and Chukchi cultures along the northeastern coastline.

²³² Little Diomedé drill bows also have squared edges but the bows tend to be shorter than those from East Cape. Likewise, the Little Diomedé engraving style includes less complex scenes with large motifs primarily darkened with wide square hatching.

Cook's drill bow also illustrates a kayaker hunting swimming caribou of a distinctive East Cape style, constructed with curved antlers and raised shoulders (Fig 233). Frederick W. Beechey acquired a drill bow with similarly formed caribou attempting to escape from kayak hunters in the water (Fig. 234). Beechey also acquired a drill bow with a swimming myth creature similar to the myths on Cook's bow, with a long neck, pointed muzzle and triangular ears (Fig. 235-236). The myth creature appears similar to Alaskan Yup'ik descriptions of a "palraiyyuk" or a walrus dog recorded by Edward Nelson while traveling in the Yukon-Kuskokwim area. Likewise, while in eastern Chukotka in 1902, Waldemar Bogoras acquired a carved antler creature similar to those on Cook's drill bow with a tail or flippers, long body, extended neck and pointed muzzle and ears (Fig. 237).²³³

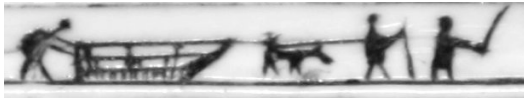


Fig. 231. Detail of dog sled on Cook drill bow.



Fig. 232. Detail of dog sleds on drill bow BM Am1949.22.22.



Fig. 233. Detail of swimming caribou on Cook drill bow.

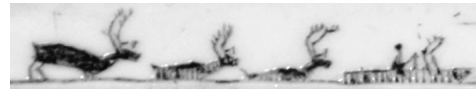


Fig. 234. Detail of swimming caribou on drill bow PR 1886.1.694.



Fig. 235. Detail of myth creatures on Cook drill bow.

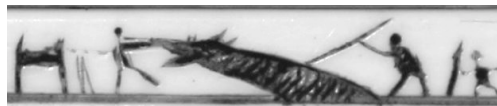


Fig. 236. Detail of myth creature on drill bow PR 1886.1.693.

²³³ Bogoras acquired the carved myth creature at Mariinsky Post along the Anadyr River in eastern Chukotka. The carver of the myth creature appears to have made two similar antler creatures collected by Bogoras including a seal (AMNH 70/6875) and a seal transformation figure (AMNH 70/6875).



Fig. 237. “Sea Bear” wood carving. L 11.5, W 1.5, H 3.3 cm.
Collected by Waldemar Bogoras. AMNH 70/6876.

In addition to the reflection of East Cape style imagery, Cook’s drill bow also shows an affinity with pictorial motifs from Indian Point in southeastern Chukotka. Indian Point style motifs appear on the upper and lower sides of Cook’s drill bow and include a distinct figure with a drilled head, square torso, bent knees and bushy tail (Fig. 238). An almost identical figure appears on a drill bow collected by Edward Nelson in which reindeer with dropped horns face a figure holding a staff and rope (Fig. 239). The figure with rope indicates a reindeer herder and denotes the diffusion of inland Chukchi herders to the eastern coast of Chukotka. Likewise, two styles of caribou or reindeer appear on Cook’s drill bow, a small motif with simple curved antlers (see Fig. 233) and a larger motif with weighty bodies and detailed antlers (see Fig. 228). The larger reindeer specifically compares to Indian Point style reindeer as seen on a drill bow acquired by Lucien Turner depicting reindeer with rectangular bodies darkened with dense cross-hatching, bent legs, angled heads, open square mouths, and composite antlers (Fig. 240). Both Cook’s drill bow and another Indian Point style bow acquired by Nelson feature large bearded seals with heavy bodies darkened with dense hatching, raised flippers, and small heads (Fig. 241-242).

One of the most distinctive motifs on Cook's drill bow includes a backside view of three figures dressed in slat armor carrying spears (Fig. 243).²³⁴ The triangular shield and hoop skirt appear nearly identical to figures wearing slat armor on the painted sealskin acquired by William Hulme Hooper at Indian Point in 1849 (Fig. 244). In Eastern Asia, slat armor emerges during the Punuk-Thule period and typically consists of a shield or vest made from wooden slats covered with bearded seal or walrus hide and a skirt constructed from hoops of a similar dried hide (Ackerman 1985) (Fig. 245).²³⁵ At a village south of East Cape in 1849, Hooper (1853:162) describes a suit of armor incorporating both local and imported materials, "It consisted of back and breast-plates of walrus hide, at least a quarter of an inch thick, and in some places double, a very board for toughness, having been dried gradually in the sun. Upon these were fastened flat and thin iron plates overlapping each other."²³⁶ Chukchi and Siberian Yupik warriors appear to have worn slat armor along the eastern Chukotka coastline as well as Big Diomedé and St. Lawrence Island (Hooper 1884; Oquilluk 1973). Sheldon Jackson collected a carved ivory figure wearing slat armor from St. Lawrence Island that appears to derive from the

²³⁴ Dorothy Jean Ray (1969:257) describes Cook's drill bow as the only example to depict Siberian slat armor leading her to conclude an Alaskan Native carver made the bow and chose to engrave an image of his Siberian neighbors. However, the similarity between the armor-wearing figures on Cook's bow and those on the sealskin painting from Indian Point reinforce my argument that Cook's drill bow originated from a Siberian Yupik village. Further, Siberian slat armor appears on four additional drill bows, see Appendix J.

²³⁵ Chukchi, Koryak, Siberian Yupik and Iñupiaq warriors all used various types of body armor incorporating bone and ivory plates, bearded seal hide, walrus hide and metal from Japan and southern Siberia, see Ernest S. Burch Jr., "War and Trade," in *Crossroads of Continents: Cultures of Siberia and Alaska*, William W. Fitzhugh and Aron Crowell (eds.) (Washington, D.C.: Smithsonian Institution, 1988), 227-240.

²³⁶ Ahmoleen, a local of Lorenne village south of East Cape, brought out the Chukchi armor and explained to Hooper that it was too heavy to be worn in combat (Hooper 1853:162). Ahmoleen's statement of the armor's impracticality suggests the armor originated from elsewhere, perhaps from a Chukchi trader to the south.

Punuk period (Fig. 246). Similarly, in 1881 Edward Nelson describes visiting St. Lawrence Island and admiring “pieces of armor of narrow strips of bone laced together in an overlapping series.”²³⁷



Fig. 238. Reindeer on Cook drill bow.

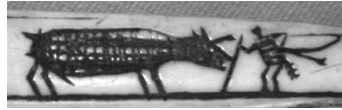


Fig. 239. Reindeer on drill bow NMNH E38782.

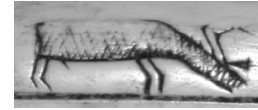


Fig. 240. Reindeer on drill bow NMNH E24554.



Fig. 241. Bearded seals on Cook drill bow.



Fig. 242. Bearded seals on drill bow NMNH E45346.



Fig. 243. Slat armor on Cook drill bow.



Fig. 244. Slat armor on painted sealskin PR 1966.19.1.



²³⁷ SIA, *Nelson Journals*, July 3, 1881. Nelson visited St. Lawrence Island shortly after the catastrophic famine of 1880-81 and notes that most of the 200 people in the village had died. Nelson took advantage of the apparently empty village to secure a “hastily made collection” consisting of the bone armor and various utensils, clay pots and wooden dishes. Otto Geist collected a similar ivory figure wearing slat armor from St. Lawrence Island in the 1920s, Cat No. UAMN 1-1926-0822.

Fig. 245. Armor shield. L 78.5 cm. NMNH E260564. Fig. 246. Carved ivory figure with
Slat armor skirt. L 85 cm. NMNH E280200. slat armor. St. Lawrence Island.
NMNH E316843.

Cook's drill bow relates to the pictorial traditions of Siberian Yupik peoples in southern Chukotka as seen by analogous motifs of slat armor, figures wearing tails, reindeer and large seals filled with dense hatching. Two additional characteristics of Cook's drill bow: an engraved umiaq with extended paddles and the carved caribou head, reflect stylistic influences from Point Hope, Alaska. First, Cook's drill bow illustrates two styles of umiaq with the bow's upper side depicting a slender boat aligned along the baseline, darkened at the stern, a harpoon extending from the bow, and five figures paddling on the left side (see Fig. 227). The second style of umiaq appears on the drill bow's lower side and consists of an umiaq "floating" on the surface, with curved bow and stern completely darkened with hatching and four figures paddling on the right with their paddles extending below the boat's hull (Fig. 247). This style perhaps originated in southern Chukotka as seen by several floating umiat with extended paddles on the sealskin painting collected by Hooper at Indian Point (Fig. 248). The particular manner of representing umiaq with paddles in the water took hold in Point Hope as seen on an engraved drill bow collected by Sheldon Jackson (Fig. 249) as well as the drill bow acquired fifty years earlier by Frederick Beechey (Fig. 186).²³⁸

In addition to similarly engraved floating umiat, Cook's drill bow relates to the Point Hope practice of carving caribou heads at the ends of drill bows and bag handles. Both Cook's drill bow and an antler drill bow acquired by Edward Nelson in Point Hope

²³⁸ Seven drill bows attributed to the Point Hope style of engraving feature floating umiat with paddles extended below the hull. The skin boats often appear in conjunction with large floating bowhead whales depicted in profile, see Chapter 7.

feature open mouths, incised nostrils, elliptical ears, blue beads inlaid into eye sockets and incised lines around the neck area (Fig. 250-251).²³⁹

During the twentieth century, carved caribou heads also appear on ivory arrowshaft straighteners collected from various locations within the Bering Strait (Nelson 1899). Beechey collected an early example of a double-headed caribou arrow straightener etched with nucleated circles and pronged lines (Fig. 252). The straightener retains one inlaid blue bead eye with four gouged areas on the front and back indicating the loss of additional beads. The arrow straightener probably originated in Point Hope as indicated by the implement's inclusion in Beechey's sketch and similar hollows for blue beads on Beechey's drill bow (see Fig. 73). The presence of a carved caribou head and etched umiaq with extended paddles on Cook's drill bow suggests an interaction with Point Hope villagers. The presence of multiple engraving styles on Cook's drill bow suggest the implement circulated among carvers linked to each other through a similar language, culture and ancient engraving traditions.



Fig. 247. Detail of whaling on Cook drill bow.

²³⁹ The carved caribou head on antler drill bow E63805 shares similarities with the Siberian Yupik practice of carving animal heads on the ends of drill bows and appears to derive out of the OBS tradition of molding ivory animals into implements. John Murdoch acquired an antler bag handle with a similarly carved caribou head while stationed at Point Barrow between 1881-83, Cat. No. NMNH E56513. Murdoch (1988:190) describes the handle as a “somewhat different pattern. One end is neatly carved into an exceedingly accurate image of the head of a reindeer which has shed its antlers, with small blue beads inlaid for the eyes... We were told that such handles were sometimes fitted into wooden buckets, but I never saw one so used.” Although Murdoch identifies the bag handle as coming from Cape Smythe, the handle's pattern of large etched squares filled with dense hatching relate to Point Hope engraving technique.



Fig. 248. Detail of whaling on drill bow SJM SJ-II-K-106.



Fig. 249. Detail of whaling on painted sealskin PR 1966.19.1.



Fig. 250. Detail of carved caribou head on Cook drill bow.

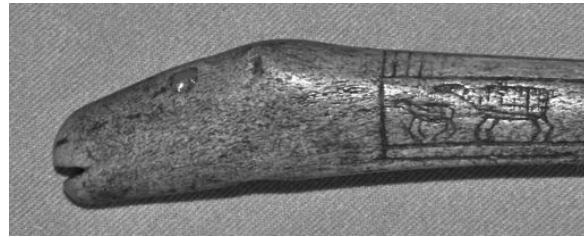


Fig. 251. Detail of carved caribou head on drill bow NMNH E63805.

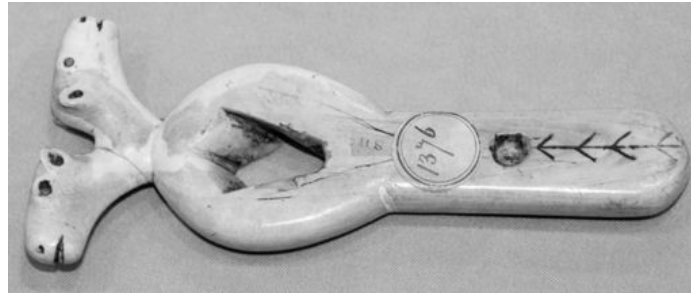


Fig. 252. Engraved ivory arrow straightener with carved caribou heads. BM Am.1376.

CHAPTER 7

BERING STRAIT REGIONAL STYLES OF ENGRAVED DRILL BOWS

Determining Regional Engraving Styles

At the time of manufacture, nineteenth century ivory carvers probably recognized micro-elements linking pictorial engraved implements to specific carvers within their village. During community-based work in 2012, many carvers demonstrated an ability to recognize older engraved pieces as belonging to local artists who carved during the generations of their fathers and grandfathers. Likewise, contemporary carvers can look at an ivory seal, polar bear or cribbage board and identify stylistic traits linking an object to a specific artist. For example, when visiting Maruskiya's gift shop in Nome, Jerome Saclamana (April 2012) readily pointed out examples of ivory work by past and contemporary carvers from King Island. Vince Pikonganna (April 2012:1) explains, "Over the years, you learn, you learn whose carving it is, by watching...today you can recognize people's carvings, who they are."

Identification of individual artists tends to dim outside originating locales but contemporary carvers express an awareness of stylistic attributes belonging to particular villages. During a collections visit to the Anchorage Museum, Levi Tetpon (June 2012:8) pointed out stylistic elements relating carvings to those of his father from Shaktoolik, as well to artists from St. Lawrence Island and King Island:

This is King Island. They still do that kind of thing [carving], this one right here. Like Robert Kokoluk...He leans more towards that style. More like Sylvester Ayek and John Penatac, those people. These are King Island, those right here, because that's their mask... And then, my dad would do [ivory] boats like that. And there's some St. Lawrence up there... There are people that are still alive that would know more than I do. They're older. And they've just been around longer.

In a similar manner, nineteenth century drill bow artists probably recognized general characteristics of regional engraving styles associating carvings to particular villages or nations.

Field collectors of engraved drill bows paid varying degrees of attention to recording provenience information (see Ch. 2, Table 1). Edward Nelson (1983:105-106) recorded the most specific locales identifying place names and villages such as “Cape Darby” and “Unalaklit.” In contrast, collectors for over half the drill bows in the study group recorded general attributions of “Alaska,” “Norton Sound,” or “Kotzebue Sound.” Further, ivory carvers traveled from outlying villages to trade with collectors but their home villages were not always recorded. For example, Nelson specifically describes collecting engraved drill bows from King Islanders visiting St. Michael but did not identify any drill bows as “King Island.”²⁴⁰ In a similar manner, drill bows labeled as “Kotzebue Sound” probably originated from a number of village groups who traveled to the region for summer fishing or the international trade fair at Hotham Inlet (Ray 1982:258). Thus, while recorded locations can provide insight into drill bow proveniences they also need to be scrutinized for collector biases and take into consideration the greater geographical, temporal and exchange contexts surrounding attributions.

To delineate late eighteenth to early twentieth century regional engraving styles, I used collector records as a starting point followed by in-depth style analysis focused on drill bow form, type of dark fill material, use of baselines, density of imagery, motif

²⁴⁰ SIA, *Nelson Journals*, August 19, 1877 (see Ch. 2). The King Island drill bows probably include E33180 and E48527 that Nelson recorded as “St. Michael” but with pictorial engraving related to the Cape Nome style practiced by King Islanders.

construction, etching techniques and quality of line. Likewise, I examined content of scenes in relation to ethno-historical information on village structures, activities and objects of material culture. Based on visual and textual data I identified fifteen Bering Strait pictorial styles related to each other through particular etching techniques and imagery (Fig. 253). Pictorial styles from Chukotka include: Indian Point and East Cape; in Alaska: Point Barrow, Point Hope, Hotham Inlet, Cape Prince of Wales, Little Diomedé, Sledge Island, Cape Nome, Cape Darby, Unalakleet, St. Michael, Pastolik, Nome, and Modern. Appendix D groups the drill bows according to regional engraving styles and offers a visual overview of morphological and stylistic traits.

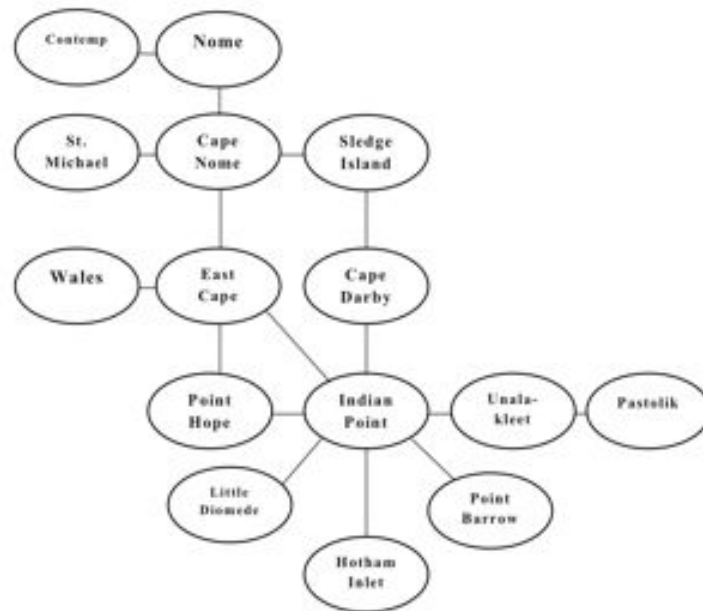


Fig. 253. Stylistic relationships between Bering Strait pictorial engraved drill bows.

Drill Bow Techniques and Materials

Drill bow motifs indicate construction from two primary methods of etching. To create symmetrical circles, such as round heads on figures, carvers appear to have rotated

a wood drill with an iron bit using a drill bow for propulsion. Next, carvers probably held wood drills as one would an ancient ivory engraving tool, using the iron bit to draw outlines and fill in motif centers. In a similar manner, drill bow engravers also used carving knives and three-cornered files as styluses, pressing pointed ends down into the ivory (Hoffman 1897:785).

Drill bow carvers rubbed a variety of dark material into engraved motifs to make them stand out against the creamy ivory background. Lucien Turner describes a black fill composition of powdered charcoal from burnt grass mixed with oil (Hoffman 1897:790). Edward Nelson (1983:196) states ivory engravers use a mixture of gunpowder and blood to darken their motifs while John Murdoch (1988:390) notes that in Point Barrow the dark color derives from soot or red ocher. Jerome Saclamana (April 2012) remarks seal oil lamps in the past would have generated soot that carvers could apply to their etchings. Saclamana also explains older King Island carvers used cigarette or tobacco ash for engraving fill and remembers his uncles licking their thumbs before dipping them into the ashtray and rubbing them over motifs.

The majority of engraved drill bows in the study group include a soot or ash-based dark fill. Different colors of soot and fineness of particles assist in delineating regional styles of drill bows. For instance, drill bows with Hotham Inlet style engraving reveal a predominance of coarse dark brown soot, which enlarged, appears as particles of varied size and shape. In contrast, drill bows with East Cape style imagery feature a super fine almost black ash.

Seven drill bows incorporate red coloring with brown soot to fill in motifs. Turner posits the red color as a late nineteenth century introduction by traders but Nelson

maintains the red as a local coloring derived from red ocher (Hoffman 1897:790; Nelson 1983). Ross Schaeffer (April 2010) describes a red coloring from Kotzebue Sound made from the bark of red alder mixed with water. Farther north, Henry Koonook (April 2010:1) gathers red ocher from around Point Hope and explains the process he uses to crush and apply the pigment:

We know it as it *ivusug* [red ocher] and it comes reddish color and it's like a clay. It is actually clay. I use it to paint my driftwood masks . . . I can use it on basket sleds . . . And you can also use it on the one-man canoes or two-man canoes because it also becomes a wood preservative. It makes a real pretty color on the wood too. Brick red . . . We have lots of this up the river. Easy access. And when I use it, I crush it. And I either mix it with water for a lighter color but most of the time I use whale blood, any kind of sea mammal blood. It's soft and wet.

Several nineteenth century explorers noted the widespread use of plumbago, or lead, among Bering Sea villages and attributed it to trade as well as to the presence of the mineral in local areas (Beechey 1968:367; Hooper 1853:139; VanStone 1985:155). Fifty-four drill bows in the study group use full or partial lead fill to darken etched motifs. Lead fill on drill bows appears dark gray to almost black with fine particles of uniform shape and size that sometimes give off a metallic sheen when tilted into the light. George Byron Gordon identifies the use of both soot and lead within an early twentieth century process of engraving ivory:

The only tool used in engraving is a steel point ground out of a piece of file or a broken knife blade. By means of this implement, fine lines are cut to the proper depth, and the finished drawing is rubbed with soot mixed with oil, to fill in the lines and bring out the design in black. Sometimes the point is used without any preliminary outlines to guide the eye and sometimes the main features of the picture are first sketched in by means of a fragment of graphite or by light scratching. A bit of lead pencil, a recent acquisition, is often found in the outfits of the best artists and is now frequently used in blocking out the picture or in sketching lines to be traced later by means of the point. (Gordon 1906:80-81)

Engraved drill bows with soot and lead include the disadvantage of drying up with chunks falling out or wearing off with extended use. Carvers sometimes replenished the motifs with additional fill, indicated by drill bows with multiple hues of soot (i.e. drill bow BM Am.9367).²⁴¹

During the early twentieth century, ivory engravers often relied on black India ink to darken their motifs. Sixteen drill bows in the study group include black ink, which enlarged, appears as a fluid and solid color. Black ink fill on ivory can also be identified by light “staining” around the edges of engraved motifs, similar to how a fountain pen bleeds on rag paper. The majority of drill bows with black ink feature Nome style of engraving created primarily for the tourist market. Adoption of India ink allowed ivory carvers to quickly fill etchings and buff off the extra with uniform results. Contemporary ivory carvers continue to darken engraved imagery with India ink, usually applied with a fountain pen, toothpick or cotton swab (Gary Sockpick June 2012; Jerome Saclamana April 2012; Matthew Tiulana April 2012).²⁴²

Baselines and Directionality

Over three-fourths of the drill bows examined include baselines either incised along the lower or upper edges or through the center. A few drill bows use lines to divide imagery into scenes or panels in a manner similar to engraved ivory pipes from Norton Sound. Like the motifs they enclose, baselines vary in width, depth and execution. For example, baselines on drill bows from Hotham Inlet tend to be broad and deep with a

²⁴¹ Soot and ash rubbed into drill bow engravings continues to fall out even when not in use as evidenced by sediment in museum storage boxes.

²⁴² Contemporary carvers also use black permanent markers to darken etched lines or block out areas (John Heffle May 2012).

heavy, dark appearance. In contrast, drill bows from East Cape and Cape Prince of Wales tend to have baselines that are thin and shallow resulting in a more delicate appearance. Many cylindrical drill bows from Point Hope and Point Barrow do not have baselines and as a result motifs appear unanchored and float across the surface.

Etching straight baselines into ivory drill bows would have required a sharp metal bit and steady hand. The majority of baselines appear unbroken testifying to the carvers' skill. Baselines were probably the first element to be engraved on a drill bow as indicated by the construction of motifs over rather than under lines. Many carvers also used upper and lower baselines as two horizon lines to engrave opposite facing scenes. Upside down imagery often represents a scene continuation from one side to the next and carvers "reading" or sharing engraved stories could have rotated the drill bows around similar to flipping pages of a book.

Technically, baselines serve as a form of ruler or guide to create straight rather than tilting scenes. Baselines can also be conceptualized as a spatial boundary enclosing motifs between inner and outer realms. For example, lower baselines can be viewed as anchoring motifs to the ground and the realm of physical activities such as hunting and fishing. In contrast, upper baselines bound the skies and perhaps a spiritual realm represented by engraved mythical creatures and floating horizontal figures (see Appendix F, "Legends" and "horizontal figure").

Etching Techniques

Bering Strait drill bow engravers used a variety of etching techniques to incise the centers of motifs so imagery would retain dark fill material such as soot, lead or ink. The most prominent technique includes engraving a series of vertical lines that appear packed

densely together or spaced widely apart. In a similar manner, carvers etched dense and loose horizontal lines using short repetitive strokes. Another popular technique includes a gouge fill in which the center of a motif is simply scooped out. Hatching can also be dense or loose and etched in various directions. For example, Little Diomedede imagery features characteristic open square hatching while Point Hope motifs generally include centers darkened with dense scribble hatching. Drill bows from Indian Point and Point Hope also comprise a barbed etching technique that appears as triangular ticking used to darken the centers of motifs. This latter technique links to OBS graphic designs and the application of barbed, spurred and pronged lines to the contours of ivory carvings. Distinct combinations of etching techniques and motif construction help to delineate carving traditions and are described in detail under each regional engraving style.

Content of Scenes

In addition to the formal and stylistic properties of engraved drill bows, I examined content of scenes in relation to ethno-historical information on particular village activities and objects of material culture. For example, several drill bows have recognizable structures such as the ACC trading post as St. Michael and the Native village on King Island with raised summerhouses covered in walrus skins located on the side of the rocky Island (Figs. 254-256). Likewise, Bering Sea communities differed in their constructions of kayaks and illustration of these variations on drill bows assists in delineating regional proveniences (Figs. 257-258, Table 6). Combining textual and visual data I mapped out relationships between the fifteen identified Bering Strait

engraving styles which link to one another through both content and style of imagery (Fig. 258).

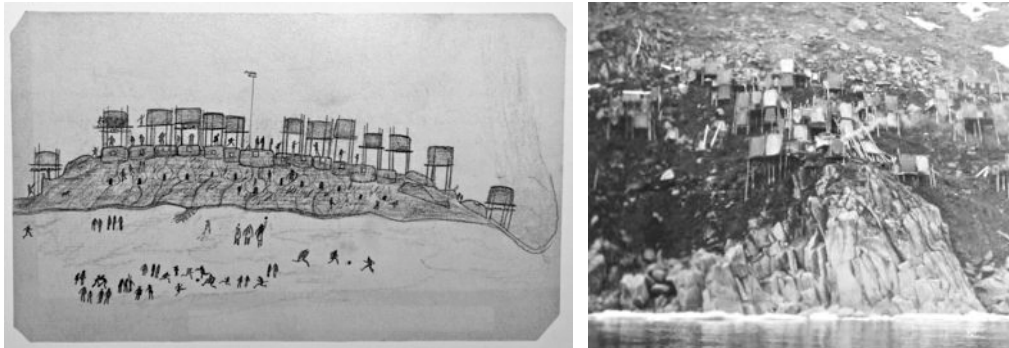
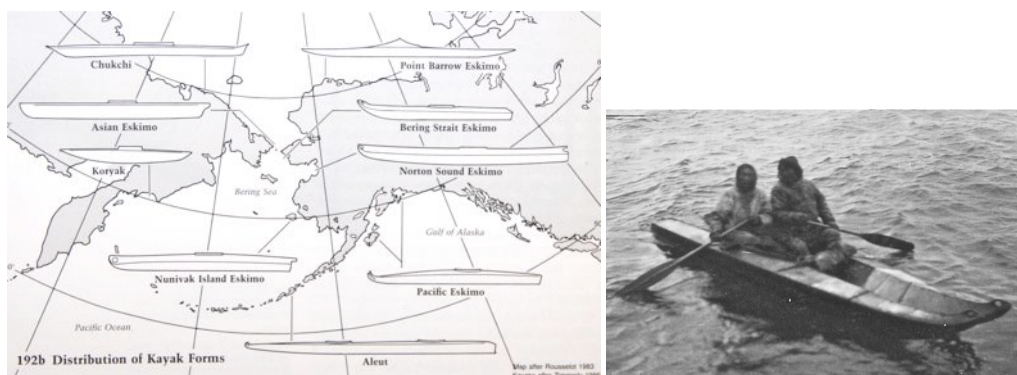


Fig. 254. Illustration of a Bering Strait village with people visiting, playing ball, and wrestling. 1902. Pencil and colored pencil on paper. L 12.3, W 20.2 cm. Alaska State Library, James Wickersham Papers, MS 107-73-6-28 (from Ray 2003:23).²⁴³

Fig. 255. “Native Village, King Island.” Detail of photograph by Daniel Neuman, 1911-1920. Alaska State Library, Historical Collections, ASL-P307-0250.



Fig. 256. Winter and summer houses on King Island engraved on ivory drill bow PR 1884.68.21.



²⁴³ Ray (2003:23) identifies this scene as “E-too-ach-in-na” and attributes the image to a Native village where Teller now stands. However, Teller is located on a flat spit and the pencil illustration depicts a village located at the top of a cliff with small figures climbing up the rocky sides. The illustration’s combination of sod structures and square houses at the top of a hill appears to more accurately reflect the Native village on King Island.

Fig. 257. Distribution of kayak forms throughout the North Pacific and Bering Sea (from Fitzhugh and Crowell 1988:159).

Fig. 258. “Birdarkas, at Kings Island.” King Islanders sitting across two Bering Strait style kayaks. Photograph in an album compiled by Alfred L. Broadbent aboard the U.S. Revenue Cutter *Bear*, 1891. Courtesy Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, WA Photos 63, object id 10001586.

Table 6. Kayak forms engraved on ivory drill bows.





			
Am1949.22.23 Point Barrow (left); Bering Strait (right)	12587 Koryak	E24556 Aleut/Norton Sound Hybrid	2-1425 Norton Sound



Fig. 259. Map of Northwest Alaska and Siberia with related pictorial engraving styles.

Multiple Carvers and Styles

As noted in the Introduction, ninety-one drill bows, almost one-third of all those examined, show evidence of more than one carver engraving on a single bow. While some secondary etchings appear related to primary motifs, other drill bows include two or more disparate engraving styles. Multiple engraving styles suggests drill bows were passed among villages, possibly during trading fairs or summer camp sites such as Port Clarence, with additional carvers etching motifs either for personal enjoyment or to enhance a bow before attempting to trade it (Fig. 260).



Fig. 260. “Esquimo Camp at Port Clarence.” Photograph in an album compiled by Alfred L. Broadbent of the U.S. Revenue Cutter Service in Alaska and Siberia, 1885-1892. Courtesy Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, WA Photos 397, object id 2019834. Captain Michael Healy pictured sitting and probably trading with a group of Siberian Yupik and Iñupiat summer travelers to Port Clarence.

To illustrate, drill bow NMNH E44209 includes imagery related to three regional engraving styles (Fig. 261a). First, a narrow side depicts small motifs with gouged centers including a row of swimming caribou related to motifs from East Cape where the bow probably originated (Fig. 261b). Next, the wide, convex side illustrates a large figure wearing a tail, holding a rifle, and hunting a long line of caribou darkened with wide-square hatching in the manner of Little Diomedede style engraving (Fig. 261c). Following

the row of hatched caribou are six small and delicate caribou analogous with St. Michael engraving (Fig. 261d). The engraver of the diminutive caribou probably represents the final carver to acquire and add motifs to the bow before selling or trading the implement to Edward Nelson between 1877-1881. As seen on drill bow E44209, an internal trade for engraved drill bows appears to have existed between Bering Strait communities resulting in the presence of more than one engraving style on a single drill bow. Thus, drill bows should not be read simply as “Little Diomedé” or “St. Michael” but closely examined to peel back layers of their social biographies.

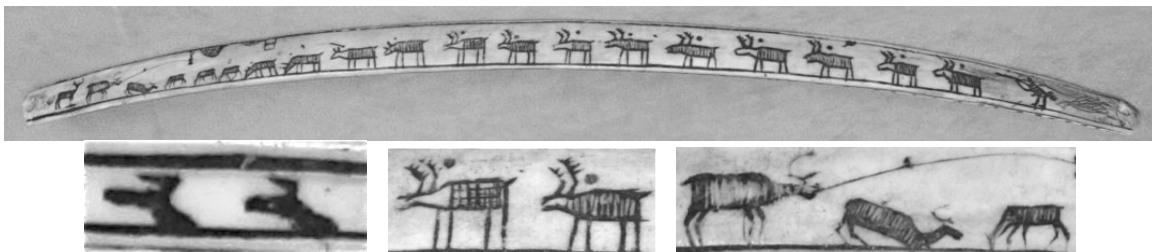


Fig. 261a-d. Ivory drill bow with three styles of engraved caribou; from left to right: East Cape, Little Diomedé, St. Michael. NMNH E44209.

Indian Point, Chukotka



Fig. 262. “Dog sled pram at Indian Point, Siberia.” The photograph depicts an Indian Point villager sitting on a Chukchi style dog sled in front of a yurt and watching two whaling ships in the distance. 1888. National Anthropological Archives, Smithsonian Institution, NAA INV 04121500.

Drill Bows

24 (1886.1.695, 1969.34.9, Am1855.1126.225, Am1855.1126.226, Am1855.1220.229, Am.6745, 2-1291, 2-4123/E24419, 2-4124, 2-4127, 33.238, E24537, E24540, E24546, E24554, E24556, E33184, E33186, E33190, E33191, E38782, E45346, E313717, 97-84-457a)

Village Distribution

A group of drill bows that appear to have been made by Siberian Yupik carvers from the southern coastline of Chukotka to Indian Point and possibly nearby St. Lawrence Island. Indian Point is a spit approximately forty-two miles from the northwestern corner of St. Lawrence Island (Ackerman 1985:107) (Fig. 262). Western travelers often referred to the village at Indian Point as “Chaplino” while Siberian Yupik locals described the village as “Oongwysac” or “Uñi-sak” (Bogoras 1904; Hooper 1853:106).²⁴⁴

Collection History

Drill bows engraved with pictorial styles related to Indian Point and southern Chukotka stem from two main groups of collectors: early British explorers to the Bering Strait; and Smithsonian ethnographers and Alaska Commercial Company agents stationed at St. Michael.²⁴⁵ A regional attribution for this group derives from a recorded provenience of “Indian Point” for drill bow 97-84-457 as well as the presence of

²⁴⁴ Native peoples from Indian Point and St. Lawrence Island shared a lengthy history of interaction resulting in similar dialects of Central Siberian Yupik, see Anthony C. Woodbury, “Eskimo and Aleut Languages,” in *Handbook of North American Indians, Volume 5, Arctic*, David Damas (ed.) (Washington, D.C.: Smithsonian Institution, 1985), 49-63. The village of Chaplino was closed in 1958 with the population resettled along the Siberian coast (Hughes 1985:247).

²⁴⁵ Unless otherwise noted, information on drill bow acquisitions in each region’s “collection history” derives from associated museum records.

engraved reindeer, herders, and Punuk-Thule elements such as barbed bands and nucleated circles.

While searching for the Northwest Passage in 1826, HMS *Blossom* crewmembers Frederick W. Beechey and Edward Belcher obtained two drill bows (1886.1.695, 1969.34.9) engraved in a style emanating from Indian Point. During 1848, William Hulme Hooper of the HMS *Plover* traveled the Chukotka coastline from Indian Point to East Cape and acquired drill bows Am1855.1126.225 and Am1855.1126.226, the former with multiple engraving styles from southern Chukotka. The British Museum received drill bow Am1855.1220.229 in an 1855 donation from the Lords of Admiralty and in 1870 received drill bow Am.6745 as a donation from British engineer William Bragge. The Malborough College, founded in 1843 in Wiltshire, England, donated drill bow 33.238 to the Horniman Museum at an unknown date.

Lucien Turner acquired five drill bows in the Indian Point style during 1874-76 and recorded their provenience as Norton Sound (E24537, E24540, E24546, E24554, E24556). During his stay in St. Michal, Turner also collected the right half of a broken drill bow (E24419) with a row of carved seal heads along the upper edge while Rudolph Neumann of the ACC acquired the left half of the drill bow (2-4123). Neumann also obtained two other Indian Point style drill bows (2-4124, 2-4127) and fellow St. Michael collector Edward Nelson picked up six drill bows with similar pictorial engraving (E33184, E33186, E33190, E33191, E38782, E45346). ACC agent Charles Hall acquired a three-piece bow drill set consisting of a newly made wood hearth and drill paired with an old ivory drill bow (2-1291) with disparate motifs related to Indian Point and St.

Michael. Finally, in 1920 the Smithsonian received drill bow E313717 collected by Rev. Admiral William Hemsley Emory of the U.S.N. from St. Michael.



Fig. 263. Ivory drill bow with Indian Point style engraving. PENN 97-84-457.

Form and Use Wear

Indian Point style drill bows tend to be rectangular with angular sides. A distinguishing morphological trait includes carved animal heads (caribou, polar bears and wolves) on the ends of seven drill bows. For example, drill bow Am.6745 features a carved caribou head on the end with small triangular ears, engraved mouth and drilled eyes (Fig. 264).²⁴⁶ Likewise, drill bow E33191 includes a carved caribou head with an open mouth, elliptical ears, nicked spots, and barbed bands that encircle the neck area (Fig. 265). Drill bows E33191 and E313717 each have one end broken off and 4123/E24419 broke in half before being collected by Neumann and Turner. Surfaces typically show moderate use wear with smudged areas and build up of soot within cracks. Twelve drill bows retain full or partial bearded sealskin straps of a particular wide width.



Fig. 264. Engraved ivory drill bow with carved caribou head. BM Am.6745.



Fig. 265. Engraved ivory drill bow with carved caribou head and barbed bands. NMNH E33191.

²⁴⁶ The carved caribou head on drill bow BM Am.6745 also features a hole through the ear area that might have functioned as a secondary hole for a drill bow strap or an opening by which to string the bow onto rope for carrying.

Engraving Style

The twenty-four drill bows with pictorial engraving linked to Indian Point and southern Chukotka divide into two clusters roughly related to the two groups of early and late nineteenth century collectors. The first cluster includes six rectangular ivory drill bows with dominant scenes of caribou and bowhead whaling comprised of small dark motifs featuring rough outlines and gouged centers or dense vertical lines filled with black soot (Am1855.1126.225, Am1855.1126.226, Am1855.1220.229, Am.6745, 2-1291, 33.238). Two drill bows (Am1855.1126.225, 2-1291) also depict lightly incised figures with stooped bodies and droopy arms linked to an earlier Birnirk engraving style along the southern Chukotka coastline (see Ch. 6, Fig. 223). The first cluster of six drill bows link to a later style from Indian Point through the inclusion of carved caribou heads (Am.6745, Am1855.1126.226), barbed bands (33.238, 2-1291), figures with rectangular torsos (Am1855.1220.229), and an overall emphasis on caribou or reindeer. The second larger cluster comprises eighteen drill bows that exemplify the Indian Point style of pictorial engraving. Characteristics of the second cluster are described in the following section.

Appearance: Drill bows of a golden ivory hue engraved with rows of evenly spaced animals darkened with dense hatching (Table 7).

Content: Predominance of animals in rows including caribou or reindeer on two-thirds of the Indian Point drill bows. Other drill bows include rows of seals, caribou skins, wolves, ducks, whales and walrus. About one-third of the bows depict figures hunting the rows of reindeer, whales and walrus.

Lines and Fill: Motifs feature moderately deep incisions that appear pushed into the ivory producing an appearance of soft or rounded outlines. Dense diagonal or square hatching fills the majority of motif centers with a few motifs darkened with vertical lines. Etched scenes are rubbed with dark brown to black soot.

Table 7. Pictorial elements of Indian Point engraving style.








						
E38782	2-4124	2-4124	E33190	1886.1.695	E24554	97-84-457

Figure: Figures are sparse and typically appear as a single motif paired with a row of animals or a few figures placed within a hunting scene. Large figures depicted with drilled heads and square or triangular torsos filled with horizontal lines joined to thin, bent arms and legs. Four drill bows include figures wearing animal tails while hunting and herding reindeer.

Umiat: Only three drill bows include umiat and all are in the process of hunting bowhead whales. Umiat feature high sides filled with dense square hatching and carry four to six figures with gouged bodies and raised arms.

Kayak: Two distinct forms of kayaks including one example of triple-hatch kayaks with curved bows of an Alutiiq/Norton Sound hybrid construction on drill bow E24556 (see Table 6).²⁴⁷ The second characteristic form includes pairs of single-hatch

²⁴⁷ Multi-hatch kayaks are normally associated with Alutiiq culture and travel. See David W. Zimmerly, *Qajaq: Kayaks of Siberia and Alaska*, (Seattle: University of Washington Press, 1986). However, the presence of multi-hatch kayaks in Norton Sound was not that unusual during the nineteenth century. While in St. Michael, Edward Nelson went on several collecting excursions in a triple-hatch kayak as noted in his journal entry from May 26, 1877, “Went out in the afternoon in a three-holed *bidarkie* for the first time. I can testify to the pleasure one has in gliding rapidly along through the water - or rather in the water - in one of these boats which although so frail that in passing over kelp beds the frame work and skin can be felt yielding to the long leaves as we pass over, and the long swells bend the boat from stern to stern yet so elastic and strong are they that it requires a heavy sea to deter the hardy natives from going about in them

kayaks joined together hunting walrus as seen on drill bows E33190 and 2-4124 (see Table 7). The paired vessels and remaining examples of kayaks appear to be of Asian Eskimo or Siberian Yupik construction with long frames, diagonal sterns and slightly curved bows.

Whale: Bowhead whales commonly depicted as whole subjects that appear to float across the surface or are engraved in profile along the lower baseline. Whales feature raised flukes and large bodies filled with dense square hatching.

Walrus: Walrus feature long curved bodies that taper at the neck and swell to the top of the head. Walrus bodies are typically filled with square hatching divided by a deep horizontal centerline.²⁴⁸

Caribou: Large reindeer or caribou with stocky bodies darkened with dense hatching, short legs bent at the knees, long necks angled downward, and an interrupted outline at the muzzle creating a squared open-mouth appearance. Reindeer depicted with multi-spur antlers or short nubs indicative of males who have shed their antlers after fall breeding season or females who shed their antlers after calving in the spring (see Ch. 6, Figs. 239-240).

Dwelling: Drill bows from Indian Point characterized by an absence of complex village scenes. Two drill bows feature a single conical tent (2-4124, 1886.1.695) and two drill bows depict a single sod house with peaked roof and entryway (97-84-457, E45346).

or rather in the still smaller one- or two-holed *bidarkies*." SIA, *Nelson Journals*. Likewise, in 1882 collector Johan Adrian Jacobsen (1977:116) rented a pair of kayaks in St. Michael including a small kayak with a single hatch and a longer one with three hatches.

²⁴⁸ An Indian Point style walrus with a distinct horizontal line and square hatching also appears on drill bow HM 27.4.61/32 collected by Captain James Cook.

Graphic: Indian Point drill bows link to earlier OBS cultures through the incorporation of barbed and pronged lines and nucleated circles. Eight drill bows include barbed lines: around carved animal heads (i.e. E313717), as divisions between pictorial scenes (i.e. 33.238), encircling a lash hole (2-4124), and used as baselines (1969.34.9). Four drill bows feature pronged lines and two drill bows include nucleated circles.

East Cape, Chukotka



Fig. 266. “Houses and Natives of East Cape, Siberia.” Photograph by Alfred L. Broadbent in an album of the U.S. Revenue Cutter Service in Alaska and Siberia, 1885-1892. Courtesy Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, WA Photos 397, object id 2019834.

Drill Bows

12 (27.4.61/32, Am1855.1126.227, Am1949.22.22, Am1949.22.23, Am1970.06.1, 1886.1.692, 1886.1.693, 1886.1.694, SJ-II-X-224, E45016, E45333, NA9387)

Village Distribution

A distinct group of drill bows that appear to have been engraved by Siberian Yupik carvers from the village of Uelen and possibly also the village of Naukan located at East Cape on the northeastern Chukchi Peninsula (Hughes 1985:248) (Fig. 266).

Collection History

British collectors acquired the majority of East Cape style drill bows with six documented acquisitions before 1860. As described in Chapter Six, Captain James Cook made the earliest collection of an East Cape drill bow in 1778 (27.4.61/32). Close to fifty years later, Captain Frederick W. Beechey obtained three drill bows with similar small, bold motifs (1886.1.692, 1886.1.693, 1886.1.694) (Fig. 267). Between 1848-54, Mr. Spark of the HMS *Rattlesnake* crew collected drill bow Am1855.1126.227 while searching for Sir John Franklin in the Bering Strait.²⁴⁹

Edward Nelson collected two drill bows (E45016, E45333) in the East Cape style between 1877-1880. The Sheldon Jackson Museum acquired drill bow SJ-II-X-224 by 1895 and in 1922 the University of Pennsylvania Museum purchased drill bow NA9387 from Walter S. Wheeler. In 1949 the British Museum purchased drill bows Am1949.22.22 and Am1949.22.23 from the dealer William Ockelford Oldman and in 1970 bought drill bow Am1970.06.1 from the Salisbury & South Wiltshire Museum.



Fig. 267. Ivory drill bow with East Cape style engraving. PR 1886.1.694.

Form and Use Wear

East Cape drill bows are of rectangular form with squared edges. Bows typically feature one wide elliptical lash hole at each end and only one drill bow has double lash

²⁴⁹ Drill bow Am1855.1126.227 depicts Westerners working a forge and might represent the crew of the HMS *Rattlesnake* (Ray 1982:257). On August 22, 1853, the HMS *Plover* under the command of Rochfort Maguire met the *Rattlesnake* sailed by Henry Trollope at the entrance of Port Clarence. The *Rattlesnake* received instructions to serve as a depot ship during the winter and headed north to Grantley Harbor where Trollope was instructed to build a structure large enough to house seventy men (Maguire 1988:44).

holes (Am1970.06.1). Bows show minimal use wear with smooth surfaces, few scratches, and dark soot fill. Only drill bow 27.4.61/32 collected by Cook retains a strap, which is made from braided caribou sinew.

Engraving Style

Appearance: Smooth, light-colored ivory drill bows with straight edges engraved with small motifs arranged in scenes of spring hunting and summer activity (Table 8).

Content: Primary scenes of whaling, hunting walrus, swimming caribou, summer camp, and smoking a pipe; secondary scenes of dancing, myth creatures and Westerners. Drill bows also depict emblems of Chukchi and Siberian Yupik material culture including yurts and curved sleds.

Lines and Fill: Drill bows include thin straight baselines filled with dark soot. Scenes distinguished by balanced compositions of small motifs with straight outlines that are primarily darkened by gouging out the centers or etched with dense vertical lines.

Table 8. Pictorial elements of East Cape engraving style.



Figure: Diminutive figures with round, drilled heads, elliptical gouged torsos and thin arms and legs. Figures often shown holding an object including: pipes, ice picks, harpoons, spears, dog whips, bows, paddles, drums, wolf tails and animal bladders.

Umiat: Umiat appear low and narrow with straight stern and elongated bow. Sides typically feature white and dark panels with the latter filled in with dense vertical lines. Drill bow 1886.1.694 includes a row of travelling umiat with inverted triangular

sails watched by barking dogs on the shore (see Ch. 8, Fig. 330). Western ships appear on two drill bows with umiat paddling out to trade (E45333, NA9387).

Kayak: Kayaks commonly feature straight sterns and raised bows in the Bering Strait style of construction. Drill bow 1886.1.692 includes elongated kayaks similar to Chukchi construction and drill bow Am1949.22.23 depicts a Bering Strait kayak next to a Point Barrow kayak with a raised and angled cockpit rim (see Table 6).

Dog Sleds: East Cape drill bows include both rectangular Iñupiat sleds and curved sleds associated with Siberian cultures. Five drill bows depict curved dog sleds with figures using whips in a manner associated with Siberian travel (Hooper 1853:56; Spencer 1985:281) (Table 9).²⁵⁰

Table 9. Examples of Chukchi style sleds engraved on East Cape drill bows.



Whale: Bowhead whales are depicted long and low across baselines with dense feather spray and bodies darkened with vertical lines.

Walrus: Walrus illustrated sunning on their backs or being hunted on the ice and in the water. Walrus typically feature long necks with small heads, elongated bodies and short tusks.

²⁵⁰ Siberian Yupik peoples appear to have adopted the use of Chukchi sled construction by the middle of the nineteenth century. The assimilation of curved sleds along the eastern Chukotka coastline is captured in a story recorded in 1900 by Waldemar Bogoras (1910:62) from a Maritime Chukchi or Siberian Yupik man in the village of Mi'sqan, "U'mqäqäi and his two companions were in the Telqä'p land driving their reindeer, came to a spot with three houses, tied up their reindeer with the young walrus hide thong [traces]; in one of the houses, "One ke'le-man was working on the curve of a sledge runner. He was bending it quite a little." The inclusion of curved sleds on this group of drill bows reinforces a provenience of Siberian Yupik villages at East Cape.

Caribou: Caribou depicted grazing in rows, swimming in the water and being hunted by kayakers, and pursued by hunters on land with bow and arrow. Caribou have straight outlines, slender bodies darkened with barbs or dense vertical lines and curved antlers with short barbs.

Dwelling: Predominance of triangular tents darkened with vertical lines or cross-hatching. A few examples of small sod houses accompanied by short open caches are etched on the ends of drill bows. Chukchi style yurts of dome-shaped construction appear on drill bow 1886.1.694 (see Fig. 267).

Graphic: Very few graphic elements. Drill bow Am1949.22.22 uses a barbed band as a vertical baseline for a swimming caribou (see Ch. 6, Fig. 202).

Point Barrow



Fig. 268. Group from Cape Smythe in front of the U.S. Signal Service Station at Point Barrow. Photograph by Patrick Henry Ray, 1881-1883. Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks, UAF-1983-162-9.

Drill Bows

Point Barrow: 21 (60/2123, 60.1/299, 60.1/934, AmSt.763, Am.9369, 12587, IV-X-887, 66-25-10/44182, 94-57-10/R105, SJ-II-Y-17, SJ-II-Y-58, 2142, E44207, E44365, E44618, E89420, E89421, E89424, NA457, NA4488, 41428)

Point Barrow II: 21 (60/5826, 60/6241, IV-E-51, 177755, 94-57-10/R106, 98-18-10/52140, SJ-II-V-125, 55597, 55598, E33182, E33187, E46054, E48519, E48522, E48521, E48524, E63802, ET1076-1, E154071, E398234, NA455)

Village Distribution

Drill bows associated with a Point Barrow style of pictorial imagery mainly derive from the Iñupiat villages of Nuvuk at Point Barrow and Uglamie at Cape Smythe in addition to a few associated examples from the villages of Otok-kok at Icy Cape and Kuñmeum at Wainwright (see esp. Brower 1994; Maguire 1988; Murdoch 1988) (Fig. 268).

Collection History

Point Barrow style drill bows comprise a variegated acquisition history from museum expeditions and exchanges to private acquisitions and auctions. Museum and collector records identify thirteen drill bows in this group as originating from Point Barrow and nearby Cape Smythe helping to establish a stylistic attribution of “Point Barrow.” First, between 1860-69, Henry Christy acquired engraved drill bow AmSt.763 with a lightly incised hunter and seal possibly originating east of Barrow from an Inuvik village in the Northwest Territories of Canada. Dr. William Sparrow Simpson made an early acquisition of a Point Barrow style drill bow (Am.9369), which he donated to the British Museum in 1875. Fur trader and ACC agent Francois Mercier acquired drill bow IV-E-51 in the St. Michael vicinity between 1868-85.

Between 1877-81, Edward Nelson collected eleven drill bows with Point Barrow imagery (E33182, E33187, E44207, E44365, E44618, E48519, E48521, E48522, E48524, E63802, ET1076-1). Within Nelson’s acquisitions, drill bow E48519 provides

an important link to Point Barrow as the bow depicts umiat arriving at the U.S. Signal Service Station at Point Barrow with a ladder leading to the observation tower and a building with identical placement of doors and weathervane as the original structure (Figs. 269-270).²⁵¹ In 1880, William H. Dall donated drill bow E46054 to the Smithsonian with information that T. H. Bean collected the bow at Port Clarence. During the International Polar Expedition to Point Barrow between 1881-83, John Murdoch and Patrick H. Ray acquired engraved drill bows E89420, E89421 and E89424. California collector and philanthropist Frederick H. Rindge obtained bows 94-57-10/R105 and 94-57-10/R106 sometime between 1875-1885. In 1892 Mildred McLean Hazen donated drill E154071 to the Smithsonian and in 1894 the Field Museum purchased drill bow 12587 from E. O. Stafford of Milwaukee, WI. Sheldon Jackson picked up drill bows SJ-II-Y-58 and SJ-II-Y-17 accompanied by a seal-shaped mouthpiece between 1887-1902 while Reverend Samuel Spriggs, missionary in Point Barrow from 1899-1908, acquired drill bow SJ-II-V-125.

Between 1898-1904, Miner Bruce managed to sell Point Barrow style drill bows to the Peabody Museum (98-18-10/52140), the AMNH (60/2123), and to George Heye (2142). George Byron Gordon acquired drill bows NA455 and NA457 in 1905 while on an expedition to Alaska. In 1906 the AMNH received drill bow 60/5826 collected by George T. Emmons as part of a museum exchange and probably drill bow 60/6241 as well although it lacks documentation. Floyd Fellows obtained drill bow E398234 while at

²⁵¹ Ray (1982:264) suggests the buildings on drill bow E48519 represent those of the 1866-67 Western Union Telegraph Expedition headquarters at "Libbysville." However, the coastal position of the buildings, composite structure, placement of doors, and the tower on the left strongly reference the U.S. Signal Service Station at Point Barrow.

Icy Cape in 1908 and Vilhjalmur Stefansson purchased 60.1/299 and 60.1/934 from Cape Smythe residents in 1912.

Curio dealer Joseph E. Standley sold George Heye drill bows 55597 and 55598 in 1916 with the latter identified as coming from Point Barrow. Also in 1916, the University of Pennsylvania Museum purchased bow drill set NA4488 collected by W. B. Van Valin at Wainwright and purchased drill bow 41428 acquired by E. A. McIlhenny at Point Barrow. In 1927 the Field Museum received bow 177755 within an accession of over five hundred objects collected by John Borden during his Alaska Arctic Expedition. Finally, Chauncey Nash purchased drill bow 66-25-10/44182 at an auction in Milford, MA in the 1940s and Canadian collector George Rosengarten purchased drill bow IV-X-887 with lightly incised etchings between 1945-80.



Fig. 269. Detail of “Front View of Main Building, United States Signal Station, Point Barrow, Alaska.” Painting by John Murdoch (from Murdoch 1988:frontispiece).



Fig. 270. Illustration of the U.S. Signal Service Station at Point Barrow on drill bow NMNH E48519.

Engraving Style

Point Barrow drill bows divide stylistically into two groups. Twenty-one drill bows include lightly etched motifs with scattered imagery in a style referred to here as *Point Barrow*. Twenty-one drill bows appear to be from a later date and feature more distinct motifs within organized scenes described as *Point Barrow II*.

Form and Use Wear

Point Barrow style drill bows are characterized by highly rounded edges making rectangular bows appear almost cylindrical and flat bows seem elliptical in form. *Point Barrow II* style drill bows show a mix of squared and rounded edges on drill bows rectangular, flat and triangular in form. Four drill bows (E33182, E44365, E48521, 60/5826) are created with a peak or ridge down the center as seen at Cape Nome and Sledge Island.²⁵²

The majority of drill bows have one wide circular lash hole on each end and five drill bows have double lash holes suggesting auxiliary use as bag handles or double weave of the drill bow strap as seen on NA4488. Bows show moderate to heavy amounts of use wear with scratched surfaces, build up of sediment in crevasses, loss of fill and obscured motifs from handling. Five drill bows have broken tips resulting from stripped lash holes and bow 60/6241 is broken into two pieces. Eighteen drill bows retain bearded sealskin straps of diverse widths and use wear including frayed edges and breakage. Drill bow 66-25-10/44182 has a secondary knot on one end with black thread reinforcing the broken portion.

Point Barrow

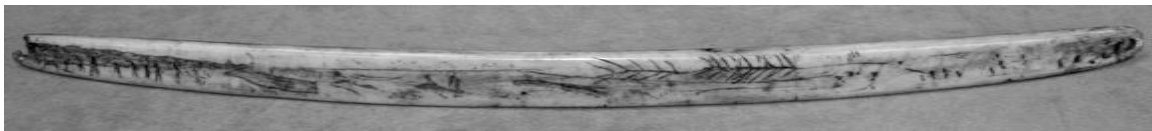


Fig. 271. Ivory drill bow with Point Barrow style engraving. NMNH E89421.

²⁵² George Emmons' collection records identify drill bow 60/5826 as coming from Point Barrow. The bow has two angled sides with small, precise motifs and one wide side with large, sketchy motifs congruent with later engravings found on whole tusks and pipes. The presence of two engraving styles suggests the bow was exchanged between carvers in Norton Sound and Barrow before being sold to Emmons.

Appearance: Drill bows with sparse roughly etched imagery consisting of rows of animals, simple scenes, and isolated abstract motifs related to Birnirk-Thule graphic designs (Fig. 271).

Content: Scattered motifs with a predominance of umiat, kayaks, caribou, figures with wiry limbs and graphic designs.

Lines and Fill: Motifs typically have obscured outlines and centers darkened with various etching techniques including gouge, scribble lines, and scribble hatching. Drill bows sometimes include partial baselines on the bottom with shallow incisions making baselines almost indiscernible or appear as a longitudinal crack upon the surface. Two drill bows (12587, E89424) have center baselines and approximately half the bows include upside down imagery. Motifs are engraved with shallow to medium deep incisions and filled with dark reddish brown soot; one drill bow (Am.9369) incorporates red ochre.

Figure: Crudely incised figures with long legs and thin torsos often reduced to a single line.

Umiaq: Loosely constructed umiat appear on about one-third of *Point Barrow* drill bows. The main umiaq form consists of a long boat with low sides, slightly angled stern and angled bow. Umiat crews appear as short rectangles (i.e. Am.9369, 60/2123) or are reduced to single vertical lines sometimes with a drilled head on top of each line (i.e. 94-57-10/R105).

Kayak: Four drill bows include a distinctive style of kayak related to Koryak construction with a short hemispherical frame and a central figure, comprised of a drilled

head and short triangular torso (60/2123, 12587, 94-57-10/R105, E44365) (see Table 6).²⁵³

Whale: Bowhead whales appear infrequently and usually along a bow's lower edge with a wavy outline, a few sketchy fill lines, and crude spray comprised of short horizontal lines intersecting a vertical axis (i.e. E44365).

Walrus: Walrus are even less frequent than whales but usually appear as a lone animal or in pairs with loose outlines, curved torsos and long tusks that curve almost to the baseline (i.e. 94-57-10/R105).

Caribou: Half of the *Point Barrow* drill bows depict caribou, primarily as a single subject or in rows, with the dominant style comprised of a rectangular torso darkened with a few sketchy vertical or horizontal lines, stick legs bent at the knees and two antenna-like antlers (i.e. 60.1/299). Murdoch acquired two drill bows (E89420, E89421) with large caribou in rows darkened with dense diagonal hatching comparable to the style of caribou from Point Hope and Indian Point. The large caribou on E89421 appear alongside sketchy motifs and pronged lines related to the earlier Birnirk-Thule tradition suggesting carvers worked on the bow during different time periods (see Fig. 271).

Dwelling: Distinct absence of village scenes. One drill bow (NA457) includes a sod house and two drill bows (E44207, E89421) depict narrow triangular tents with a few wavy lines.

Graphic: Almost all the drill bows in this group include seemingly random lines arranged into abstract motifs related to Birnirk-Thule graphic design. A pronged line

²⁵³ Three of the drill bows depicting Koryak style kayaks also feature multiple carvers' hands and motifs related to Point Barrow and Norton Sound. For example, drill bow 12587 depicts Koryak style kayaks next to caribou similar to those on drill bow 60.1/299 collected by Stefansson at Cape Smythe. The intermingling of drill bow styles points to trade of engraved ivories between carvers from different villages.

appears as an isolated element on three bows and forms the skeletal structure of a bowhead whale on bow 94-57-10/R105. Four bows depict rectangular boxes darkened with widely spaced lines as seen on E44365.

Point Barrow II

Point Barrow II drill bows appear to derive out of a Punuk-Thule engraving style with several traits linking the group to *Point Barrow* drill bows. First, three *Point Barrow II* drill bows include both well-defined and sketchy motifs. Next, drill bows E398234 and E48524 depict umiat carrying rectangular figures such as those on 60/2123. Likewise, *Point Barrow II* drill bows also include narrow triangular tents and incorporate pronged lines to represent smoke. Finally, a horizontal line with radiating perpendicular lines on *Point Barrow* drill bows also appears on SJ-II-V-125, and the earlier group's rectangular boxes have been transformed into square houses on 60/6241, SJ-II-V-125 and E398234.



Fig. 272. Ivory drill bow with Point Barrow II style engraving. SJM SJ-II-V-125.

Appearance: Two *Point Barrow II* drill bows (SJ-II-V-125, 60/6241) bear a resemblance to engraved ivory pipes featuring panels of complex scenes and represent ivory engravers carrying forward the traditional drill bow form while incorporating a new compositional structure (Fig. 272). Two drill bows also feature a combination of large motifs with sharp outlines and small motifs with more wavy outlines (E48519, E154071). The large and small motifs appear to be by the same carver and indicate an understanding of scale and proportion in addition to an awareness that larger motifs could be more quickly engraved for selling or trading.

Content: Predominance of mythological creatures, whaling ships, and subsistence activities including figures ice fishing, hunting caribou, dragging seals and pulling bowhead whale onto the shore (Table 10). The bows also illustrate seasonal scenes such as dogs sleds waving flags, winter villages with square houses blowing feather smoke and summer camps with narrow triangular tents and tall fish racks.

Lines and Fill: Motifs evenly spaced along lower baselines; four drill bows use vertical lines to divide scenes (98-18-10/52140, E48524, ET1076-1, SJ-II-V-125) and drill bow 60/6241 uses vertical and horizontal ladder lines to form individual panels. Motifs constructed with medium deep incisions filled with dark reddish brown soot; two early twentieth century drill bows include motifs darkened with lead (60/5826, E398234). Imagery appears small and neat with crisp outlines and centers darkened using gouge technique and square hatching.

Table 10. Pictorial elements of Point Barrow II engraving style.



Figure: Predominant figures include long legs, round drilled heads, and single line bodies wrestling, dancing and running. Figures on four drill bows (94-57-10/R106, 60/6241, E48519, SJ-II-V-125) wear raised feathers at the back of the head. Drill bows 60/6241 and E48522 illustrate figures wearing loon headdresses and dancing to the sound of round skin drums (see Ch. 9, Fig. 348). Drill bow E48524 depicts three figures wearing Western hats next to a row of tents.

Umiq: Two main variations of umiat with the first constructed as a small vessel with a curved bow and stern and sides featuring white and dark panels (see Table 10). The second style includes a larger umiaq with angled bow and squared stern with a projecting beam (i.e. NMAI 55598). Two drill bows of the latter style also depict crewmembers as simple rectangular shapes (E398234, E48524). Four drill bows illustrate three-masted whaling ships.

Kayak: Kayaks are typically constructed with elongated and curved bows. Drill bow E33187 includes a distinct Point Barrow kayak with a raised and angled cockpit rim.

Whale: Bowhead whales typically appear as elongated lumps across baselines with a long feather spray emerging from the crest of the head.

Walrus: Walrus often feature short tusks, rounded heads and elongated, dark bodies with densely etched lines.

Caribou: Caribou commonly appear as a single animal with long legs, narrow body, elliptical head, and thin antlers. Two drill bows (E33182, IV-E-51) include a distinctive caribou herd comprised of a single body and crossed legs.

Dwelling: Predominance of villages with sod houses, square homes, or summer camp scenes with rows of conical tents, typically darkened with square hatching and vertical lines. Two drill bows include a row of tents with white bands and three bows depict a small triangular motif or human figure interspersed between tents. Both E48519 and E154071 include large qagri with double extensions at the entryway leading to a trapezoidal main room and a square roof entrance.

Graphic: Three drill bows depict semi-circular arches enclosing small figures and animals (E33187, NA455, 98-18-10/52140) (see Ch. 6, Fig. 198). Drill bow 60/6241 uses

ladder lines to divide scenes and frame motifs, 98-18-10/52140 includes short barbed bands, and SJ-II-V-125 uses barbed lines to frame a dancing scene. Four drill bows incorporate nucleated circles as skin drums (60/6241, SJ-II-V-125) and as long rows across narrow sides (ET1076-1, 98-18-10/52140).








Myth Elements: Mythological creatures appear on fifteen *Point Barrow II* drill bows as a single subject, in rows, and attacking human figures on land and in the water (Table 11). Nine drill bows depict a “palraiyyuk,” a myth creature comprised of a crescent body, long legs and neck, elongated head and two antenna-like horns.²⁵⁴ Palraiyyuk appear as a single subject or in pairs (i.e. NA455), tearing a human figure apart (E33187), confronting a walrus (E48521), and as part of a mythical umiaq (94-57-10/R106). Four drill bows illustrate “walrus dogs,” including one beheading a human figure (E33187), with a crescent body, long neck, short upper arms and wedge-shaped head with two triangular ears. “Kokogiak” with mound-shaped bodies, multiple extended legs, and sometimes pincer-like heads appear on three drill bows (i.e. ET1076-1). “Tirisuk,” creatures with long bodies, short legs, and crocodile-like jaws with barb teeth, appear in rows on two drill bows (E33182, E33187). Closely related to tirisuk, crocodile creatures with pincer-like bodies filled entirely with sharp teeth and a pair of triangular legs appear on drill bows (E33187, E48521). Two drill bows (E46054, 94-57-10/R106) depict

²⁵⁴ Native names for myth creatures derive from legends recorded by Edward Nelson (1983:441-50) from the Bering Strait and Yukon-Kuskokwim regions between 1877-81. The depiction of “palraiyyuk” with elongated bodies and wavy horns or manes on Point Barrow drill bows may be based on the presence of ancient horses in the area. Charles Brower (1994:167-68) recounts that in 1894 Attooktua of Point Barrow told him the story of Nuvuk villagers who had lost two children to an “oogroognoon” described as “the size of a small bear and lived in a den under the banks of the lake, coming out only when hungry . . . fur, fine like a beaver’s, glistened under the water when the sun shone on it.” One day Attooktua brought a large skull to camp saying here was the skull of an oogroognoon which Brower states was the skull of a prehistoric horse.

tazmanian creatures with spherical bodies, raised arms and small horns while other bows feature insect creatures with short legs and antennas (i.e. E176194).

Point Barrow II drill bows also illustrate a range of anthropomorphic creatures including a walrus transformation (i.e. 177755), seal transformation (i.e. 98-18-10/52140), wolf transformation (i.e. E48524), whale transformation (i.e. 33182) and caribou transformation (i.e. E48116). A shared canon of mythological creatures forms an additional link between the *Point Barrow II* drill bows while at the same time revealing a complex spiritual ontology that fostered the engraved imagery.

Table 11. Myth elements of Point Barrow II engraving style.

						
94-57-10/R106 myth umiaq	NA455 palraiyuk	E33187 walrus transformati on	ET1076-1 kokogiak	E48521 crocodile myth	E33182 tirisuk	E48524 wolf transformati on

Point Hope



Fig. 273. “Houses and Esquimo at Point Hope, Alaska.” Photograph by Captain Michael A. Healy, 1880s. National Anthropological Archives, Smithsonian Institution, NAA INV 01418400.

Drill Bows

18 (Am.1369, Am1983.27.1, 1884.33.31, 1886.1.696, 1886.1.697, 7178, 177754, 4488, 208880, SJ-II-K-106, SJ-II-K-192, 60/1731, 60.1/8339, E63803, E63805, E89425, II-A-4463, II-A-6466)

Village Distribution

A group of drill bows with an emphasis on whaling imagery reflecting the socio-cultural importance of bowhead whales to the Tikigaq people of Point Hope (e.g., Foote 1992; Lowenstein 2008; VanStone 1962) (Fig. 273).

Collection History

A stylistic designation of “Point Hope” for this group derives from eight drill bows identified as coming from Point Hope in collector records. First, Frederick W. Beechey (1968:367) stopped at Point Hope in August 1826 where he probably acquired drill bows Am1983.27.1, 1884.33.31, 1886.1.696 and 1886.1.697.²⁵⁵ Another British explorer obtained drill bow Am.1369 with a carved whale fluke donated by Henry Christy to the British Museum between 1860-69 (Fig. 274).²⁵⁶ Edward Nelson collected one antler (E63805) and one ivory (E63803) drill bow from Point Hope while shortly

²⁵⁵ Lt. Edward Belcher took a small barge back to Point Hope and on to Point Barrow the following summer of 1827 but the attribution of these four bows to Beechey suggests a collection date from the previous year. Drill bow 1884.33.31 arrived at the Pitt Rivers Museum in the 1884 founding collection by Augustus Henry Lane Fox Pitt Rivers; although not identified as a Beechey bow, it relates to Am1983.27.1 and 1886.1.696 with seals lined up in a row, tight scribble hatch, and deep nucleated circles on the end. The British Museum purchased drill bow Am1983.27.1 from a Sotheby’s auction in 1983 and it appears in Beechey’s sketch of North Alaskan implements, see Ch. 2, Fig. 73.

²⁵⁶ The hemispherical umiat with figures and paddles on drill bow Am.1369 are almost identical to those on Beechey’s drill bow Am1983.27.1. The related motifs indicate a similar provenience and also suggest Am.1369 might have been originally collected by Beechey before being purchased by Christy.

thereafter, John Murdoch picked up drill bow E89425 from Cape Smythe with a row of whales engraved in the Point Hope style.²⁵⁷

Sheldon Jackson acquired drill bows SJ-II-K-106 and SJ-II-K-192 in Point Hope between 1887-1898 and John Hackman collected drill bow 4488 around 1899 while serving as captain of a whaling station at Point Hope (see Ch. 6, Fig. 200). Drill bow 60/1731 derives from a group of ten drill bows Miner Bruce sold to the AMNH in 1899 and in 1915 bow 60.1/8339 joined the AMNH following a museum expedition led by Alanson B. Skinner. John Borden sold the Field Museum drill bow 177754 with sketchy motifs he identified as coming from Point Hope (see Ch. 6, Fig. 199). Captain Joseph F. Bernard of Nome sold twenty objects to the Burke Museum with nine identified as Point Hope including drill bow/bag handle 7178.²⁵⁸ The Heye Foundation received a 1946 donation of drill bow 208880 within the Judge Nathan Bijur Collection and the Alaska State Museum received bow II-A-4463 from Catherine Boyd in 1969 who described acquiring the bow from Shishmaref.²⁵⁹ Finally, between 1964-1980 Keith and Alice

²⁵⁷ Murdoch (1988:177) describes drill bow E89425 as “from Utkiavwiñ [the village at Cape Smythe] . . . ornamented on the back with simply an incised border colored red. On the other side are the figures of ten bearded seals, cross-hatched and blackened. These are perhaps a ‘score.’” No other known ivory carving from Point Barrow features rows of full-size bearded seal or bowhead whale. On the other hand, drill bows from Point Hope such as 1886.1.697 often include rows of crosshatched whales and seals suggesting E89425 originated in Point Hope or it was engraved by a carver familiar with Point Hope imagery.

²⁵⁸ Howard Rock also identified engraved drill bow 7178 as originating from Point Hope, Burke Museum Accession Records, Acc. 2076

²⁵⁹ The caribou’s bent legs and diagonal hatch fill on drill bow II-A-4463 relate to the Point Hope style of engraving. Catherine Boyd’s handwritten list describes drill bow II-A-4463 as “Piece of an old ivory drill bow with many carvings of animals, birds and people hunting. It has been suggested that it is the story of one man’s life since the last picture on the front shows a bent old man.” Alaska State Museum, Accession Files, 69-33. A scarcity of early pictorial engraving attributed to Shishmaref makes it difficult to determine stylistic attributes related to this village. The UAMN includes two mineralized ivory combs from Shishmaref with barbed lines around the borders, a single large caribou, and large motifs with rectangular torsos that appear related to the Birnirk-Thule tradition (ivory combs: UAMN 2035-0017-1, UAMN 2035-0017-2).

Fuller collected drill bow II-A-6466 with an engraved whaling scene in the Point Hope pictorial style.



Fig. 274. Ivory drill bow with carved whale fluke and Point Hope style engraving. BM Am.1369.

Form and Use Wear

Characteristically flat or cylindrical drill bows with rounded edges and longer than average length including nine drill bows over 38 cm. One third of the drill bows in this group feature an animal carved on the end including four examples with a whale's fluke (60.1/8339, Am.1369, SJ-II-K-106, 4498), one with a seal's head (Am1983.27.1), and an antler bow with a caribou head (E63805) (see Ch. 6, Fig. 251). Drill bows include circular lash holes in various combinations including seven examples with a single lash hole on each end, six with double holes on the ends, one (Am.1369) with a single hole on the left and double holes on the right, one (II-A-4463) with three circular holes on the left and none on the right, and one (II-A-6466) with a single hole on the right end.²⁶⁰

The majority of Point Hope drill bows show moderate amounts of use wear such as scratches to the surface, build up of sediment within lash holes, motifs with faded outlines and loss of fill, nicks in the carved flukes and a broken end and secondary lash hole through E63805. Six bows retain sealskin straps that appear well used with frayed

²⁶⁰ The five drill bows with double lash holes suggest dual use as bag handles. Although collector records identify II-A-4463 as a drill bow, the three lash holes on the left and absence of holes on the right, indicate the carving might have been attached to a handle or used as a snow beater. In contrast, the slender, curved shape of II-A-6466 reflects a drill bow form despite the presence of only a single lash hole. The absence of a second hole suggests the carver found the left end too narrow for drilling a hole or assumed the bow would only be used for decorative purposes.

areas and secondary knots from breakage. Two drill bows include inset blue beads: a small bead is inset into the eye of the carved caribou on E63805 and Am1983.27.1 includes eight incised circles with gouged centers and two large beads.

Engraving Style

Appearance: Large motifs typically aligned in a single row of imagery along the bottom or across the center. Three drill bows use vertical lines to divide sides into panels or scenes.

Content: Primary scenes of hunting bowhead whales in umiat with secondary motifs of caribou and animal “tallies” (Table 12). The six drill bows with tallies comprise rows of bearded seal, beluga, bowhead, flukes and caribou hides.

Lines and Fill: Baselines appear on approximately half the drill bows with upside down imagery on only three bows. Drill bows without baselines include motifs that appear to float across the surface. Motifs feature medium to deep incisions filled mainly with dark soot. Distinctive prevalence of scribble hatching to darken motifs followed by secondary use of square hatching, gouge and vertical lines.

Table 12. Pictorial elements of Point Hope engraving style.

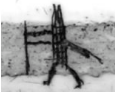
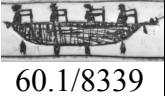

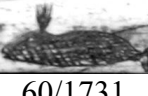



 Am1983.27. 1	 60.1/8339	 7178	 60/1731	 Am.7746	 SJ-II-K-106	 II-A-6466
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Figure: Figures mostly appear in umiat. Individual figures comprise bodies of simple rectangles (Am1983.27.1), tall stick figures with long arms and legs (SJ-II-K-106), and figures with circular heads, rounded backs and feet (SJ-II-K-192).

Umiat: Umiat typically appear suspended in the central surface area and are filled with dense scribble lines or square hatching. Most umiat have a unique semi-circular shape with curved bow and stern, low sides, and straight top and bottom. A single umiat carries four to five tall crewmembers indicated by simple rectangles or triangular or rectangular torsos with circular heads. Paddles extend below the bottom of umiat in a manner particular to Point Hope and Indian Point.

Kayak: Drill bow 7178 includes the only example of a kayak and features a raised cockpit rim in the style of Point Hope and Point Barrow (see Table 12).

Whale: Bowhead whales represent the predominant Point Hope motif and appear on ten drill bows as a single subject or in rows with whole whales from above or in profile. A typical whale has a broad outline and center densely filled with scribble hatching. Wholes flukes are commonly shown along with two small triangular flippers. A few whales depict spray comprised of sparse vertical lines.

Walrus: Walrus appear on only three drill bows as tallies (II-A-4463, SJ-II-Y-58) and as a walrus herd filled with scribble hatch (7178). Other Point Hope carvings include more-defined examples of walrus including snow beater Am.7746 (see Table 12).

Caribou: Caribou appear as a single subject or in rows with two stylistic variations. The first type of caribou feature large bodies filled with scribble hatch, bent legs and barbed antlers (i.e. SJ-II-K-106). The second type of caribou comprises stocky bodies filled with scribble or square hatching, slightly bent legs illustrated with hooves, and antenna-like antlers (i.e. SJ-II-K-192).²⁶¹

²⁶¹ The Point Hope style of caribou with antenna antlers and depiction of feet relate to caribou engraved on a flat piece of ivory acquired by John Murdoch (1988:362, Fig. 362) from Cape Smythe.

Dwelling: Sparse illustration of village scenes: drill bow 60/1731 includes triangular tents and the more recent drill bow II-A-6466 includes houses with windows and chimney pipes.

Graphic: A few graphic elements including nucleated circles on three drill bows (Am1983.27.1, 1884.33.31, 4488) and barbed lines on drill bow 4488.

Hotham Inlet



Fig. 275. Summer camp scene with tents and fish racks at Hotham Inlet. 1884. National Anthropological Archives, Smithsonian Institution, NAA INV 01330800.

Village Distribution

Drill bows attributed to Hotham Inlet possibly derive from the Kigiktauik settlement in Kotzebue Sound or Sheshalik on the north side of Hotham Inlet (e.g., Jackson 1893:1277; United States Revenue-Cutter Service 1899:112).

Drill Bows

25 (2003-1-10, 0/423, 60/1252, 60/2122, 60/2126, 60.1/4205, E/632, 4501, 12598, 177756, 2-4125, 2-4550, SJ-II-Y-129, E33179, E38886, E43932, E45018, E48520, E48526, E64151, E64152, E67904, E176171, 97-84-570, NA454)

Collection History

Collection records identify eight drill bows in this group as originating from Kotzebue Sound. Edward Nelson acquired nine drill bows with Hotham Inlet style engraving including two bows (E64151, E64152) specifically identified as “Hotham Inlet” and the remainder given various location attributions (E33179, E38886, E43932, E45018, E48520, E48526, E176171) (Fig. 276). William Healey Dall obtained drill bow 2003-1-10 and John J. Mclean presented the Smithsonian with drill bow E67904 identified as “Chilkat.”²⁶² Between 1887-93 Sheldon Jackson acquired drill bow 12598 and bow drill set SJ-II-Y-129 with engraved figures in the style of Hotham Inlet.

Rudolph Neumann sent drill bows 2-4125 and 2-4550 to the ACC Museum in San Francisco. The AMNH purchased three Hotham Inlet style drill bows from George T. Emmons in 1894 and 1916 (0/423, E/632, 60.1/4205) and bought three drill bows from Miner Bruce in 1899 (60/1252, 60/2122, 60/2126).²⁶³ George Byron Gordon obtained drill bow NA454 during 1905 and Ellis Allen collected drill bow 4501 along with a wood mouthpiece and ivory-capped drill during a 1913 summer excursion to Alaska. John Borden collected drill bow 177756 in 1927. Lastly, drill bow 97-84-570 formed part of

²⁶² Dall could have acquired drill bow 2003-1-10 between 1866-68 while a member of the Western Telegraph Expedition or during a subsequent collecting trip to Alaska, see Ch. 2. John J. McLean was stationed at the U.S. Signal Service station in Sitka during the 1880s. He patronized the Northwest Trading Company and primarily purchased ethnological material from southeast Alaska, probably attributing to the drill bow’s questionable cultural designation. For discussion on McLean’s passion for collecting see Douglas Cole, *Captured Heritage: The Scramble for Northwest Coast Artifacts*, (Vancouver, BC: UBC Press, 1995).

²⁶³ Emmons kept handwritten lists of his acquisitions indicating a desire to add credibility or monetary value to his collections. Emmons recorded object information in a Blair’s U.S. Mail Writing Paper that contains a description of drill bow 60.1/4205, “Drill bow of ivory, ornamentally cut out on side to represent bears, reindeer and nuik [sic], from Kotzebue Sound, Alaska.” AMNH, Division of Anthropology Archives, Accession 1916-70.

the Gotschall Collection assembled before 1936 at the Academy of Natural Sciences prior to being donated to the University of Pennsylvania Museum.

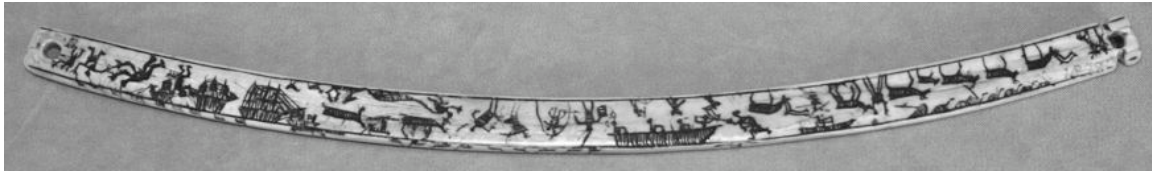


Fig. 276. Ivory drill bow with Hotham Inlet style engraving. NMNH E38886.

Form and Use Wear

Approximately two-thirds of the Hotham Inlet style bows are rectangular with rounded or squared edges. The remaining bows are flat with wide centers and narrow ends or of triangular form. The majority of drill bows have one wide circular or oval lash hole on each end. Drill bows show moderate to heavy usage including three bows with secondary holes necessitated from use wear and two bows with broken off ends. Fourteen drill bows retain bearded sealskin straps representing the highest bow to strap ratio of any regional style. Strap conditions appear congruent with bow use including frayed edges, worn centers and breakage. The majority of Hotham Inlet bows feature scratched and smudged surfaces along with grooved ends from strap wear. Despite heavy wear, motifs still retain their dark soot with loss of fill primarily from baselines.

Engraving Style

Appearance: Drill bows with small, dark motifs and irregular outlines. Scenes often appear unevenly spaced across the surface with clusters of imagery, large gaps and upside down engravings squeezed between motifs.

Content: Drill bows characterized by rows of animals and skins along with scenes of hunting bowhead whales, dragging seals and whaling ships (Table 13).

Lines and Fill: Drill bows typically include broad, deeply incised upper and lower baselines; one bow (E38886) has central baselines and two bows (60.1/4205, E64151) use vertical lines and bands to divide and orient imagery. Motifs feature medium to deep incisions filled with dark brown soot. Predominance of dense square hatching and gouge fill creates motifs with bumpy outlines and an overall appearance of dark, heavy imagery. Table 13. Pictorial elements of Hotham Inlet engraving style.








						
12598	SJ-II-Y-129	E48526	60/2126	177756	E64152	E38886

Figure: Figures are generally short with round, drilled heads, noticeably absent necks and gouged torsos. Many figures are seen in frontal view with widely spread legs and raised arms, occasionally terminating in star or claw-like hands (i.e. E67904, E38886). Figures also appear in basket sleds of Iñupiat (rectangular) and Siberian Yupik (curvilinear) construction pulled by dogs with open mouths and barbed tails (i.e. 60/2122, 12598).

Umiatq: Umiat constructed of alternating light and dark side panels with heavy outlines, flat stern and angled bow appear on half the Hotham Inlet style drill bows. Umiat carry three to five figures typically with round, drilled heads and short, square or triangular torsos grasping paddles (i.e. 177756, SJ-II-Y-129). Seven drill bows illustrate large whaling ships trading with villagers and hunting whales and walrus. Whaling ships are depicted in profile and frontal views with irregular outlines and sides darkened with vertical lines, gouged masts and sails filled with dense lines or hatching.

Kayak: Kayaks typically of Bering Strait construction with flat sterns and dramatically raised bows with a single figure sitting in the center. Kayaks are commonly darkened with gouge fill (i.e. SJ-II-Y-129) and occasionally with black and white sections similar to umiat (i.e. E38886).

Whale: Bowhead whales appear low along the baseline with an undulating outline and sometimes half of a raised triangular fluke. Three drill bows include a distinctive bowhead whale comprised of deep curves between the head, body and raised tail with a large fluke seen in frontal view (60/2122, 60/2126, 177756) (see Table 13). Whales are shown in rows (i.e. 60/1252, E48520) and in scenes hunted by umiat (i.e. 2003-1-10) and whaling ships (i.e. E48526).

Walrus: Walrus typically include only a conical head and shoulders, tapered tusks extending horizontally or at a slight downward angle, and centers darkened with gouge or dense scribble hatching.

Caribou: Caribou appear on only one-third of Hotham Inlet bows as isolated motifs, in short rows, or swimming in the water. Caribou generally feature curved antennae-like antlers, occasionally with barbs, dark rectangular bodies with a slight rise at the shoulders, and pairs of legs bent at the knees (i.e. E/632, 177756).

Tally: The Hotham Inlet group represents the greatest number of bows etched with tallies or numerical records, perhaps denoting the valuable exchange of animal pelts at trading fairs. Nine drill bows include long rows of skins (beaver, ermine, fox, wolf and caribou) and rows of animals (wolves, bowhead whales, bearded seals, and geese). Animal skins appear dark and heavy with combinations of gouge and scribble hatching.

Dwelling: Village scenes include curvilinear sod houses and dark umiat on racks low to the ground (i.e. 2-4550). Camp scenes depict paired conical and dome-shaped tents (i.e. E38886, 97-84-570). Two drill bows illustrate small qagri with curved walls enclosing pairs of short dancing figures (2-4550, E48526).

Graphic: Over half the Hotham Inlet style drill bows include a small gouged star or cross appearing as a single element or in rows above whaling scenes to represent migrating birds.

Cape Prince of Wales

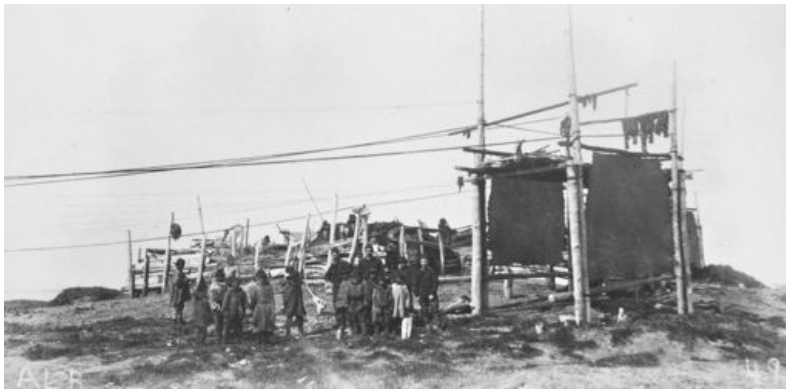


Fig. 277. “Houses, Natives, Drying Walrus Hides, Cape Prince of Wales.” Three Non-Natives, probably crewmembers of the *Bear*, pose with a group of children in Wales. Photograph in an album compiled by Alfred L. Broadbent aboard the U.S. Revenue Cutter *Bear*, 1891. Courtesy Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, WA Photos 63, object id 10001586.

Village Distribution

Drill bows identified as Cape Prince of Wales appear to originate from two major nineteenth century settlements including Kiataanamiut and Againamiut, collectively known as Kiñigin (Burch 2006:48) (Fig. 277). Edward Nelson (1983:26) described the settlements at Cape Prince of Wales, Port Clarence and King Island as all belonging to the Kiñugumut nation.

Drill Bows

20 (II-A-9, II-A-13, Am8209, Am8210, Am.9367, Am.9368, Am1855.1126.224, Am1855.1220.227, Am1855.1220.228, Am1949.22.26, Am1970.06.2, Am1985.Q.256, 1884.68.20, 1884.68.22, 1884.98.47, 1884.98.48, 1884.140.488, E43360, E64153, 15324)

Collection History

During 1936 excavations of the Hillside Site at Cape Prince of Wales, Henry Collins uncovered an ivory implement (NMNH A394649) engraved with small figures hunting bowhead whale in an umiaq (Fig. 278).²⁶⁴ The implement's engraving style relates to drill bows E43360 and E64153 acquired by Edward Nelson with E43360 specifically recorded as "Cape Prince of Wales" (Fig. 279). Drill bow E43360 also includes a distinct motif with mythical beings in a curved qagri that link this pictorial style to a number of drill bows collected by British explorers and collectors.

First, Edward Belcher of the HMS *Blossom* collected six drill bows with Wales style engraving: Am8209, Am8210, 1884.68.20, 1884.98.47, 1884.98.48 and probably 1884.68.22.²⁶⁵ Next, William Hulme Hooper of the HMS *Plover* acquired drill bow Am1855.1126.224 and additional British naval expeditions before 1855 resulted in the collection of drill bows Am1855.1220.227, Am1855.1220.228 and probably

²⁶⁴ Collins uncovered the engraved implement from a late position in the Hillside Site (Cut C, Sec. 7, Dep. 46 in.) and viewed the pictorial imagery as another link between Wales and the development of the Thule culture, see Don E. Dumond, *Henry B. Collins at Wales, Alaska, 1936: A Partial Description of Collections*, (Eugene, OR: Dept. of Anthropology and Museum of Natural History, University of Oregon, 2000), 130-32, 202-03.

²⁶⁵ Pitt Rivers donated drill bow 1884.68.22 as part of the Ashmolean's founding collection in 1884. Although the drill bow lacks provenience, the catalogue number and similarly engraved motifs suggest Edward Belcher collected it while aboard the *Blossom*.

Am1985.Q.256. By 1874 Augustus Henry Lane Fox Pitt Rivers obtained drill bow 1884.140.488 with an adhered label that states “A curious antique carved ivory.” The British Museum received drill bows Am.9367 and Am.9368 in 1875 from British cleric Rev. Dr. William Sparrow Simpson.

Lieutenant-Commander Miles C. Gorgas collected drill bow 15324 before 1892 while possibly aboard the U.S.S. *Thetis* or *Bear*.²⁶⁶ Between 1910-20, Dr. Daniel Neuman acquired drill bow II-A-9 with a recorded provenience of Wales and an old part of a drill bow (II-A-13) depicting a whaling scene similar to the ivory piece excavated by Collins. Lastly, in 1949, the British Museum purchased drill bow Am1949.22.26 as part of the dealer William Ockelford Oldman’s collection and in 1970 procured Am1970.06.2 from the Salisbury & South Wiltshire Museum.

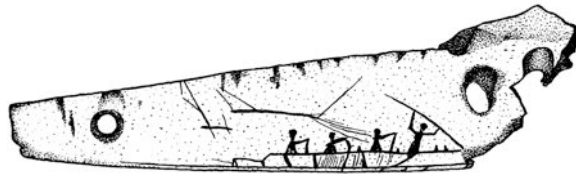


Fig. 278. Engraved ivory implement NMNH A394649 excavated by Henry Collins from the Hillside Site at Cape Princes of Wales in 1936. Pen and ink drawing by Henry Collins. National Anthropological Archives, Smithsonian Institution, Henry B. Collins Papers, Box 110.

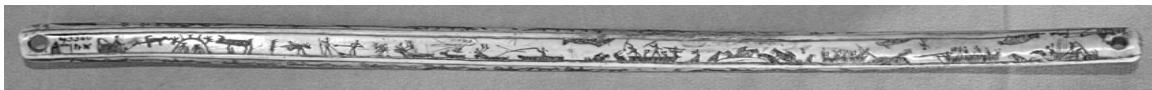


Fig. 279. Ivory drill bow with Cape Prince of Wales style engraving. NMNH E43360.

²⁶⁶ Miles C. Gorgas acquired several ethnological objects from northern Alaska while aboard the U.S.S. *Thetis* during 1877-89 but engraved ivory carvings do not appear in his published list of collections. See Miles C. Gorgas, *University of Pennsylvania Museum Bulletin*, 3(1901): 249. Gorgas made additional collections during the three years he spent on the U.S. Revenue Steamer *Bear* and discussed his observations on Bering Strait annual trade fairs with Inman Horner who exhibited part of Gorgas’ collection and penned the article “The Inter-Continental Trade of Bering Straits,” *Proceedings of the Numismatic and Antiquarian Society of Philadelphia*, (1882): 29-33.

Form and Use Wear

Predominantly square and rectangular ivory drill bows with lightly rounded edges. Moderate use wear with light scratching to the surface, loss of soot fill, and application of secondary soot fill of a different hue (i.e. Am.9367). The group includes one partial drill bow (II-A-9) and three drill bows broken into two parts (1884.68.22, Am1855.1220.228, Am1985.Q.256). Ten drill bows retain full or portions of bearded sealskin straps. Drill bow Am.8209 includes a braided sinew strap of similar construction to the strap on Cook's drill bow 27.4.61/32.

Engraving Style

Appearance: Drill bows with small, dark motifs and wavy outlines with scattered imagery and crowded scenes.

Content: Primary scenes of myth creatures, rows of caribou and figures hunting whales, walrus and caribou (Table 14).

Lines and Fill: Thin baselines with scattered retention of dark soot fill; a number of bows include light baselines that appear to have never been darkened with soot (i.e. Am.9368, Am1949.22.26). Over half the drill bows include upside down imagery tucked into spaces between motifs on the opposite side. Motifs feature soft or irregular outlines caused by a predominant use of elongated barbs and thin, widely spaced lines to fill in motifs, the latter producing a striped appearance. Dark soot typically rubbed unevenly into etchings producing variegated imagery.

Table 14. Pictorial elements of Cape Prince of Wales engraving style.


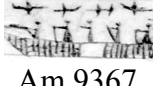

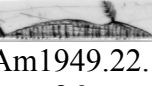



						
Am1855.122 0.228	Am.9367	E43360	Am1949.22. 26	Am1855.1126 .224	Am.8209	1884.68.22

Figure: Thin figures with small, drilled heads, triangular torsos and straight limbs. Figures often illustrated in umiat or standing, facing forward with spread legs and raised arms (see Table 14). Three drill bows depict horizontal figures floating above pictorial scenes. Drill bow E43360 includes a long row of curved dog sleds indicating interaction with Siberian Yupik villages on the Chukchi Peninsula.

Umiat: Umiat appear as slender rectangular boxes constructed of straight sterns and curved bows. Boats feature dark and light side panels with the former filled in using loosely spaced vertical lines.

Kayak: Kayaks of predominantly Bering Strait style construction with a straight stern, raised bow, and sides darkened with widely spaced vertical lines.

Whale: Bowhead whales appear long and low on the baselines with short feather spray and bodies darkened with widely spaced vertical lines or cross-hatching.

Walrus: Large walrus raised high out of the water with tapered tusks and bodies usually darkened by gouging out the centers or filling with loose cross-hatching. Two drill bows illustrate walrus with long necks attacking hunters in an umiat (E43360) and kayak (E64153).

Caribou: Over half the Cape Prince of Wales drill bows feature prominent rows of caribou standing or grazing with bent heads. The dominant style includes caribou with very thin legs bent inward at the knees, slender rectangular bodies darkened with widely

spaced vertical lines or barbs, a short barb tail, and simple, angular antlers. Four drill bows illustrate anthropomorphic caribou dancers wearing armlets with feathers or rattles (i.e. Am1949.22.26, 15324).

Dwelling: Sod houses appear on seven drill bows with tall entrance tunnels almost at the height of the central room. Houses typically include two short vertical posts on top of the tunnel entryway and are filled with loosely spaced vertical lines.








Graphic: Seven drill bows include elements related to Birnirk-Thule and Punuk-Thule graphic traditions. First, drill bows 1884.98.47 and Am.9367 feature diagonal pairs of barbed bands, Am.9367 includes a pronged line deeply etched on the upper side, and Am1985.Q.256 features a distinct four-armed cross with prongs on the ends.²⁶⁷ Second, drill bows Am8210 and Am1855.1220.228 include nucleated circles and II-A-9 includes ladder lines etched across two narrow sides.

Myth Elements: Over three-fourths of the Cape Prince of Wales drill bows depict myth elements as a single subject, in rows, and attacking human figures on land and in the water (Table 15). Six drill bows feature a “walrus dog” with an elongated body and neck, short triangular ears, and occasionally raised arms and a tail, attacking figures in and out of the water. Three drill bows include shaman-like figures with droopy arms enclosed in a semicircular qagri with small figures radiating from the exterior (E43360, Am1949.22.26, 1884.68.20).

²⁶⁷ The four-armed cross on drill bow Am1985.Q.256 relates to graphic designs from Siberian Yupik and Chukchi cultures. Similar crosses are painted on the sealskin acquired by William Hulme Hooper at Indian Point (PR 1996.19.1) and Siberian Yupik women often tattooed pronged crosses on their cheeks and arms. For a discussion on the history and designs of Bering Strait tattooing practices see, Lars Krutak, “Of Human Skin and Ivory Spirits: Tattooing and Carving in Bering Strait,” in *Gifts from the Ancestors: Ancient Ivories of Bering Strait*, William W. Fitzhugh, Julie Hollowell, and Aron L. Crowell (eds.) (Princeton: Princeton University Art Museum, 2009), 190-203.

Drill bow 1884.68.20 includes pairs of figures joined at the waist holding staffs or ice picks. Four drill bows depict shaman-like figures standing between pairs of walrus, walrus dogs and other myth creatures (i.e. Am.9367, Am.8209). Four drill bows also depict a tazmanian-like creature with a conical shaped body, raised arms, and pairs of horns (i.e. 1884.98.48, 1884.68.22). Additional myth elements include bird dancers with feathered armlets, giants, insects, seal transformation figures, and creatures with fantastic characteristics (see Table 15 and Appendix F, “Legends”).

Table 15. Myth elements of Cape Prince of Wales engraving style.

						
Am1949.22. 26 walrus dog	E43360 shaman in qagri	1884.68.20 joined figures	Am.9367 shaman with animals	1884.98.48 tazmanian	Am1855.122 0.228 bird dancer	1884.98.47 insect creature

Little Diomede



Fig. 280. “Main street, Little Diomede Island, Bering Strait, Alaska.” Photograph by Diamond Jenness, July 1926. Canadian Museum of Civilization Archives, Historical Photos 67782.

Drill Bows

21 (60/1201, 67-9-10/144, 2-4119, 2-4120, SJ-II-J-91, SJ-II-P-13, 193412, A380771, E43931, E44209, E44465, E48518, E49163, E63622, E63623, ET16050, ET16060, E379814, UA74-067-0011A, NA456, NA460)

Village Distribution

A group of drill bows associated with the village of Inqaliq on Little Diomedede and possibly the settlement of Imaqliq on Big Diomedede (see Curtis 1930:111-17; Hughes 1985:248) (Fig. 280).²⁶⁸

Collection History

A stylistic attribution of “Little Diomedede” for this group derives from three drill bows (E49163, E63622, E63623) collected and identified by Edward Nelson as “Diomedede Islands” which relate to six additional bows Nelson obtained (E43931, E44209, E44465, E48518, ET16050, ET16060). Sheldon Jackson acquired a four-piece bow drill set (SJ-II-P-13) with Little Diomedede imagery close to the same time the AMNH purchased drill bow 60/1201 from the salvage sale of dealer S. Kirschberg from Victoria, British Columbia.²⁶⁹ Agents for the Alaska Commercial Company acquired drill bows 2-4119 and 2-4120 before 1898 and Reverend John White collected the three-piece bow

²⁶⁸ Edward Nelson recorded a legend from Diomedede Islanders who described the Islands’ first inhabitants as coming, “from the sky in the shape of a man and a woman who lived there a long time but had no children. At last the man took some walrus ivory and some wood and made of each five dolls which he put on one side and in the next morning, there were ten people in place of the dolls and those who came from walrus ivory were very courageous while those from wood were timid, and from the people the island became inhabited.” SIA, *Nelson Journals*, August 13, 1880.

²⁶⁹ Franz Boas described Kirschberg as someone from whom “Lieut. Emmons bought quite a number of specimens [now] hoping to sell it here to advantage.” Boas encouraged Morris K. Jesup to purchase a variety of Northwest Coast and Arctic objects from Kirschberg stating, “I have marked them what will be desirable as supplementing the collection of the Museum from Alaska.” Letter from Franz Boas to Morris K. Jesup, November 18, 1896. AMNH, Division of Anthropology Archives, Accession 1896-42.

drill set SJ-II-J-91 while a Nome resident between 1903-06. George Byron Gordon obtained two drill bows (NA456, NA460) with Little Diomed style engraving in 1905 and about five years later Harold McCracken acquired drill bow UA74-067-0011A directly from Little Diomed. ²⁷⁰ In 1936 William M. Fitzhugh collected drill bow 193412 and in 1967 Boston Athenaeum donated drill bow 67-9-10/144 to the Peabody Museum (Fig. 281). Finally, Francis B. Sayre acquired a broken portion of an ivory drill bow (A380771) with early motifs while on the Diomed Islands during the 1930s. Sayre also collected a wood drill and old ivory drill bow with Little Diomed style engraving (E379814) he identified as coming from Point Hope and described as “Drill, and buried walrus ivory bow. Bow very old.” (see Ch.6, Fig. 213).²⁷¹



Fig. 281. Ivory drill bow with Little Diomed style engraving. PMAE 67-9-10/144.

Form and Use Wear

Rectangular drill bows with flat surfaces and squared edges. Over half the drills bows are of distinctively short form under 35 cm in length. Lash holes are typically wide and circular with a rectangular slot appearing on only one bow (SJ-II-J-91) and a secondary hole drilled through 60/1201 due to end breakage. Eleven drill bows retain

²⁷⁰ Gordon identified NA456 as coming from Nunivak Island but this attribution seems unlikely as Gordon (1917:154) described an absence of villagers on Nunivak and their carvers are not known for pictorial engraved drill bows.

²⁷¹ Sayre’s description appears on a handwritten tag attached to drill bow E379814. The drill bow’s short length, square edges and open hatching relate this bow to Little Diomed. In addition, the pronged lines on drill bow E379814 are almost identical to those on drill bow E63623 collected by Nelson from the Diomed Islands. These similarities suggest a carver traded drill bow E379814 to a Point Hope resident or the carver himself moved from Little Diomed to Point Hope.

portions of bearded sealskin straps while one bow (ET16060) has a strap of commercial leather. Breakage, secondary knots and fraying indicate heavy use of drill bow straps. Bows show moderate amounts of use wear, most often in the form of scratched surfaces and darkened or stained areas probably from oils in the hands.

Engraving Style

Appearance: Rectangular bows with squared edges and scenes of spring activity with motifs darkened using square hatching often spaced widely across the surface.

Content: Primary scenes of hunting walrus, whale and geese with secondary themes of camp and village life illustrated by tents and houses on stilts (Table 16).

Lines and Fill: Prevalence of wide square hatching to darken human torsos, walrus, geese, bowhead, umiat, kayaks and houses on stilts. Vertical line and gouge fill used occasionally in conjunction with square hatching. Motifs often include distinctive white bands or areas left blank. All the bows except one have upper and lower baselines with upside down imagery on two-thirds of the bows. Motifs feature dark soot fill and a combination of straight and irregular outlines that are often broad and enclose centers filled with narrow lines.

Table 16. Pictorial elements of Little Diomed engraving style.



Figure: Figures often shown with two raised arms and square or rectangular torsos typically darkened with square hatching.

Umiat: Umiat commonly include straight sterns, angled bows, and high sides darkened completely with square hatch or in conjunction with unfilled, white areas. Three

to four figures appear in an umiaq often with a steersmen holding up a paddle and a harpooner poised to strike a whale or walrus.

Kayak: Single and three-man kayaks of Bering Strait construction with curvilinear outlines and sides typically hatched with bows and/or sterns left white. Kayakers often illustrated using a spear or harpoon in conjunction with a sealskin float.

Whale: Bowhead whales are normally illustrated in profile with one extended fluke, the upper body resting on the baseline, and a barbed line of spray. Square hatching is often used to darken whales with portions of the head and tail often left white.

Walrus: Conical-shaped walrus heads with square hatch continuing to the top of the head. Long narrow tusks extend from the upper head area in distinct horizontal lines or slight downward tilt.

Caribou: Caribou or reindeer appear on less than one-third of Little Diomedé drill bows denoting a scarcity of these animals on the Islands. Caribou in the Little Diomedé style feature stick legs, antenna-like antlers, and bodies darkened with square hatching (see Fig. 261).

Dwelling: Prevalence of conical tents and square houses on stilts darkened with hatching.

Graphic: Seven Little Diomedé drill bows include graphic elements including four drill bows with barbed lines (i.e. E379814), two with barbed bands (i.e. 67-9-10/144), and two with pronged lines (i.e. E63623).

Sledge Island



Fig. 282. Sod houses and open caches on Sledge Island (from United States Revenue-Cutter Service 1899: facing pg. 126).

Village Distribution

During collecting excursions between 1879-80, Edward Nelson acquired over six hundred objects from about fifty inhabitants in the village of Aziak on Sledge Island (Nelson 1983:106; Ray 1982:258) (Fig. 282).²⁷² Engraved drill bow imagery including dog sacrifices and riding reindeer suggest a cultural connection with Siberian peoples (see Curtis 1930:102; Jacobsen 1977:120; Kotzebue 1967:196).

Drill Bows

15 (Am.1368, IV-E-52, 2-38438, 52955, E44208, E44399, E44464, E44467, E45017, E45020, E45021, E45025, E45332, ET1076-0, E176191)

Collection History

A regional nomenclature of “Sledge Island” for this group derives from five drill bows (E45017, E45020, E45021, E45025, E176191) Edward Nelson collected and

²⁷² Sledge Island lies seven miles off the southwestern coast of the Seward Peninsula with steep cliffs of volcanic origin visible from the mainland on a clear day. The deserted island falls under the jurisdiction of the Nome Census Area and while original inhabitants are lost to memory, King Islanders still use Sledge Island as a stopping point when out walrus hunting or search the rocky cliffs for murre and kittiwake eggs (Sylvester Ayek May 2012).

recorded as coming from Sledge Island that relate to six additional bows Nelson obtained (E44208, E44399, E44464, E44467, E45332, ET1076-0) (Fig. 283). Henry Christy made the earliest acquisition of a Sledge Island style drill bow between 1860-69 (Am.1368). Francois Mercier collected drill bow IV-E-52 while working in Norton Sound from 1868-85 and in 1916 Frank Wood sold George Heye drill bow 52955. Lastly, in 1964 the Phoebe Hearst Museum received drill bow 2-38438 which originally belonged to the Hamlin-Jose Pony Express Foundation.



Fig. 283. Ivory drill bow with Sledge Island style engraving. NMNH E45021.

Form and Use Wear

The Sledge Island group consists of seven rectangular and eight triangular bows with the latter of distinctive form featuring two sloped narrow sides divided by a ridge or crest and a third flat side on the bottom. The majority of drill bows include one wide circular or oval lash hole on each end and two drill bows have double lash holes. Drill bows show moderate use wear including soiled and scratched surfaces, loss of fill from motifs, grooved ends from strap wear, and a broken end on IV-E-52. Drill bow E45020 has a circular hole close to the end that possibly functioned as a secondary lash hole or might have been drilled for exhibit purposes. Two drill bows retain portions of bearded sealskin straps showing moderate to heavy use including worn, discolored areas and breakage.

Engraving Style

Appearance: Sledge Island drill bows are distinguished by a golden ivory color with a visually warm appearance accentuated by the use of dark brown soot rubbed into scenes of dense imagery.

Content: Predominance of active village scenes with figures working, dancing and visiting in addition to scenes of umiat travelling and hunting walrus and whales (Table 17).

Lines and Fill: Most drill bows feature moderately deep upper and lower baselines with the ridge on triangular bows taking the place of an upper baseline for the two angled sides. Nine drill bows include upside down imagery with motifs crowded onto the surface creating dense and occasionally scattered scenes. Motifs feature medium deep incisions darkened primarily with sketchy vertical lines followed by a combination of gouge and square hatching techniques.

Table 17. Pictorial elements of Sledge Island engraving style.

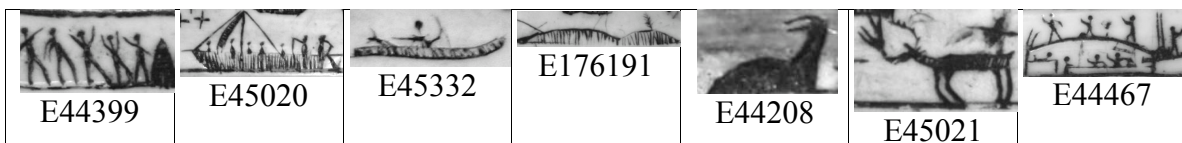


Figure: Two predominant types of figures with the first comprised of tall, wispy figures with pinpoint heads, long legs and bent knees, arms and backs (i.e. E44399). The second style includes figures of shorter proportions but in similar animated poses (i.e. E44467). Three drill bows include figures with distinctive pointed hats that may represent Sami people (E45020, E45021, E45025).

Umiat: Long and narrow umiat with short sides, pointed bows, and sides typically darkened with dense vertical lines. An umiat crew hunting whale and walrus typically includes figures leaning forward grasping paddles (i.e. 44208). Travelling umiat often include triangular sails supported by a central post carrying figures with straight backs evenly spaced inside the boat (i.e. E44399, E45020).

Kayak: Kayaks of Bering Strait style construction with raised bow and flat stern darkened with dense vertical lines or gouged centers.

Whale: Bowhead whales often constructed from a single dipped hemisphere darkened with vertical lines and spray illustrated as a dense pronged line.

Walrus: Walrus feature long, narrow necks, short tusks that taper at the end, and bodies darkened with dense vertical lines.

Caribou: Caribou etched at an angle with long legs bent at the knees, long rectangular bodies and necks, thin antlers and bodies darkened with vertical lines. Drill bow E44467 illustrates a figure riding a reindeer and may represent a Chukchi herder.

Dwelling: Sod houses typically constructed low to the ground with angular outlines and a peaked roof with long feather-like smoke. Qagri appear larger than surrounding sod houses with a peaked central area. Figures appear dancing and working inside several qagri. Narrow conical and round tents darkened with dense vertical lines. Figures and dogs stand under, climb on and swing from open caches holding provisions and enclosed square caches set on four spindly posts.

Graphic: Noticeable absence of graphic elements.

Cape Nome

Village Distribution

This group of drill bows probably originates from the village of Ayasayuk at Cape Nome as well as itinerant travelers from the village of Ugiuvak on King Island (see esp. Jackson 1893:1273; Ray 1992:104-06). The Cape Nome group also includes a substyle of drill bows labeled “Golovin” that derive from bow E176172 Nelson collected at Golovin Bay. The Golovin drill bows shares stylistic similarities with Cape Nome but link to a specific carver. General characteristics of the Golovin drill bows are incorporated into the present discussion on Cape Nome imagery while Chapter Eight offers an in-depth look at the individual carver and his repertoire of unique motifs.

Drill Bows

Cape Nome and King Island: 15 (1973.017.001, Am1999.02.1, Am1999.02.2, 1976.68, 2-10898, 1884.68.21, E24541, E24545, E33180, E44367, E44398, E44400, E48527, E45330, E176194)

Golovin: 6 (04-28-10/63546, 2-1559, 2-6974, 246479, E44213, E176172)

Collection History

Edward Nelson collected and recorded four drill bows (E44367, E44398, E44400, E45330) in this group as “Cape Nome” helping to establish a provenience for this pictorial style (Fig. 284). Augustus Henry Lane Fox Pitt Rivers made the earliest known acquisition of a Cape Nome style drill bow (1884.68.21), which he lent to the Bethnal Green Museum around 1874.²⁷³ Lucien Turner collected two Cape Nome style drill bows

²⁷³ Drill bow 1884.68.21 transferred to the Ashmolean Museum in 1884 and subsequently entered the Pitt Rivers Museum.

(E24541, E24545) and Nelson managed to acquire five drill bows with varied attributions in addition to those described above (E33180, E44213, E48527, E176172, E176194).

S. B. McLenegan collected drill bow 2-10898 around 1883 and Dr. H. M. W. Edmonds obtained bow 2-6974 between 1889-99 during multiple trips to St. Michael serving twice as a foreman with the U. S. Coast and Geodetic Survey.²⁷⁴ Also in the St. Michael vicinity, Charles L. Hall obtained drill bows 2-1559 and 04-28-10/63546 with the latter received by the Peabody Museum as part of a 1904 exchange with the Phoebe Hearst Museum. Similarly, David Currie made an exchange with the Heye Museum offering up drill bow 246479. In 1973 the Anchorage Museum acquired drill bow 1973.017.001, which the previous owners described as having been made by their grandfather three generations back named Kotongan from Elim, AK. Also in 1973, the British Museum received drill bows Am1999.02.1 and Am1999.02.2 recorded as deriving from Aklavik and acquired by Donald Marsh who served as an Anglican bishop in the Arctic.²⁷⁵ Finally, in 1976 the Horniman Museum accessioned bow 1976.68 which had previously been in the Bognor Regis Museum in West Sussex.



Fig. 284. Ivory drill bow with Cape Nome style engraving. NMNH E44398.

²⁷⁴ For extended discussion on Edmonds' observations on Norton Sound material culture see, "The Eskimo of St. Michael and Vicinity as Related by H. M. W. Edmonds," Dorothy Jean Ray (ed.), *Anthropological Papers of the University of Alaska* 13(1966).

²⁷⁵ Aklavik is a small village of about 600 people located in the Inuvik Region of the Northwest Territories, Canada. Donald Marsh served as a missionary in Arviat, Aklavik and Baffin Island between 1950-73. Observations on the local Inuit culture and changing government policies are documented in Donald Marsh, *Echoes from a Frozen Land*, (Edmonton: Hurtig Publishers, 1987). Additional engraved ivory drill bows from Aklavik are unknown and pictorial imagery on drill bows Am1999.02.1 and Am1999.02.2 appear analogous to the Cape Nome style suggesting the bows were made by Bering Strait carvers.

Form and Use Wear

Rectangular and three-faceted drill bows of similar triangular form to a number of drill bows from Sledge Island. The Cape Nome group includes ten triangular drill bows that consist of one wide, flat side and one side with a peak or ridge down the center creating two angled surfaces engraved with opposite facing scenes. Predominance of single circular or oval lash holes with double lash holes only on E44367 and E44398. Drill bow E48527 has a secondary lash hole due to a worn end, bow 1976.68 has a broken tip and bow 246479 has been adhered back together following a break into three pieces probably post-collection. Five drill bows retain bearded sealskin straps with two broken and three straps in good condition. As a whole, bows show minimal to moderate amounts of use wear indicated by light scratching to the surface, hairline cracks, a few areas with loss of fill and darkened areas around lash holes from strap wear.

Engraving Style

Appearance: Motifs closely spaced together with ten drill bows incorporating upside down imagery and two bows (2-1559, E44213) with large spaces and half-started motifs suggesting collection before completion.

Content: Cape Nome drill bows characterized by small figures engaged in complex scenes of hunting bowhead whales and walrus, summer camps with tents and racks, villages with sod houses, and interactions with Westerners (Table 18).

Lines and Fill: Drill bows comprise various combinations of incised upper, lower and center baselines while the carved ridge on some bows (i.e. 246479, E24541) also serves as a division and orientation line. Shallow to medium depth incisions filled with dark brown soot and one drill bow (1976.68) darkened with red ocher. Motifs have crisp

outlines with a predominance of tight vertical line fill followed by gouge and tight square hatching. Over half the drill bows in the Cape Nome group reveal more than one engraving style suggesting work by multiple carvers.²⁷⁶

Table 18. Pictorial elements of Cape Nome engraving style.








						
1884.68.21	E48527	Am1999.02. 2	E44398	E44400	2-10898	E33180

Figure: Short figures with drilled heads and gouged out triangular torsos in animated poses. A few Cape Nome drill bows (i.e. 2-1559) show a hunter stretched out on the ground with an extended shotgun in a manner similar to St. Michael imagery. Three drill bows depict Western figures with broad-brimmed hats travelling in small barges (E44213), standing next to canvas tents (E176172), and riding horses (2-1559).

Umiaq: Distinctive umiaq motif with figures holding up paddles and sealskin floats on five drill bows (246479, E33180, E44367, E48527, E176172). Umiat appear long and narrow with straight sterns and pointed bows filled in with dense vertical lines. Crews of four to seven figures with drilled heads and gouged bodies. The steersman often sits on an extension at the stern while central figures paddle or hold up a raised paddle to signify striking a whale. A figure behind the harpooner usually holds a distinct sealskin

²⁷⁶ The predominance of Cape Nome style motifs over other engraving styles determined a regional attribution of Cape Nome for these drill bows. The multiplicity of engraving styles suggests older carvers handed down the drill bows to younger carvers and/or the bows passed between villages before being “finished off” and traded.

float comprised of an ovoid body, often with two small fore flippers, and a triangular “tail” representing the hind flippers, attached to a zigzag harpoon line (see Table 18).

Kayak: Like umiat, single-hatch kayaks are darkened with vertical lines and appear long with straight sterns and raised bows in a hybrid form of Bering Strait and Norton Sound construction. Beached kayaks show a distinct cockpit rim and four drill bows include a similar figure pulling a kayak on top of a small sled (04-28-10/63546, 2-6974, E44367, E44398).

Whale: Bowhead whales often rise slightly out of the water as a slender hump with a raised tail and feather spray.

Walrus: Walrus have a unique look with slender bodies, long pincer-like tusks, and tight vertical line fill. Walrus appear in the water and congregated on rectangular ice floes pursued by umiat and kayaks.

Caribou: Caribou appear infrequently and in various engraving styles posing difficulty in delineating characteristic elements of Cape Nome caribou. However, a few caribou, such as those on 2-6974 and 2-10898, appear congruent with Cape Nome pictorial imagery and feature single line barbed antlers, slender bodies with vertical line fill and slightly bent legs (see Table 18).

Dwelling: Distinctive scenes of summer fish camp dominated by conical and dome tents in rows or as a single motif. Tents often illustrated next to a campfire with feather smoke, a rack with hanging fish or animal skins, a stretched fishnet, and an umiaq on its side (Fig. 285). Villages with sod houses and feather smoke are also portrayed along with tall caches darkened with vertical lines. Memorial poles surmounted with

caribou and wolf carvings appear outside qagri on three drill bows (E24541, 246479, 1884.68.21).

Graphic: Cape Nome style drill bows show a noticeable lack of graphic elements with only barbed bands on E48527 which are engraved in a style related to Indian Point.

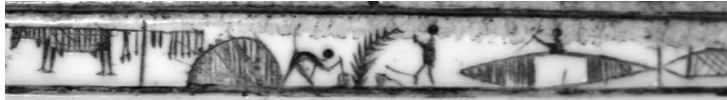


Fig. 285. Summer camp scene with rack, tent, fire, umiaq and fishnet. NMNH E24541.

Cape Darby

Drill Bows

18 (II-A-10, II-A-4455, 1971.019.001, Am1949.22.24, IV-E-1161, 54337, 67885, 2-1562, 2-4121, 13463, 20418, E44210, E45022, E48115, E48116, E48523, E48525, E129222).

Village Distribution

A group of drill bows associated with Edward Nelson's recorded provenience of Cape Darby probably referring to the village of Atnuk, located just a few miles south of Golovin Bay (Ray 1982:267). Cape Darby represented a popular trading location for Sledge Islanders as well as a convergence point for whalers, miners, collectors and eventually reindeer herders (Ray 1992:70-71).²⁷⁷

Collection History

Between 1877-81, Edward Nelson collected and identified five drill bows in this group as "Cape Darby" (20418, E44210, E48115, E48116, E48525) and made two

²⁷⁷ On March 8, 1880, Nelson describes encountering about 150 people at the village of Cape Darby which was "perched upon the side of a steep canyon the lower houses being on the edge of an abrupt slope of 40 or 50 feet to the beach upon which were a number of small hunting sleds and *bidarkies* which the natives are using daily seal hunting in the open water nearby." SIA, *Nelson Journals*.

additional acquisitions with similar pictorial imagery (E45022, E48523). Working in the St. Michael area, Lucien Turner collected drill bow/bag handle E129222, Francois Mercier acquired drill bow IV-E-1161, Charles Hall collected drill bow 2-4121 (Fig. 286), and Rudolph Neumann obtained drill bow 2-1562. Dr. Daniel Neuman acquired II-A-10 while based in Nome between 1910-20.

In 1916, J. E. Standley sold drill bow 54337 to George Heye followed a year later by Mrs. G. A. Jeffrey who sold Heye drill bow 67885. Frances N. Muncaster collected drill bow II-A-4455 on one of her far-reaching explorations to Alaska in the early twentieth century. The British Museum purchased drill bow Am1949.22.24 in 1949 from dealer William Ockelford Oldman and in 1971 the Anchorage Museum purchased bow 1971.019.001 from the Silverman Galleries in Alexandria, VA.



Fig. 286. Ivory drill bow with Cape Darby style engraving. PHMA 2-4121.

Form and Use Wear

Cape Darby drill bows encompass a range of forms including seven rectangular bows with the remainder of triangular or flat construction. Drill bow II-A-4455 has shallow scalloping carved about halfway along the upper and lower bow edges reminiscent of Punik-Thule drill bows from Point Hope and Point Barrow.²⁷⁸ Most Cape Darby drill bows include one circular or oval lash hole at each end.

²⁷⁸ Scalloped drill bows related to a Punik-Thule carving tradition typically feature graphic elements such as lines or nucleated circles rather than pictorial imagery (see Ch. 1, Fig. 12). Nelson (1983:91, Pl. XXXVI, Fig. 8) illustrates a scalloped drill bow from Point Hope and Murdoch (1988:178, Fig. 153) illustrates similar scalloped drill bows from Point Barrow.

Drill bows show moderate amounts of use wear with scratches to the surface, loss of soot fill, and secondary lash holes on two bows. Drill bow 1971.019.001 has a broken end with the damage occurring sometime before collection.²⁷⁹ Four drill bows retain portions of bearded sealskin straps with moderate use wear including fraying and dark soiled areas. Drill bow 2-1562 features a unique repair in which the carver used bearded sealskin thong to lash together the broken drill bow.

Engraving Style

Appearance: Cape Darby drill bows feature rows of reddish-brown motifs with soft outlines set at a slight angle to baselines.

Content: Dominant scenes include rows of stout caribou followed by secondary scenes of bowhead whaling, walrus hunting and village activities (Table 19).

Lines and Fill: The majority of drill bows include upper and lower baselines with the central ridge on triangular bows used as an upper baseline. All the bows except two depict upside down imagery squeezed between opposite facing motifs. Etched scenes include distinctive reddish-brown soot applied in an uneven manner resulting in variegated imagery. Motifs feature thin outlines and centers darkened with dense vertical lines or gouged areas producing an appearance of imagery stamped or recessed into the ivory. Motif outlines also include elongated barbs that extend inward creating a gap or light area in the center of motifs.

²⁷⁹ The Anchorage Museum acquired drill bow 1971.019.001 in a handmade case constructed from a wooden 2x4 with a number of drilled holes in the surface and a cutout area the exact shape of the broken drill bow.

Table 19. Pictorial elements of Cape Darby engraving style.








						
54337	2-1562	E45022	2-4121	II-A-10	1971.019.00 1	E48115

Figure: Small figures with drilled heads and gouged torsos paired with thin arms and legs. Three figures wearing Siberian slat armor appear on drill bow 20418 and II-A-4455 depicts a figure wearing an armor-type skirt while hunting caribou.

Umiag: Two thirds of the Cape Darby drill bows depict bowhead whaling in umiat typically constructed with low sides, slightly angled stern, and an angled bow. A whaling charm hangs from several of the bows. Umiat are etched using vertical or elongated barbed lines and unevenly shaded with dark soot. Hunting crews of four to five figures feature pinpoint heads and triangular torsos.

Kayak: Single-man kayaks with Bering Strait style frames consisting of straight sterns and raised bows often appear hunting walrus. The center of each kayak typically includes a single figure with a drilled head and gouged triangular torso.

Whale: Four drill bows include a distinctive bowhead whale breaching or lunging out the water and blowing spray after being harpooned (II-A-10, 20418, 2-4121, E129222) (see Table 19). Bowhead whales also appear as a slender, oblong lump with a dip behind the head and body darkened with vertical lines.

Walrus: Walrus feature curved necks, long tapered tusks and lengthy bodies gouged out or etched with vertical lines unevenly darkened with soot.

Caribou: Caribou represent the predominant motif of Cape Darby drill bows appearing on thirteen examples in rows, overlapping herds, grazing, jumping, swimming,

being hunted, and as mythical caribou dancers. The majority of caribou feature weighty bodies, broad chests often with a white patch on the neck, lowered heads, large barbed antlers and dense vertical line fill or hatching (i.e. E44210, 1971.019.001) (see Table 19). A related caribou style appears more delicate with slender torsos and thinner antlers but with similar lowered heads and vertical line fill (i.e. E48116, E48525). Two drill bows (1971.019.001, Am.1949.22.24) depict a herd of caribou as a single long rectangular body with multiple pairs of legs and antlers.

Dwelling: Large sod houses with a peaked roof, steeply angled tunnel entrance, and tall poles or whalebones set around the house. Several sod houses include a distinct mound issuing a plume of smoke at the joint between the entrance and the house interior (i.e. 2-1562, II-A-10, E48115). Dwellings usually darkened with dense vertical lines or scribble hatching.

Graphic: Very few graphic elements: drill bow IV-E-1161 includes a barbed line along the upper edge and 54337 features a single nucleated circle.

Unalakleet



Fig. 287. Edward Paneok (right) drying fish for dog food. Unalakleet, AK. 1938. Anchorage Museum at Rasmuson Center, AMRC-b75-175-406.

Village Distribution

Drill bows with a style of imagery related to the village of Unalaqhiit in southeastern Norton Sound (see Hawkes 1913; Nelson 1983:24; Ray 1992:89) (Fig. 287).

Drill Bows

23 (IV-E-53, IV-E-54, IV-E-55, IV-E-56, IV-E-58, IV-E-1116, 12591, 13460, 13472, 88-51-10/50809, SJ-II-F-12b, E24533, E24536, E24539, E24549, E33178, E33183, E33192, E38521, E38522, E38781, E75461/E75462, 86-35-364a)

Collection History

Many of Edward Nelson's first acquisitions upon his arrival in St. Michael derive from villages in southeastern Norton Sound. Between 1877-79, Nelson collected six related drill bows with one (E33192) identified as "Unalaklit" and five others with various Norton Sound attributions (E33178, E33183, E38521, E38522, E38781).

Nelson's drill bows appear analogous with five bows collected between 1868-85 by Francois Mercier (IV-E-53, IV-E-54, IV-E-55, IV-E-56, IV-E-58). Mercier's collecting excursions overlapped with Lucien Turner who also obtained five drill bows with Unalakleet imagery (88-51-10/50809, E24533, E24536, E24539, E24549) (Fig. 288).

In 1884, John McLean acquired ivory drill bow E75461/E75462 now broken in half with a designation of Sitka but with Unakleet style engraving.²⁸⁰ Field Museum director E. E. Ayer purchased two engraved drill bows (13460, 13472) in 1896 and possibly a third drill bow without accession information (12591). By 1900, the Sheldon Jackson Museum had received drill bow SJ-II-F-12 accompanied by a wood mouthpiece

²⁸⁰ Engraving characteristics including widely spaced vertical line fill, a barbed band, and deeply gouged figures relate drill bow E75461/E75462 to the Unalakleet style. The drill bow is the only known example to have an attribution of Sitka and McLean might have acquired it from a trader while in southeast Alaska.

and drill. Canadian collector George Rosengarten purchased IV-E-1116 between 1945-80 while George and Henry J. Vaux donated a four-piece bow drill set (86-35-364) to the University of Pennsylvania Museum in 1975.

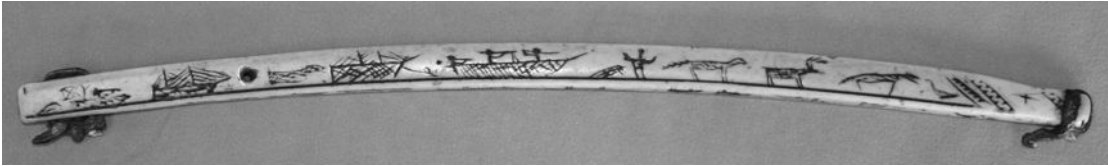


Fig. 288. Ivory drill bow with Unalakleet style engraving. NMNH E24533.

Form and Use Wear

Unalakleet drill bows have a distinctive a golden ivory color with smudged surfaces and dark soot in nicks and cracks. Most drill bows are rectangular with tapered ends and rounded edges. Drill bow 13472 includes a carved animal head on the end. The majority of drill bows include one circular lash hole at each end with sediment in and around holes indicative of use wear. Eight drill bows retain full or partial bearded sealskin straps that reveal moderate to heavy use including frayed edges and breakage.

Engraving Style

Appearance: Unalakleet drill bows characterized by dark motifs with irregular outlines evenly spaced the surfaces of golden ivory bows.

Content: Prevalent imagery includes rows of caribou, geese, walrus and flukes and simple scenes of figures hunting whale, walrus and caribou (Table 20).

Lines and Fill: Broad baselines and deeply incised motifs featuring rough outlines and centers primarily darkened with dense diagonal and scribble hatching and varied use of vertical lines and gouged out areas. About half the drill bows include upside down

imagery interspersed with motifs scattered unevenly across the surface. Heavy application of dark brown and black soot to etched motifs.

Table 20. Pictorial elements of Unalakleet engraving style.

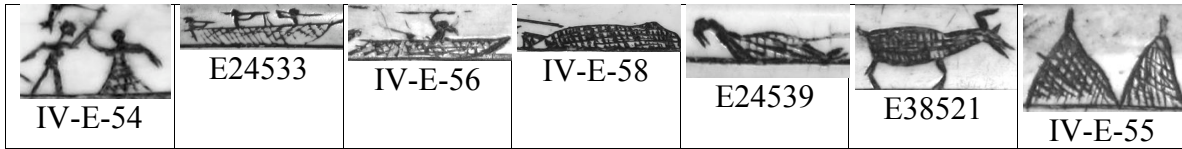


Figure: The majority of figures are illustrated with large, drilled heads, rectangular torsos and angular bent limbs in animated poses. Drill bow IV-E-54 depicts a confrontation between two figures with one appearing to wear a skirt of Siberian slat armor (see Table 20).

Umiag: Umiat typically appear long and low in the water with sides darkened with diagonal hatching and only the heads and shoulders of figures depicted. Two drill bows include whaling ships next to umiat possibly coming out to trade (E24536, E24533) (see Fig. 288).

Kayak: Kayaks predominantly of Norton Sound construction with flat stern and angled bow filled in with dense hatching or vertical lines. Kayaks are often illustrated hunting geese and small whales.

Whale: Bowhead whales appear on about one-fourth of Unalakleet style drill bows and feature large bodies filled with dense hatching aligned along the baseline (i.e. IV-E-58) or appearing to float on the surface (i.e. E33192). Two drill bows depict smaller gray whales or beluga with extended dorsal fins and flukes (E24549, 86-35-364a). Several drill bows include rows of broad flukes with dense hatching (i.e. E33192, E38522).

Walrus: Sparse inclusion of walrus; those illustrated feature short tusks, droopy heads and narrow bodies filled with vertical lines or diagonal hatching.

Caribou: Caribou appear on half the drill bows in two main styles with the first constructed using angular outlines, triangular open mouths, sharp, horn-like antlers, and pairs of bent legs that taper at the knees and swell at the hooves (i.e. E24539, E38521). The second style includes curvilinear caribou with rounded antennae-like antlers and single line bent legs (i.e. IV-E-54, IV-E-58).

Dwelling: Summer camp scenes on five drill bows feature conical tents with uneven outlines (i.e. IV-E-55, E38781). Two drill bows (IV-E-53, IV-E-54) include sod houses with domed roofs and angled underground entrances and drill bow IV-E-56 depicts a pair of frame houses with peaked roofs accompanied by a lone figure and dog. All dwellings are darkened with dense diagonal or scribble hatching.

Graphic: Unalakleet drill bows comprise a number of graphic elements related to Indian Point style drill bows suggesting a cultural connection between the two villages. However, Unalakleet graphic designs are typically etched in a sketchier or less precise manner than their Siberian Yupik counterpart. Six drill bows include barbed bands that divide scenes or appear as isolated elements (i.e. 13460, E24533). Pronged lines appear on three drill bows, two bows include nucleated circles, and drill bow 13472 features a barbed line along the entire upper side.

St. Michael



Fig. 289. "Indian houses, St. Michaels, Alaska." Native Village at St. Michael with sod and driftwood houses, fish racks and a cache with a sled and kayak frame stored on top. 1884. National Anthropological Archives, Smithsonian Institution, NAA INV 01330500.

Village Distribution

A group of drill bows associated with Iñupiat and Yup'ik carvers from the village of Taciq at St. Michael (see Bruce 1895:52; Hawkes 1913; Ray 1996:105) (Fig. 289).

Drill Bows

12 (0/62, 60.1/4227, 2-1425, 2-1561, 15.24, E24553, E33188, E43810, E44206, E44366, E45345, E274548)

Collection History

Two drill bows (2-1425, E274548) in this group depict the Alaska Commercial Company trading post at St. Michael helping to establish a provenience for this style of pictorial imagery (Figs. 286-287). Lucien Turner collected a single St. Michael style drill bow (E24553) while Edward Nelson acquired five similar bows with varied attributions from Norton Sound (E33188, E43810, E44206, E44366, E45345) The Horniman Museum holds drill bow 15.24 featuring engraved whaling ships analogous to those on E44366. George T. Emmons obtained drill bows 0/62 and 60.1/4227 and Charles Hall acquired drill bows 2-1425 and 2-1561 while working for the ACC. Lastly, J. Brady

obtained E274548 between 1878-1909 before Edward Harriman donated the bow to the Smithsonian in 1912.

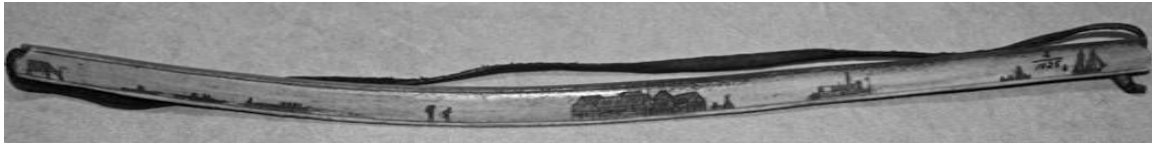


Fig. 290. Ivory drill bow with St. Michael style engraving. The drill bow illustrates the ACC post at St. Michael along with a paddle steamer and sailing ship. PHMA 2-1425.



Fig. 291. "St. Michaels, Trading Station. Alaska." The Alaska Commercial Company Trading post at St. Michael with a driftwood shelter at the end of the spit, which appear on drill bow PHMA 2-1425. Photograph in an album compiled by Alfred L. Broadbent aboard the U.S. Revenue Cutter *Bear*, 1891. Courtesy Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, WA Photos 63, object id 10001586.

Form and Use Wear

The St. Michael group consists of nine rectangular and two triangular drill bows with flat surfaces and slightly rounded edges. Drill bow 0/62 has an extreme length of 57.3 cm that would make the bow difficult to use and suggests it was made for sale, further implied by scratch-free surfaces and crisp motifs. Single circular, oval and rectangular lash holes with secondary holes on E43810 and E44206 due to worn off ends. Bow 15.24 has a broken end and E274548 has a large chunk out of the side occurring post-collection as it cuts through museum lettering. Two bows retain bearded sealskin straps while bow E24553 has a strap of commercial leather or possibly tanned caribou hide. Bows show moderate amounts of use wear including sediment build up in and

around lash holes, scratches to the surface, and areas with loss of fill particularly from baselines.

Engraving Style

Appearance: The St. Michael engraving style shares similarities with Cape Nome such as small motifs with straight outlines but St. Michael imagery appears more delicate with a predominance of Western ships and buildings. Drill bows combine evenly spaced motifs with imagery squeezed into clusters. Two bows show atypically large blank spaces suggesting a state of incompleteness (2-1425, E43810).

Content: Predominant scenes of hunting caribou and herding reindeer along with images of Western figures, ships and buildings (Table 21).

Lines and Fill: All the drill bows include upper and lower baselines and eight depict upside down imagery. Motifs feature shallow to medium deep incisions with centers darkened using thin vertical lines or gouged areas filled with graphite and dark brown soot. Motifs with fine lines appear delicate and small, often constricted to the lower half of a side.

Table 21. Pictorial elements of St. Michael engraving style.





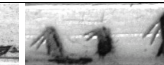


						
E44206	2-1561	E44366	2-1425	E43810	15.24	E274548

Figure: Four drill bows depicts Westerners in broad-rimmed hats standing outside a canvas tent (E44366), playing with a dog (E44206), sporting a beard and kneeling before caribou (E45345), and waving a hand in greeting (15.24). Native figures are shown paddling kayaks and umiat out to Western ships, hunting and butchering caribou

and running in snowshoes. Five drill bows feature a distinct figure lying on the ground with a raised shotgun and five bows show figures carrying staffs with packs slung across their backs (see Table 21 and Fig. 290). Western figures are usually depicted with facial characteristics and clothing darkened with thin lines while Native figures typically feature round, drilled heads and bodies darkened by gouging out the centers.

Umiak: Umiat show more variance than other motifs but most have vertical line fill and appear long and low in the water with straight sterns and pointed bows carrying crews of four to five figures. Western whaling ships appear on six drill bows and paddle steamers on two bows. Whaling ships are illustrated in profile and frontal views as a single ship, in pairs and as a fleet. Ships include fine lines with detailed masts, rigging and bowsprits. Paddle steamers also feature detailed construction of cabins, windows, smokestacks and waving flags.

Kayak: Kayaks have vertical line fill and appear to be of long Norton Sound construction shown carrying single figures with drilled heads.

Whale: Whales are noticeably absent on St. Michael drill bows.

Walrus: Walrus have densely filled bodies and elliptical heads with pairs of thin, toothpick-like tusks.

Caribou: Caribou and reindeer are the predominant animals of St. Michael imagery and appear on ten drill bows in overlapped herds, standing in rows, lying down, grazing, swimming and being hunted and field dressed. Caribou typically have small oblong heads, thin antlers in various stages of growth, gently sloped backs, curved underbellies and spindly long legs with high knees bent at a slight angle. Caribou bodies

are often darkened with dense vertical lines while heads may have vertical line fill or gouged centers.

Dwelling: Western tents and buildings appear on half the St. Michael drill bows further illustrating an intertwining of Native and non-Native lifestyles. Canvas tents appear on E44366 and E274548 while the latter also shows a mounted flag in front of a row of round tents possibly on the beach at St. Michael or Cape Nome. A form of rectangular blockhouse with square windows appears on bow 15.24 while bow E44206 depicts a long rectangular building with a sloped roof.²⁸¹ As noted earlier, drill bows 2-1425 and E274548 depict a conglomeration of buildings that illustrate varying views of the trading post at St. Michael.

Graphic: Sparse decorative elements with a few nucleated circles, barbed bands and barbed lines; the latter element used on bow E274548 to represent grass.

Pastolik

Village Distribution

A group of predominantly bone drill bows that derive from the Native village of Pastolik located at the mouth of the Yukon River (Dall 1870:236-37; Jacobsen 1977:170; Nelson 1983:128, 263).

Drill Bows

14 (II-A-379b, 0/498, 13461, E24538, E24543, E24547, E24548, E24550, E24551, E24552, E24557, E33189, E63621, E129223)

²⁸¹ The rectangular building on drill bow E44206 closely resembles the superintendent's house at the Port Clarence reindeer station further indicated by the presence of Western figures and a herd of reindeer or caribou. Detailed information on the Port Clarence Reindeer Station can be found in Ellen Louise Kittredge Lopp, *Ice Window: Letters from a Bering Strait Village, 1892-1902*, Kathleen Lopp Smith and Verbeck Smith (eds.) (Fairbanks: University of Alaska Press, 2001), for an illustration of the superintendent's house see p. 171, Fig. 30.

Collection History

While stationed in St. Michael, Edward Nelson collected antler drill bow E33189 he recorded as “Pastolik” and later obtained similarly engraved drill bow E63621. Nelson’s acquisitions and the remainder of drill bows in this group relate to two engraved bone knives acquired from Pastolik by William Dall between 1867-68 (Fig. 292).²⁸² Lucien Turner made the largest collection of Pastolik style carvings with nine drill bows he identified simply as “Norton Sound” (E24538, E24543, E24547, E24548, E24550, E24551, E24552, E24557, E129223) (Fig. 293). George T. Emmons collected two Pastolik style drill bows (0/498, II-A-379a) and E. E. Ayer acquired 13461 from Alaska sometime before 1897.

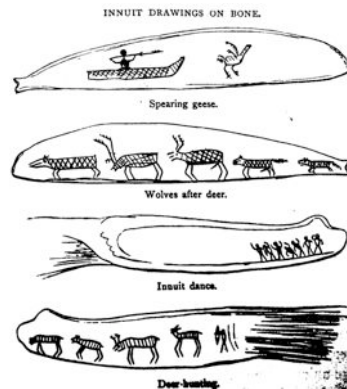


Fig. 292. “Inuit Drawings on Bone.” Two engraved bone knives acquired from Pastolik by William Dall (from Dall 1870:237).

²⁸² William Dall visited Pastolik at least twice between 1867-68 and described it as a village comprising about thirty sod and driftwood houses with inhabitants who hunted beluga whales with lances and caught seals in nets. Dall states Pastolik carvers made small ivory carvings from beluga teeth and traded with northern coastal Natives for larger walrus tusks. In describing Pastolik engraving Dall (1870:237) comments, “The Inuit have also a custom of making on flat pieces of bone, rude drawings of animals, hunting parties and similar things.”

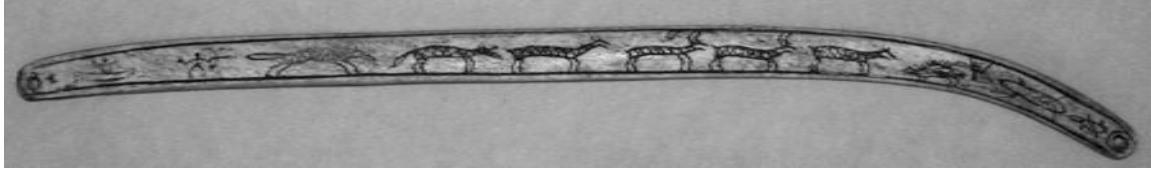


Fig. 293. Antler drill bow with Pastolik style engraving. NMNH E24552.

Form and Use Wear

Pastolik drill bows are characterized by the predominance of antler (12) rather than ivory (2) bows. Drill bows tend to be flat or rectangular with two wide and two narrow sides. Four bows feature curved ends reflecting the inward bend of caribou antlers. Bows include single circular lash holes or narrow rectangular slots on each end. Several bows show surface abrasions with subsequent loss of dark fill suggesting light to moderate usage. Five drill bows retain bearded sealskin straps and appear well worn, particularly in the central area that wraps around a drill.

Engraving Style

Appearance: Pictorial imagery on Pastolik drill bows appears balanced with engraved motifs as isolated elements or evenly spaced within simplified scenes of hunting and camping.

Content: Pictorial scenes include animals in rows or figures engaged in hunting caribou, working at fish camp, or battling mythological creatures. Predominance of tundra and riverine animals including caribou, wolves, weasels, porcupine, geese and fish (Table 22).

Lines and Fill: Pastolik drill bows feature motifs with broad outlines filled with widely spaced diagonal hatching. Bows of light brown antler and ivory include engraved imagery filled with dark black soot or ash while dark antler drill bows feature deeply

incised motifs with exposed bone left white. Large motifs stretch from upper to lower baselines and are evenly spaced across the surface. Animals with heavy outlines are left open in the center or filled with widely spaced vertical lines or diagonal hatching. Animal legs flow from lower torso outlines and comprise single lines bent at the knees. Caribou and wolves often feature interrupted jaw lines creating an open mouth appearance.

Table 22. Pictorial elements of Pastolik engraving style.

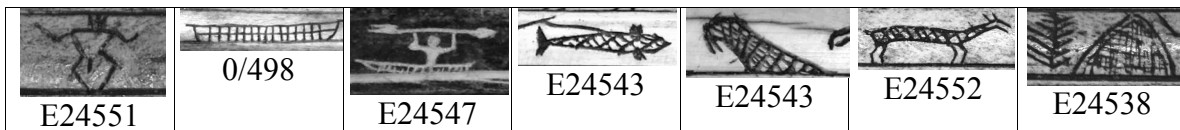


Figure: Individual figures feature inverted triangular torsos with raised arms and spread legs bent at the knees.

Umiq: Umiq often have high sides with curved bows and straight sterns left empty or carrying hunting crews from three to four figures.

Kayak: Kayaks relate to Bering Strait construction with short frames, pointed bows and squared sterns. Kayakers often have raised arms holding a paddle or spear.

Whale: Noticeable absence of bowhead whales. Three drill bows depict small beluga or gray whales with rounded heads, spread fins and fluke, and sides darkened with open diagonal hatching.

Walrus: Sparse inclusion of walrus; those represented generally feature short tusks and tubular bodies with hatched lines connecting the body to the head area.

Caribou: Caribou depicted with open muzzles, heads that merge into narrow, rectangular bodies filled with diagonal hatching, and small, pointy tails. Antlers represented by two short lines or longer curved lines with a few barbs.

Dwelling: Prevalence of summer camp scenes depicting broad triangular tents darkened with dense hatching.

Graphic: Six drill bows incorporate graphic elements including chevrons, wide bands of crossed lines, single lines with paired spurs at measured intervals and incised lines around lash holes.

Nome



Fig. 294. “Eskimo Village and School House. Nome, Alaska.” Photograph by H. G. Kaiser, 1911-20. Alaska State Library, Historical Collections, ASL-P307-0023.

Drill Bows

Nome: 15 (II-A-2, II-A-3, II-A-4, II-A-5, II-A-8, II-A-4105, II-A-7340, 1972.066.001, Am1925.0508.3, 01.27.01, 49588, 94635, E360422, 29-151-279, 101586)

Naomoff: 4 (49587, 49589, 62376, 62378)

Village Distribution

The Nome Gold Rush relocated the tourist trade north from St. Michael and resulted in personal acquisitions of engraved drill bows made by itinerant ivory carvers from King Island, Little Diomedé, Wales and St. Lawrence Island camped along the

beach (Fig. 294).²⁸³ Four drill bows made by a single carver, possibly the ACC agent Vladimir Naomoff, relate to the Nome practice of engraving decorative, repeated motifs, and are discussed in detail in Chapter Eight.

Collection History

Drill bows featuring Nome style of pictorial engraving derive from the turn of the twentieth century with the largest collection made by Dr. Daniel Neuman who acquired six drills bows in this group between 1910-20 (II-A-2, II-A-3, II-A-4, II-A-5, II-A-8, II-A-7340) (Fig. 295).²⁸⁴ Alfred P. Swineford made the earliest known acquisition of a Nome style drill bow (II-A-4105) probably between 1885-89 while serving as governor of the District of Alaska. In 1897 the Field Museum received drill bow 49588 depicting large sod houses darkened with dense lines analogous to engraved drill bow 01.27.01 at the Carrie McLain Memorial Museum.

In 1919 George Heye purchased bow drill set 94635 with a flat ivory bow related to Little Diomed construction and motifs engraved with a rocker etching technique. Dr. Judson Daland also acquired a three-piece bow drill set (29-151-279) which he donated to the University of Pennsylvania Museum in 1923. Herbert Charles Coleman collected drill bow Am1925.0508.3 with records describing the bow as coming from Cape Nome. Victor Justice Evans obtained drill bow E360422 with Nome style imagery by 1931.

²⁸³ During the first decade of the twentieth century, Bellarmine Lafortune describes Natives from outlying villages arriving in Nome by early July after spring hunting and notes, “The various groups camped in different places . . . King Islanders came in 8 to 12 umiat with 100 or more people camped east of Nome; Diomeders and others camped on the ‘Sandspit’ west of town . . . The Eskimos traded native goods among themselves and sold their old artifacts, fur goods and ivory carvings to the white man.” (Renner 1979:14).

²⁸⁴ Daniel Neuman’s handwritten catalog identifies the six drill bows as Nome, King Island, Cape Prince of Wales and Little Diomed. Alaska State Museum Accession Files, Neuman Collection. Neuman probably acquired the drill bows during his travels across Seward Peninsula as well as from villagers camped on the beach at Nome.

Finally, the Anchorage Museum acquired drill bow 1972.066.001 with widely spaced motifs similar to ivory drill bow 101586 at the Wells Fargo Alaskan Heritage Museum.

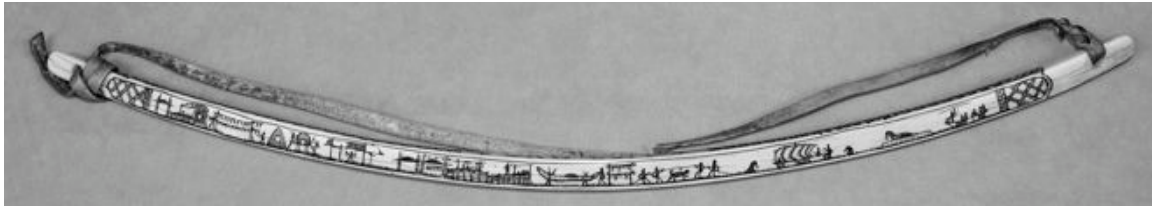


Fig. 295. Ivory drill bow with Nome style engraving. ASM II-A-7340.

Form and Use Wear

Ivory carvers from various Bering Strait villages worked in the Nome style of pictorial engraving resulting in a range of drill bow forms including flat, triangular, rectangular and square bows. The majority of drill bows include one circular or oval lash holes at each end; two bows feature grooved and darkened areas around lash holes suggesting strap abrasion from use. Eight drill bows retain bearded sealskin straps with the strap on bow II-A-3 mended using a secondary piece of skin. All the straps show moderate to heavy use wear and appear incongruent with the relatively smooth, scratch-free surfaces of the ivory bows and their bold engravings with crisp outlines. The discrepancy between well-worn straps and seemingly unused bows suggests carvers repurposed old drill bow straps or used lengths of bearded sealskin rope they had on hand for hunting seals and walrus. If carvers produced the majority of Nome style drill bows to sell, a bearded sealskin strap could enhance the authenticity of a drill bow as an ancient implement and subsequently increase its commodity value as an Arctic curio.

Engraving Style

Appearance: The group of Nome drill bows represents a confluence of pictorial engraving traditions posing difficulty in determining a single characteristic style.





However, the bows share similar traits of appearing unused, with dark motifs incorporating multiple fill techniques, in scenes evenly spaced across the surface. Many drill bows also feature blank spaces around motifs and three bows (II-A-3, II-A-4, II-A-4105) include wide sections of unfilled areas suggesting exchange before completion.

Content: Predominant scenes of spring and summer activities including: pulling seals, hunting polar bears, walrus and whales, travelling in umiat and working at fish camp (Table 23). Village scenes include sod houses, yurts with nearby reindeer, and wooden frame structures. Engraved scenes also combine large and small-scale motifs as seen on drill bow 49588 which depicts small figures on top of a sod house catching fish twice their size.

Lines and Fill: Ivory engravers typically produced Nome style imagery using shallow to medium deep incisions filled with soot, graphite and India ink. All the drill bows include baselines that range from light, shallow incisions to dark, broad lines. The majority of drill bows feature a single row of motifs aligned across the lower baseline and only two bows (II-A-4105, 1972.066.001) include upside down imagery. Nome style drill bows also encompass the broadest range of etching techniques including loose and dense vertical lines, square and scribble hatching, nicks and barbs, scribble lines and gouged areas. Six drill bows also feature the etching technique of rocker fill in which a flat metal

tool is rocked across the ivory surface producing zigzag lines.²⁸⁵ Several Nome drill bows combine new and old etching techniques as seen on II-A-4 which depicts large figures shaded in with rocker technique next to a village scene with sod houses darkened with vertical lines (see Ch. 2, Fig. 90).

Table 23. Pictorial elements of Nome engraving style.

						
29-151-279	1972.066.00 1	E360422	II-A-5	II-A-4	94635	Am1925.050 8.3

Motifs: Nome drill bows feature variable construction of motifs with descriptions for two substyles provided in the following section.

Substyle A: A group of three drill bows (II-A-7340, 29-151-279, Am1925.0508.3) of distinctive square shape with four engraved sides, upper and lower baselines, and dark motifs. Predominance of graphic elements including nucleated circles, barbed lines, pairs of chevrons, interlocked chevrons, scales, checkerboard squares, and crossed bands (see Fig. 295). Pictorial motifs feature sketchy outlines and are primarily filled with dense vertical lines and scribble hatching. A distinct umiak hoisting a sail “stitched” with barbs appears on II-A-7340 with a slight variation appearing on Nome drill bow 1972.066.001. Likewise, drill bows II-A-7340 and 29-151-279 share similar motifs of figures cutting beluga up on the beach and swimming walrus with droopy heads.

²⁸⁵ Rocker etching technique originated during the early twentieth century tourist trade and became one of the most widely used techniques by King Island and Little Diomed ivory carvers. Examples of engraved carvings with rocker technique are published in Larsen and Dickey, 1982, 92-93. Rocker technique enjoyed popularity through the 1950s and faded from use as Iñupiat carvers moved to etching with metal styluses and carving in the round rather than engraving imagery. King Island elder John Penatac (September 2012) retains his rocker tool but nowadays carves ivory mostly with a Dremel.

Substyle B: A pair of drill bows (E360422, 94635) of shorter length with squared edges indicative of a carver from Little Diomed working in the intermixed Nome style of ivory engraving. The two bows feature a heavy use of rocker fill as seen in the shading of walrus with extended flippers and Bering Strait style kayaks with raised bows. A characteristic motif on the two bows includes human figures with square torsos that frequently appear on older drill bows from Little Diomed (i.e. E43931, ET16060). Likewise, similar weighty figures appear with yurts and reindeer on Little Diomed drill bows E360422, 94635 and Am1925.0508.3. Finally, drill bow 94635 relates to Nome bow 1972.066.001 through the depiction of three drummers seated next to dancers with raised arms and bent legs.

As indicated by these two substyles, carvers working in a general Nome style appear to have borrowed motifs and etching techniques from one another that they then incorporated and adapted according to regional engraving traditions and personal preference. The variety yet interconnectedness of imagery within the Nome group seems logical if one recalls that during this period, c.1900-20, carvers from different villages were working side by side at Nome, probably swapping stories along with visual ideas.

Modern

Drill Bows

3 (II-A-7, II-A-6577, E360421)

Collection History

Private collectors acquired this group of three drill bows during the twentieth century when many engraved ivories were being made for sale. Daniel Neuman collected the earliest drill bow (II-A-7) in this group while an itinerant physician and resident of

Nome between 1910-20 (Fig. 296). Victor Justice Evans acquired drill bow E360421 sometime before 1931 and Keith and Alice Fuller purchased bow drill set II-A-6577 with an ivory bow engraved by Teddy Sockpick between 1964-80 before selling the pieces to the Alaska State Museum in 1980.²⁸⁶



Fig. 296. Ivory drill bow with Modern style engraving. ASM II-A-7.

Form and Use Wear

Flat and cylindrical drill bows with one or two sides engraved. Single circular or oval lash holes on each end. Bows show little to no use wear indicating creation for the tourist market. Only drill bow II-A-7 includes a sealskin strap that appears worn out and incongruous with the seemingly new drill bow suggesting the carver repurposed old sealskin lashing to increase the implement's market potential.

Engraving Style

Appearance: Motifs are evenly spaced along the lower edges of drill bows and appear to float as isolated elements. Land or water depicted around a few motifs with perspective achieved through the placement of motifs in front of horizon lines.

Content: Large motifs of fishing, hunting, sod houses and northern fauna including bowhead whale, walrus, caribou, polar bear, seal and fish (Table 24).

Lines and Fill: Modern style drill bows feature imagery with shallow incisions, fine lines and the use of short nicks or brushstroke lines to fill in and shade motifs.

²⁸⁶ Collection records kept by Keith and Alice Fuller state three carvers from Diomedes and Nome worked on the drill bow: bow carved by Thomas Asdi (Diomedes); etchings by Teddy Sockpick (Diomedes) and bearded sealskin from Kivatoruk Moses. Alaska State Museum, Accession 80-30-1076.

Carvers rubbed black India ink into engravings. Bows do not have baselines or upside down imagery.

Table 24. Pictorial elements of Modern engraving style.







						
II-A-6577	II-A-7	E360421	II-A-7	II-A-7	II-A-6577	E360421

Figure: Drill bows II-A-6577 and E360421 include detailed figures wearing parkas while drill bow II-A-7 features simple line figures.

Umiak: Drill bows II-A-7 and II-A-6577 illustrate umiat with triangular sails surrounded by water lines.

Kayak: Drill bow II-A-7 depicts a Bering Strait style kayak while E360421 includes a kayak of Norton Sound construction with notched bow and stern.

Whale: Only drill bow II-A-7 depicts bowhead whales, each comprised of a raised fluke, spray, and body darkened with diagonal brushstroke lines.

Walrus: Drill bow II-A-7 also includes the only Modern style of walrus and depicts walrus heads with large crossed tusks bobbing above the water.

Caribou: Drill bow II-A-6577 includes a detailed caribou and II-A-7 features large caribou with branch-like antlers constructed of simple lines.

Dwelling: Drill bows II-A-6577 and E360421 include finely etched sod houses with caches and drill bow II-A-7 depicts a sod house darkened with wide vertical lines.

Graphic: Absence of graphic elements.

CHAPTER 8

NEGOTIATING IDENTITIES THROUGH STYLE ADAPTATIONS AND MARKET DEMAND

Engraving Style and Cultural Identity

Despite material and functional constraints, Bering Strait drill bows reveal a range of morphological characteristics linked to regional carving traditions. Most noticeably, drill bows from Point Hope are long with rounded edges making bows appear almost cylindrical. In contrast, Little Diomedé carvers produced square drill bows of short length with angular edges. Other carvers, such as those from Cape Prince of Wales, chose to create rectangular drill bows with two wide and two narrow sides while carvers from Sledge Island and Cape Nome tended to carve triangular drill bows with two angled sides and a wider flat side. Formal variability within drill bow construction derives from a range of causal factors including knowledge and experience with carving ivory as well as influence and feedback from other carvers (Schiffer and Skibo 1997). In a similar manner, drill bow artists from different regions drew from distinct repertoires of stylistic choices to engrave pictorial motifs.

Use of engraving styles to relay messages of territorial or political group affiliation as delineated by Wobst (1977) seems doubtful considering the personal nature of drill bows. Instead, engraving characteristics appear to represent a form of micro-identity related to a carver's familial identity within his own village. Henry Koonook (April 2010:18) notes carvers and hunters in Point Hope continue to use family marks as a form of identification, "on all our hunting tools, our whaling gear, the paddles, our rifles, the harpoons, we have a family mark. Ours is a line. All the crews have their own mark."

Likewise, Jon Ipalook (April 2012:11) integrates his family's whaling sign into carvings as a form of familial identification stating, "Usually with my whaling sign, I like to incorporate the 'LL' insignia...So that's the Lane's whaling crew out of Point Hope, which has been in operation from my grandmother for a number of years after the passing of grandfather."

Similar to linear hunting marks, pictorial elements also express familial identity within a community. Brian Sockpick notes carvers from Shishmaref can easily distinguish each other's work by their style of etching. Sockpick (April 2012:7) notes his father Teddy Sockpick engraved caribou in the style of old drill bows, which he transformed into his own style stating, "I like to do it like 3-D. Big, like a ptarmigan in the front and something smaller in the background. That's my style." (Figs. 297-298). Etching style can also represent familial patrimony as noted by Brian Sockpick's nephew Gary Sockpick (June 2012:4), "I combine my uncle Brian's style, my dad's and Teddy's. That one's my style now." Art Oomittuk (April 2010:10) also expresses a sense of family ownership tied to one of his carving elements explaining, "This is a gift from my father because he created that image." Nineteenth century drill bow carvers worked within their private homes as well as public spaces such as the qagri. Within the communal area of the qagri, local carvers could have been able to recognize micro-elements of drill bow motifs and identify the carver's family association.



Fig. 297. Brian Sockpick holding two of his carved ivory bracelets, engraved ivory pieces, and the etcher handed down from his father. Nome, AK. 2012.



Fig. 298. Engraved ivory carvings by Brian Sockpick on display in Chukotka-Alaska Inc. Nome, AK. 2012.

Western Trading and Development of a Market

Adelbert von Chamisso describes one of the earliest exchanges for small ivory carvings that can be interpreted as “curios” aboard the *Rurik* at Cape Espenberg on August 1, 1816:

Several baidares followed us to the ship, and there we traded and joked with their occupants. They seemed to understand trade very well. They obtained tobacco and less-esteemed trifles from us, such as knives, mirrors, etc., but we were not able to offer them the long knives that they wanted for their valuable furs. From them we were able to obtain ivory articles, figurines of animals and men, various tools, ornaments, etc. (Chamisso 1986:87)

Louis Choris illustrated the small carvings including ivory seals, geese, a fox, polar bear, caribou, figure and miniature axe with an inscription identifying the carvings as originating from Kotzebue Sound and the Chukchi coast (Fig. 299). Close to thirty years later in 1848, William Hulme Hooper visited the village of Wootair along the eastern Chukotka shore and describes a similar market for small ivory carvings including models and animals made at the request of visiting crewmembers:

These enjoy a monopoly in their peculiar pursuits . . . and as, of course, curiosities and specimens of the progress of arts and sciences were in great request, a fine harvest was reaped by the more ingenious. In addition to the articles of clothing . . . as brought for barter, many really interesting nick-nacks were produced. Models of sledges, and of household furniture, pipes and toys of ivory, among which were ducks, seals, dogs&c., made for their children, and evidencing great taste and variety . . . Walrus tusks also brought a good price, and were at first supplied in profusion. The exchanges on our sides consisted of large and small knives, beads, files, saws, tobacco, trade-cloth, needles, thimbles, looking-glasses, and any little odds and ends which we happened to possess.
(Hooper 1853:56-57)

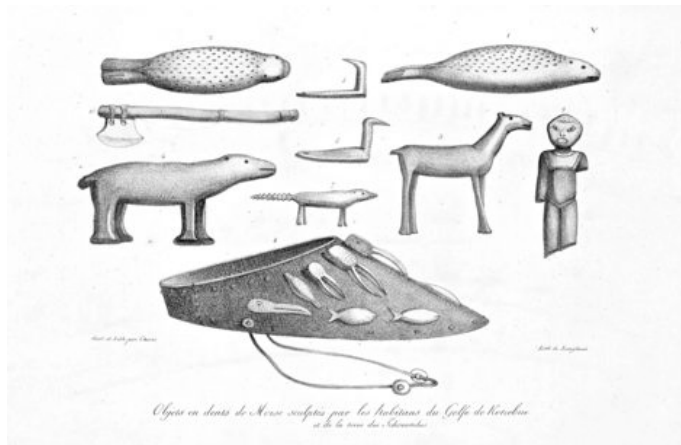


Fig. 299. “Objects carved of walrus teeth from the inhabitants of the Gulf of Kotzebue and the land of the Chukchi.” Collected in August 1816 by Otto von Kotzebue (from Choris 1822:Pl. 5).

Accompanying a mid nineteenth century increase of sailing ships, ivory carvers from coastal villages traveled to Port Clarence to make and sell curios to passing whalers and field collectors such as Adolf Eric Nordenskiöld and Miner Bruce (Fig. 300) (Nordenskiöld 1881; VanStone 1976). At the same time, other carvers found St. Michael a lucrative place to camp and sell engraved ivories and articles of clothing to museum ethnographers and agents of the ACC (Fig. 301). Carvers integrated new forms and practices into their existing canons including carving ivory pipes and cribbage boards often decorated with pictorial motifs (Fig. 302). Borden (1928:132) describes the

prevalence of engraved cribbage boards during the peak years of the tourist trade in Norton Sound, “along the beach just outside of Nome, where the men work as longshoremen, hauling goods off and on boats, and carve ivory in their spare time. We approached a large *umiak*, or skin-boat resting on its side, under which sat three men busily occupied carving figures on an ivory tusk. As usual, it was the small ivory cribbage board found everywhere in Alaska.”



Fig. 300. Alaska Natives at Port Clarence making souvenirs. The drill bow carver is using uses an ivory bow with a scalloped edge similar to those from Point Barrow. Photograph by Eric A. Hegg, 1900. University of Washington Libraries, Special Collections Division, PH Coll 274.



Fig. 301. “Eskimo family at work carving ivory and sewing fur clothing. St. Michael.” Photograph by J. C. Cantwell, 1899-1901 (from Cantwell 1902: facing pg. 208).²⁸⁷

Fig. 302. “Making a crib-board.” The drill bow carver from Fig. 301 working on an ivory cribbage board engraved with umiat hunting bowhead whales. Files, a short knife and pieces of sandpaper are at the carver’s feet. The canvas tent, carver’s gold ring and wool boots indicate a growing assimilation of Western goods. St. Michael, AK. National Anthropological Archives, Smithsonian Institution, NAA INV 01471200.

Transference of engraved pictorial imagery from functional, internally directed implements to commercial, made-for-export art represents a move from a ritualized sphere of carving to a secular, political art market (Benjamin 1969). In a similar manner, application of engraved imagery to ivory pipes, cribbage boards and whole tusks reflects contact or interaction with outside cultures producing a category of objects described by Nelson Graburn (2006:414) as “arts of acculturation.” Three late nineteenth century ivory carvers exemplify the modification of forms and meanings following cross-cultural interactions and the development of outside consumer demand.







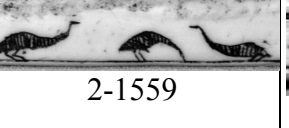

A Drill Bow Carver from Golovin

During the height of nineteenth century pictorial engraving, one carver from northern Norton Sound employed a unique repertoire of motifs in finely executed scenes of subsistence hunting and Western activity. Ten engraved objects can be attributed to this particular carver’s hand including six ivory drill bows and four flat sections of bone and ivory (Appendix G). Several distinct motifs link these ten objects including: an umiaq with figures harpooning a whale and holding a sealskin float, a fishing camp with a triangular tent, fish rack and upturned umiaq, two figures embracing, geese with long

²⁸⁷ Cantwell (1902:209), “At St. Michael a few of their scanty means of support by manufacturing articles of native clothing and trinkets – mostly carved out of ivory and bone – for sale to the whites, and to a very limited extent by employment as laborers with the trading companies doing business in the country.”

necks, a basket sled pulled by dogs with bushy tails, and Westerners with curved brim hats, ships, horses and a four-paneled canvas tent (Table 26). The dark motifs are small and evenly spaced with dense vertical line fill and crisp outlines. Although this carver remains unnamed, insight into his life history can be gained through reconnecting recorded object proveniences with the engraved imagery.

Table 25. Pictorial elements of the Golovin carver.

 E129277	 E24563	 2-6838	 E176172
 246479	 E44213	 2-1559	 04-28-10/63546

Collector locations suggest this carver lived and traveled along the coast of Norton Sound from Golovin Bay to St. Michael. Lucien Turner made the earliest acquisition of this carver's work, E24563, between 1874-76 while stationed in St. Michael and acquired E129277 accessioned into the NMNH in 1887. Shortly after Turner's departure from Norton Sound, Edward Nelson acquired E176172 from Golovin Bay and E44213 from Cape Darby. While working for the Alaska Commercial Company from 1894-1901, Charles Hall picked up three carvings by this artist including drill bow 2-1559, drill bow 04-28-10/63546, and flat carving 2-567.²⁸⁸ Another member of the ACC, possibly Rudolf Neumann, acquired carving 2-6838 sometime before 1898. Dr. H. M. W. Edmonds collected bow 2-6974 between 1889-99 during three trips to St. Michael

²⁸⁸ The Peabody Museum received drill bow 04-28-10/63546 from a 1904 exchange with the Phoebe A. Hearst Museum, Peabody Museum Archives, Accession 04-28-10.

and in 1972, David Currie made an exchange with the Heye Museum offering up drill bow 246479.

Edward Nelson acquired drill bow E176172 from Golovin Bay during 1881 and recorded the location as “Golovina” probably referring to the Iñupiat-Yup’ik village of Chinik located along the rocky coast (Fig. 303).²⁸⁹ During the spring of 1880, Nelson visited the Golovin settlement and described it as a summer fishing village with about twenty residents living in half a dozen large and particularly clean houses.²⁹⁰ The following summer on June 18, 1881, the two-masted schooner *W. F. March* arrived in Golovin Bay, sailed by Captain William M. Gallagher and carrying a crew of ten miners/stockholders to work the newly founded Omilak Mine (Muir 1917:229; Ray 1992:201-02; Pratt 2009:322).²⁹¹ Drill bow E176172 appears to depict the *W. F. March* anchored in the rough Golovin Bay, characterized by a boulder on the schooner’s left, with a crew of miners wearing curved brim hats disembarking in small barges and setting up four-paneled tents on the shore (Fig. 304a-b). Nelson reports encountering the miners in Golovin Bay on July 10, 1881:

We had a fine sail of a couple of hours and passing through the narrow strait (across which extends a bar at two fathoms) connecting the outer and inner bay; we soon came up to and boarded the Schooner *W. F. March* with a party of

²⁸⁹ Early nineteenth century Native settlers in the Golovin Bay and lower Fish River area might have been Unaluk-speakers from Chinik or Kauwerak speakers from the Fish River (Ray 1992:105). Drill bow E176172 perhaps represents the most well-known nineteenth century engraved drill bow, appearing in numerous publications and exhibits (i.e. Pratt 2009:325-26; Ray 1982:264).

²⁹⁰ SIA, *Nelson Journals*, March 7, 1880.

²⁹¹ Ray (1982:267) revised her original argument that drill bow E176172 represented the Omilak miners of 1881 and instead suggested the Westerners represented members of the 1866-67 Western Union Telegraph Expedition. Ray based her argument on the presence of similar Western figures on carving 129287 collected by Lucien Turner assumedly before the 1881 arrival of the miners. However, the NMNH did not accession carving 129287 until 1887 thus supporting the interpretation that the scene on drill bow E176172 represents the 1881 arrival of the *W. F. March* to Golovin Bay.

prospectors on board. They are prospecting the country to the N and NE of the head of the Bay for galena, bearing silver, and say they have found ore paying \$150 per ton, but have not found whether it is in sufficient quantity yet to pay working. A Col. Williams of Oakland, California is leader of the party, ten of whom are absent prospecting. They report Fish River which connects Port Clarence and Golovina Bay to be too shallow to admit a whale boat at its mouth. Their mine they say is three days walk overland. (SIA, *Nelson Journals*, July 10, 1881)

Following three-months of prospecting, the *W. F. March* was lost in a gale on the north side of Golovin Bay on August 15, 1881 and the miners soon departed in canoes and a boat for St. Michael (Muir 1917:229). Nelson recounts meeting the Omilak miners outside the fort at St. Michael on September 16, 1881 at which time he might have purchased drill bow E176172 if he hadn't acquired it earlier that summer while in Golovin.²⁹²



Fig. 303. "Native villagers and Western miners or traders at Chiugaq, Golovin." Structures behind the group include a traditional driftwood shelter, canvas tents, covered cache and sod and driftwood house. Three women sit in a small wooden boat probably belonging to the Omilak miners; an anvil and whetstone are to their right (from United States Revenue-Cutter Service 1899: facing pg. 46).



²⁹² SIA, *Nelson Journals*, September 16, 1881.



Fig. 304a-b. Two views of an engraved ivory drill bow collected by Edward Nelson from Golovin Bay. NMNH E176172.

The 1881 presence of the Omilak miners, followed by the arrival of another mining party in 1892, made a strong impression on the carver of drill bow E176172. The Golovin carver engraved five additional objects with similar Western figures wearing a felt hat with a tall crown and curved brim (Fig. 305). First, carving E129277 appears to illustrate the 1881 departure of the Omilak miners; one Western figure rolls a barrel to a waiting barge, another figure carries a bucket and a third figure seems to be packing a trunk inside a four-paneled tent. Next, drill bow E44213 illustrates two Westerners in hats aboard a small barge paddling out from a three-masted ship to meet umiat with sails probably coming to trade. Drill bow 2-1559 depicts a pair of two-masted ships with the larger vessel featuring a white rectangular superstructure, possibly representing the Revenue Cutter *Corwin* in Golovin Bay (Figs. 306-307). Small figures on 2-1559 wear curved brim hats and raise their hands in greeting while two larger figures ride horses on the beach, and a Western figure smoking a pipe lines up to receive a drink from an anthropomorphic creature stirring a whiskey barrel.

Westerners riding and driving horses with similar bristly manes and bushy tails also appear on an engraved section of ivory 2-567. The reverse of 2-567 depicts a two-masted vessel along with a form of steamboat that plied the waters around St. Michael. Finally, drill bow 04-28-10/63546 depicts a Western hat-wearing figure aboard a small riverboat with a figure in the bow wielding an axe to perhaps chop through ice (see Appendix F).

Charles Hall acquired this last drill bow while stationed at St. Michael between 1894-1901 and the scene might represent a miner or trader attempting to travel up the lower Yukon River.



Fig. 305. An Alaska Native family at St. Michael wearing a mix of Native and Western clothing including a style of wool hat illustrated by the drill bow carver from Golovin. Photograph by Edward W. Nelson, 1879. National Anthropological Archives, Smithsonian Institution, NAA INV 01435400.



Fig. 306. Illustration of the U.S. Revenue Cutter *Corwin* engraved on ivory drill bow PHMA 2-1559.

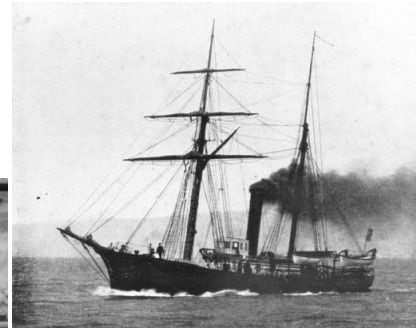


Fig. 307. Photograph of the *Corwin* (from Fitzhugh and Kaplan 1982:37).

Perhaps this group of ten objects represents the clearest image of socio-cultural transformations occurring in Norton Sound during the late nineteenth century. For example, drill bow E176172 depicts an intersection of Native and Western ideologies and appears to demonstrate a conflict between traditional and foreign attitudes towards whaling. The upper, or convex side of the bow, depicts an American whaling vessel

outside of a camp with foreigners, hands on hips, making a powerful statement about assumed colonial authority. On the lower or concave side of the bow, Native whalers participate in traditional hunting via umiat and harpoons.²⁹³ The third side of this bow depicts ceremonial activities including a group of figures within a *qagri* dancing to the beat of stretched skin drums. The drill bow's combination of Native and non-Native subjects, such as the skin umiat and American whaling ships, represent a form of story or autoethnography as defined by Mary Louise Pratt (1998:28) in which images, "are merged or infiltrated to varying degrees with indigenous idioms to create self-representations intended to intervene in metropolitan modes of understanding."

The Golovin carver appears to have experienced a stronghold in Bering Sea traditions and subsistence lifestyles of past generations. His detailed engravings of hunting bear, bowhead, seal and geese show a familiarity with subsistence techniques and hunting implements including a raised harpoon and sealskin float at the ready when out hunting bowhead. Further, the inclusion of Westerners on half the objects suggests a familiarity with trading and interacting with whalers, traders and ethnographers. The fact that Turner and Nelson acquired multiple objects by this carver at different locations suggests they possibly recognized the carver and appreciated his work. Likewise, continued contact with Westerners suggests the carver knew there was a ready market for his work. Similar to other drill bows, several carvings by the Golovin artist reveal multiple artists' hands suggesting later exchange or a finishing off by the Golovin carver before being sold to collectors.

²⁹³ As explained by Asatchaq (Lowenstein 1993:25-27) of Point Hope in a story called "The Land Grows and Dies," Inupiaq peoples believe that proper behavior and respect towards animals insure the recycling of their souls and a return to the earth as game animals once again.

A Drill Bow Artist Engraves Ivory Pipes

The ivory carver from Golovin represents one of the first engravers to begin marketing his work by using both a standard repertoire of motifs and etching imagery on non-functional items such as flat scraps of ivory and bone. The Golovin carver portends a growing movement by drill bow engravers who transferred their pictorial imagery to the sides of ivory pipes thereby creating one of the most popular ivory curios of the late nineteenth century (Fig. 308). Among the engravers of ivory pipes, two related carvers stand out who applied a specific canon of pictorial motifs to a group of eleven ivory pipes (Appendix H). The eleven pipes appear to be engraved by Siberian Yupik carvers who worked in the St. Michael vicinity and helped propitiate the souvenir trade. One of the carver's ivory pipes with pictorial engraving and distinct pattern of nucleated circles between diagonal bands appears in the center of a group of pipes acquired by Captain Michael Healy during the Arctic Cruise of the Revenue Steamer *Bear* in 1886 (Fig. 309).



Fig. 308. An Alaska Native couple smoking wood pipes next to bentwood boxes. A carved ivory pipe probably intended for sale rests on top of the left box. The building in the background appears to be the ACC post indicating the couple is at St. Michael. Photograph by Arthur Churchill Warner, c. 1899. University of Washington Libraries, Special Collections, PH Coll 273.

Fig. 309. Ivory, wood and clay pipes collected by Captain Michael A. Healy. Photograph taken in 1886 during the Arctic Cruise of the U.S. Revenue Steamer *Bear*. The Bancroft Library, University of California, Berkeley, BANC PIC 1905.12521-PIC.

Pipe tobacco initially traveled across the Bering Strait from Siberian Yupik traders who brought highly prized Russian tobacco (Gunther 1976:142).²⁹⁴ Early European explorers soon recognized tobacco as a sought-after commodity and brought large quantities of the dried leaves with them as they sailed through the Bering and Chukchi Seas (Kotzebue 1967:210; Maguire 1988:28; Peard 1973:145). The prevalence of tobacco can be seen on fifteen drill bows in the study group with figures smoking pipes (see Appendix F). Both men and women from the Bering Sea Islands and along the Alaskan coastline smoked pipes with a stem usually constructed from one or two pieces of wood and a stone or metal bowl (Nelson 1983:280-84). Pipes carried internal cachet as described by C. L. Hooper who states that soon after marriage an Inuit man presented his wife with a pipe and notes young brides visiting the Revenue Cutter *Corwin* were easily identified as they carried elegant, newly made pipes and tobacco-bags (Hooper 1884:109).

Tobacco held an overwhelming allure as described by Bogoras (1904:201) who notes that among the Chukchi, “After a long period of abstinence, a passionate smoker, on consuming his first pipe in this hasty manner, often becomes so giddy that he falls unconscious.” A drill bow acquired by Beechey illustrates a similar experience of euphoria as a figure smoking a pipe falls backward and appears to visualize a row of caribou dancers moving towards an ominous snare or trap (Fig. 310). Likewise, Kenny

²⁹⁴ Pipe smokers often extended the use-value of tobacco by mixing in extraneous material such as small pieces of dry poplar, aspen bark or young willow (Bogoras 1904:201; Hooper 1853:176).

Tikik (March 2012) recalls stories about the power of smoking when elders gathered grass from up on the mountains which had an even more potent effect than tobacco.²⁹⁵ In addition to the physical aspects of tobacco, pipe smoking also represented a social activity as seen on a drill bow with three figures smoking pipes together outside on the tundra (Fig. 311).



Fig. 310. A figure smoking a pipe and experiencing a visual hallucination engraved on ivory drill bow PR 1886.1.693.

Fig. 311. Three figures smoking pipes together engraved on ivory drill bow BM Am1949.22.22.

The introduction of ivory pipes created for sale seems to have originated in Chukchi or Siberian Yupik coastal villages in southern Chukotka. The earliest known reference to marketing ivory pipes comes from William Hulme Hooper who visited the Chukchi village of Wootair in March 1849 and describes artisans who made both ivory pipes and wooden pipes with metal inlay:

He made ducks, geese, seals, canoes, and many other curious toys and models, and was also very fond of carving figures; a pipe of ivory, which he made for me in about six hours, had on the bowl a face in front and on either side, the back was filled up with a figure less than an inch high seated upon a block, having one leg crossed upon the knee of the other. This was a very handsome and well-finished piece of sculpture. Another man here was in great request as a maker and ornamenter of wooden pipes, particularly for inlaying them with lead or solder, which after our arrival was practised to a much greater extent than previously. (Hooper 1853:184)²⁹⁶

²⁹⁵ Tikik (April 2012) states that elders did not pass on knowledge of this grass, as they believed the younger generation would be too greedy and not use it in moderation.

²⁹⁶ Hooper (1853:176) remarks that the Chukchi constructed their pipes of ivory and wood from two pieces divided horizontally down the center or as one piece with a small opening on the bottom in which the owner inserted dry grass to absorb moisture and stopped the hole with a piece of hide.

The practice of casting metal pipes appears to have spread to both sides of the Bering Strait before the proliferation of ivory pipes. Four years after Hooper's account, Rochfort Maguire recounts Atkana and his daughter from Cape Smythe coming aboard the HMS *Plover* and requesting lead to cast a pipe (Maguire 1988:312). Likewise, William Oquilluk (1973:215) notes Naukan and Uelen people from East Cape used to travel to Kauwerak in the summer with the intent to forcibly secure women, furs and metal to cast their pipe bowls, the latter considered the mark of a wealthy man. When Waldemar Bogoras visited Indian Point, Chukotka in 1901 he found the practice of inlaying metal pipes still in full swing as seen on a pipe he acquired with inlaid pewter bands (Bogoras 1904:202) (Fig. 312).²⁹⁷ Craftsmen followed a similar practice of making metal pipes on nearby St. Lawrence Island as seen in a photograph taken by Otto Geist of a man making two lead pipes with inlaid copper designs using clamps to secure the bowls to the stems (Fig. 313).²⁹⁸

Metal pipes with inlaid designs link directly to a carver who engraved five ivory pipes (EL228, EL229, 19/434, IV-E-190, 94-57-10/R138,) including one pipe (EL228) with a pewter bowl inlaid with geometric designs (Fig. 314a). The pewter bowl on pipe EL228 features copper-colored metal inlay with rectangular bars radiating from the center as well as dots and a triangular or barbed edge around the perimeter (Fig. 314b).

²⁹⁷ Bogoras (1904:2020) explains that to create single-piece pipes inlaid with pewter, "The bowl and the mouth-piece are of pewter, and are cast in wooden mantles. The wooden part of the pipe, with its surface grooved for inlaying, is interposed between the end moulds, which are connected by a paper tube. The metal parts are thus all cast at the same time, the pewter being poured into the bowl-end of the 'mould. The pipe is afterwards finished with a knife and a file."

²⁹⁸ The man making pipes in the photograph wears a distinct form of visor related to earlier bentwood hunting visors often worn by Siberian Yupik men from St. Lawrence Island and East Cape, Chukotka, see Figure 72. Chapter 7. NAA records inaccurately describe this photo as a man holding two pieces of a game.

The pierced design appears analogous with decorative elements used in skin appliqué on Siberian Yupik clothing (Fig. 315). Nelson (1983:284) reports Lieutenant George Morse Stoney acquired pipes EL228 and EL229 while in Kotzebue Sound.²⁹⁹ In 1883, Stoney traveled aboard the *Corwin* stopping at St. Lawrence Bay, Siberia before traveling on to Hotham Inlet where he returned several times through 1886 to explore the Kobuk River and surrounding region (Baker 1906:66-68). Stoney's pipes connect with three additional pipes including 19/434 collected by George T. Emmons in 1869, which possibly represents the earliest pipe of the group. Francois Mercier collected pipe IV-E-190 between 1868-85 and Frederick Rindge acquired 94-57-10/R138 at some point before 1894.

The three pipes acquired by Emmons, Mercier and Rindge include carved ivory bowls of almost identical form to the metal bowl on EL228 with a square base, tall cylindrical body, and a stepped and flared rim. The five pipes consist of a single piece of ivory with a central hole drilled from a rounded knob at the mouth to a diamond-shaped base. The pipe hole appears to have been made with the use of a hand-crank drill, probably incorporated into ivory carvers' toolkits by the late 1870s. Sylvester Ayek (April 2012:4) recalls ivory carvers on King Island using a hand-crank drill to make holes for pipes explaining, "when they make a pipe or cigarette holder, they drill from both ends, and that's hard to do, for a very small hole like that, to hit the other side."

²⁹⁹ Nelson provides the most, albeit limited, information for pipes EL228 and EL229 as museum records indicate the two pipes were never fully accessioned into the NMNH.

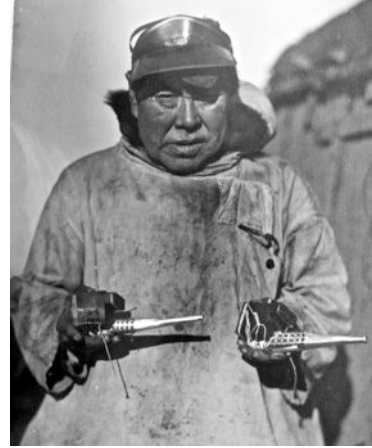


Fig. 312. Metal pipe with inlaid bands of dashed lines related to OBS graphic tradition. Collected by Waldemar Bogoras at Indian Point, Siberia in 1901. L 26.3, W 7.2, H 4 cm. AMNH 60/3724. Photograph courtesy of the American Museum of Natural History.

Fig. 313. Making inlaid metal pipes on St. Lawrence Island. Photograph by Otto W. Geist, 1935. National Anthropological Archives, Smithsonian Institution, NAA INV 01472000.

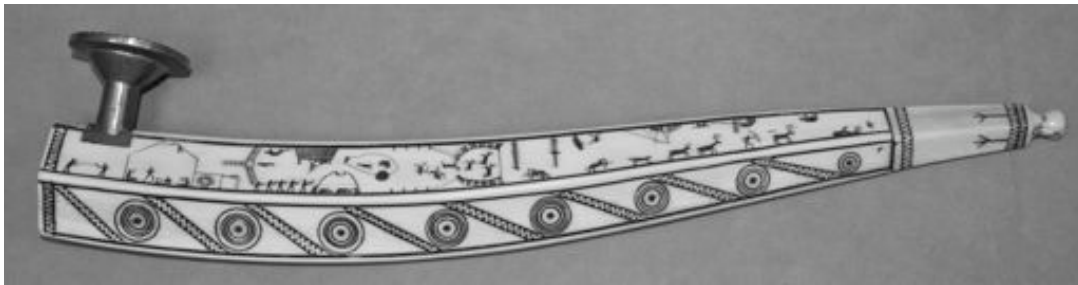


Fig. 314a. Pictorial engraved ivory pipe with inlaid metal bowl. NMNH EL228.

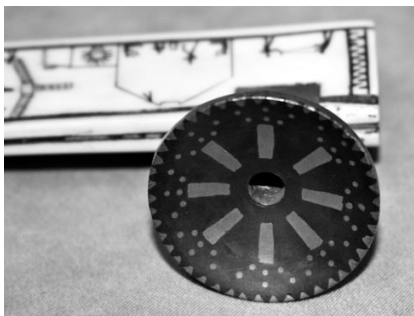


Fig. 314b. Detail of inlaid bowl on ivory pipe EL228.

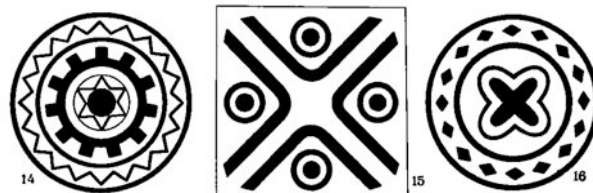


ТАБЛИЦА 21

Fig. 315. "Table 21. Designs. Asiatic Eskimo, Skin Appliqué." (from Lenin and Potapova 1961:399).

Each side of the five pipes divides into two horizontal panels delineated by upper and lower baselines. The lower panel features large radiating nucleated circles separated by diagonal bands of barbed lines.³⁰⁰ The five pipes also include barbed bands around the mouth area and pronged lines alternately described as raven totem marks (Nelson 1983:284) and ptarmigan tracks (Schaeffer April 2012). Barbed bands on the pipes appear analogous with the use of barbed bands to frame motifs on engraved drill bows from Indian Point (i.e. E24554, E33816). Likewise, graphic elements such as the barbed bands, nucleated circles and pronged lines relate the pipes to ancient ivory carving designs from the OBS and Punuk cultures.

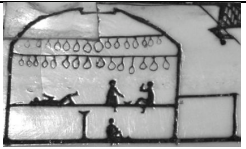
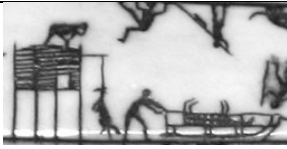






Upper panels on the five pipes feature engraved pictorial scenes consisting of thinly incised motifs spaced widely apart and oriented to both baselines creating an appearance of upside down imagery. The delicate motifs with straight outlines and dark centers closely relate to the engraving styles of drill bows from East Cape and Cape Nome. Pictorial motifs on the pipes appear to reference activities from both coastal and inland communities such as: activity within a qagri, cooking in a round dwelling, seining for fish and using a fish trap, corralling caribou, snaring rabbits or marmot, chopping wood with an axe, pulling a kayaq, picking berries, pulling a sled, hunting a standing bear, hunting bowhead whale and walrus, a beaver making a dam, ermines in tall trees, and a fort-like structure with an attacker wielding a spear (Table 26).

Four of the five pipes include a qagri engraved under the pipe bowl with etched figures dancing, drumming and resting. The qagri includes thinly incised walls similar to those on drill bow BM 1886.1.694 engraved in the East Cape style and collected by

³⁰⁰ One side of pipe 19/434 includes pictorial imagery on both the upper and lower panels.

Beechey (see Appendix F). The particular manner of creating a dwelling with thin outlines and an x-ray view of the interior can be seen on the sealskin painting collected by William Hulme Hooper at Indian Point in 1849 (Fig. 316). The sealskin's painted sod house shares distinct similarities with the sod house engraved on pipe 94-57-10/R138 including thin outlines, figures inside the house and at the end of a rectangular passageway, and additional figures looking down through the roof entrance (Fig. 317).

Table 26. Pictorial elements of the ivory pipe engraver.

 94-57-10/R138	 EL229	 IV-E-190	 EL228
 EL229	 94-57-10/R138	 EL228	 IV-E-190

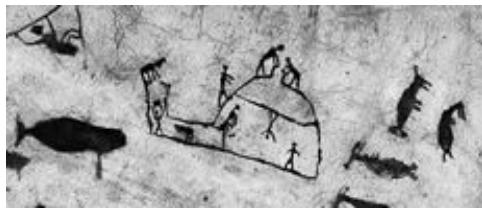


Fig. 316. Detail of house with figures painted on sealskin. PR 1966.19.1.



Fig. 317. Detail of house with figures engraved on ivory pipe PMAE 94-57-10/R138.

By the late 1880s, the practice of engraving ivory pipes was in full swing from Point Barrow to Norton Sound. In addition to St. Michael, ivory carvers from King Island, Norton Sound and Seward Peninsula gathered at Port Clarence every summer to trade fish and furs and sell carved curios to crews from the whaling ships (VanStone 1976) (Fig. 318). In 1887 Herbert Aldrich sailed with a whaling crew, disembarking at Port Clarence, where he described young men making “fancy carved pipes” engraved

with varied degree of skill (Aldrich 1889:75). Nearby at Cape Prince of Wales, Harrison Thornton (1931:216) describes villagers in the early 1890s using the “Russian variety” of wood pipes with metal bowls in addition to ivory pipes “curiously carved by way of ornamentation.”³⁰¹ Finally, John Kelly (1890:17) describes an overlapping practice of engraving on both ivory drill bows and pipes in the late 1880s stating, “Some of them carve with a knife on pipe-stems, or drill bows made of mastadon or walrus ivory, pictures illustrating events in the life of the artist, tribal history, or festal occasions.”³⁰²



Fig. 318. Illustration of Bering Strait Natives holding objects to trade (from left to right): a pair of walrus tusks, a pair of mukluks, an engraved ivory pipe, a plate of baleen, and a spotted sealskin. Alaska Native artist. c. 1890. Ink and pencil on paper. H 6.04, W 20 cm. Courtesy of the New Bedford Whaling Museum, 1914.35.4.

A Drill Bow Engraver with the Alaska Commercial Company

While involved in collections research, I came across four drill bows with a number of similar motifs suggesting the work of a single artist (drill bows: 49587, 49589, 62376, 62378). Further research revealed a total of twenty-eights objects with analogous engravings in seven museum collections with the majority at the Smithsonian National

³⁰¹ Thornton (1931:216) states Wales villagers procured tobacco from American whalers in addition to traveling to East Cape, Siberia to trade for large quantities of Russian tobacco.

³⁰² Kelly (1890:47) recorded a Bering Strait name for “fancy pipe,” probably referring to an engraved ivory pipe, as “Koo in’yok” which sounds similar to the description of old pipes given by James Omiak (April 2012) who referred to the pipes as *quiniq*.

Museum of the American Indian and Field Museum (Appendix I). Through archival research and analysis of the engraving style I suggest this carver worked for the Alaska Commercial Company and might be Vladimir Naomoff, an Alutiiq artist, best known for the illustrations he provided for Walter Hoffman's 1897 report *Graphic Art of the Eskimos*.

Vladimir Naomoff makes a notorious first appearance in 1882 among the pages of *The San Francisco Chronicle*, which relates murder charges brought against Naomoff for stabbing one Laverenti Shapasnikoff at Marsonia in the Aleutian Islands.³⁰³ The article describes Naomoff as a Russian-Aleut who arrived in San Francisco for his incarceration on August 13, 1882 aboard the ACC's steamer St. Paul. Later that summer, Walter Hoffman made Naomoff's acquaintance in San Francisco where he enlisted the artist to produce illustrations for his book.³⁰⁴ Hoffman describes Naomoff as one intimately aware of North Alaskan pictorial design stating, "His keen observation of the habits of the people of the mainland, and their various methods of conveying information by recording on different materials their thoughts, enabled him to interpret with ease the numerous records in the museum referred to; and he also prepared a number of sketches in imitation of records which he had observed" (Hoffman 1897:750).³⁰⁵ Naomoff apparently accompanied Hoffman to the ACC Museum in San Francisco to examine the collections

³⁰³ A Murderer from Alaska. *The San Francisco Chronicle*, Tuesday, August 15, 1882, p. 2

³⁰⁴ Hoffman (1897:947) describes meeting Naomoff in 1882, "under circumstances which enabled him to devote his exclusive attention to the subject of the transmission of thought without the use of oral speech." These "circumstances" might have been related to Naomoff's incarceration or a possible sentence to remain in California.

³⁰⁵ Naomoff also provided Hoffman with a series of "gesture signs" said to represent certain meanings and objects, which the latter stated he verified through the services of a "Malemiut" or Kotzebue Sound informant from St. Michael (Hoffman 1897:750). The communicative validity of these signs seems doubtful but they do represent a form of intercultural exchange linked to the idea of cultural capital.

from which he produced a number of sketches including one depicting four sides of a drill bow with Pastolik style engraving (Fig. 319).

It seems Naomoff must have shown some skill in pictorial engraving or illustrative design to first garner Hoffman's attention.³⁰⁶ Naomoff grew up exposed to the business of northern trading, accompanying his father who worked for the Russian Fur Company on visits to villages, before joining the Alaska Commercial Company as an adult.³⁰⁷ During his travels to northern outposts, Naomoff would have gained awareness of various carving styles and pictorial imagery. Likewise, ACC agents such as Charles Hall and Francois Mercier made large collections while based in Norton Sound and Naomoff probably experienced similar opportunities to collect objects. Indeed, many of the objects engraved by this particular carver appear to have originally been "blanks" that were subsequently filled in with copious amounts of engraving. For instance, the carver's motifs wrap around the contours of utilitarian objects such as bolas, sled runners and skin scrapers, which typically have little to no engraving. As an ACC agent, Naomoff would have had easy access to purchase plain ivory objects and with the time-consuming carving out of the way, he could have quickly engraved designs on the ready-mades for a quick turnover of profits.

³⁰⁶ Hoffman (1897:805) identifies Naomoff as an "Alaskan informant and pictographer" suggesting he produced pictorial designs for sale outside of the work for Hoffman.

³⁰⁷ *Ibid.*, 947.

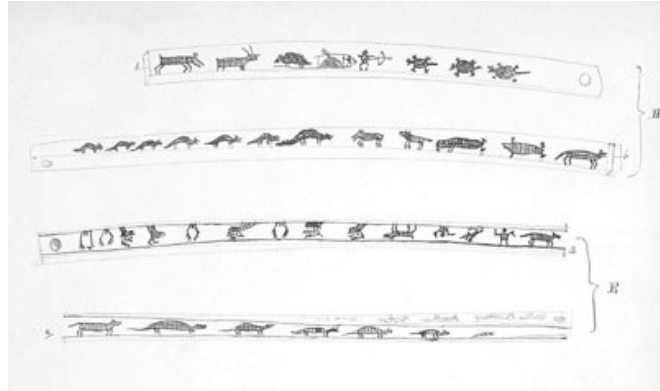


Fig. 319. "Copy of Pictographic Ivory Carvings." Illustration of an engraved ivory drill bow in the Alaska Commercial Company Museum, San Francisco, CA. Drawn by Vladimir Naomoff, August 31, 1882. National Anthropological Archives, Smithsonian Institution, Manuscript 2372, Box 11.

The artist of this distinct group of twenty-eight objects utilized black ink and graphite for his engraving fill and drew from a specific repertoire or dictionary of motifs including: bowhead whales, walrus, caribou, a pair of bears, dog sleds and seining for fish (Table 27). These motifs appear on a total of five drill bows ranging in form from flat, cylindrical and triangular, with lengths of 32.5-39.9 cm and widths of 1.3-2.5 cm. The end of drill bow 49587 features a carved animal head with barbed teeth suggesting an original provenience of Indian Point or St. Lawrence Island. Likewise, drill bow 62376 includes a row of nucleated circles with light brown soot suggesting the bow originated from Point Barrow or Point Hope before the secondary addition of pictorial motifs filled in with black ink (Fig. 320). Indeed, the carver's distinct motifs appear alongside other engraving styles on almost half the objects in this group with apparent attempts to fill in the surface area.

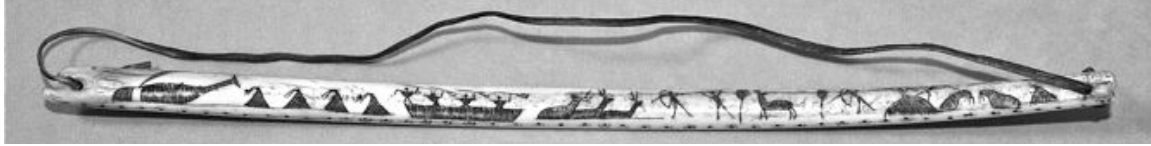


Figure 320. Ivory drill bow with pictorial imagery in the style of the ACC engraver. NMAI 62376.

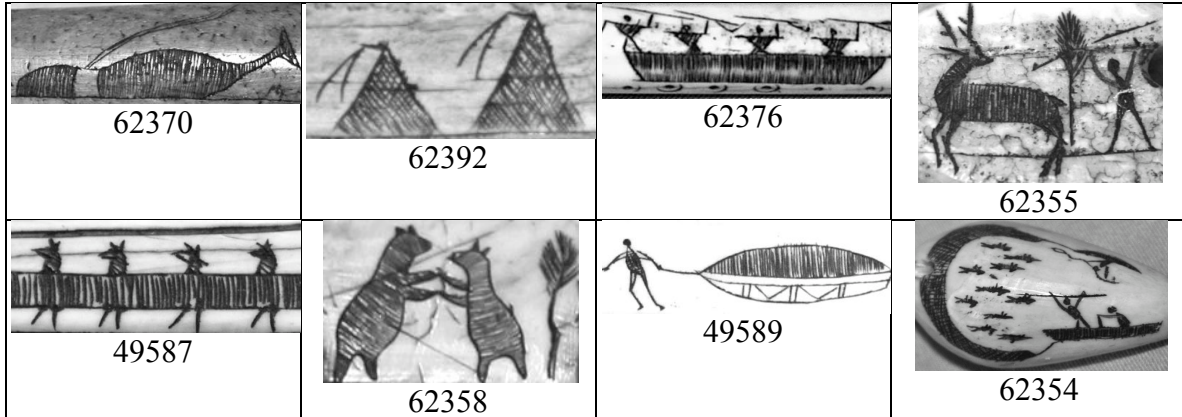
One of the carver's most distinguishable motifs consists of a bowhead whale engraved as a single subject with a long, almost cylindrical body filled in with dense vertical lines, a white vertical band behind the head, and a long tail raised off the baseline with an extended fluke. Spray consisting of vertical lines, rather than a feather-like motif, normally extends from the top of the whale's white band. The carver etched walrus in two variations with the primary style constructed of a conical-shaped body filled in with tight, diagonal hatching, and two long, slender tusks angled downwards. The secondary style of walrus has a cylindrical body with a slight curve at the head area, two long, slender tusks and a body filled in with tight, horizontal lines. Walrus may appear as a single subject or in rows being hunted by an umiaq. Umiat commonly feature an angled bow and stern with a straight top and bottom filled in with dense vertical lines. Four figures are typical with the harpooner standing in the bow with a raised harpoon ready to strike. Kayaks resemble shorter umiaq filled in with tight vertical lines and a single figure placed in the center. Figures have long arms and legs, circular pinpoint heads, and torsos comprised either of broad inverted triangles or teardrop shapes filled in with vertical or horizontal lines.

Caribou appear on this group of objects in three distinct variations. The most common motif consists of a bow hunter poised to shoot a single caribou behind or next to a tree with a bushy top. The bow hunter, caribou, tree combination appears on almost

every engraved object by this carver. The second caribou motif depicts a row of swimming caribou, often hunted with a harpoon or bow, and resembles the first style of caribou with long antlers and a body filled in with tight, vertical lines. The third style of caribou appears as a herd with a single long rectangular body, multiple heads and multiple bent legs seeming to dance. The dancing herd of caribou appears more rudimentary than the other two caribou styles but all three variations may appear on a single object (i.e. spoon 32.552).

The artist particularly liked engraving brown bears, which appear in three forms. The first and most characteristic motif includes a pair of standing bears facing each other with front paws extended. The second style of bear is a variation on the bow hunter, tree, and caribou motif except a single bear takes the place of the caribou. The third style depicts a bear on all fours with at least one paw lifted off the baseline. Bears in all three styles are typically darkened with closely spaced vertical or horizontal lines. Dog sleds also appear on many of the objects and usually consist of a curved mound on top of curved runners with vertical stanchions. Dogs have slender cylindrical bodies, small triangular ears, raised tails and short, stick legs. Finally, seining for fish appears to have been a favored motif and typically consists of a C-shaped net filled in with diagonal hatching encircling a school of small fish with the net being pulled by an umiaq and kayak with a hunter ready to spear the fish.

Table 27. Pictorial elements of the ACC engraver.



While this carver's motifs fit within the canon of old pictorial style engraving, the motifs do not relate to any established regional style. Baselines appear on only a few examples and motifs do not build into scenes but rather appear as isolated elements scattered across the object's surface. The artist frequently repeats the most ubiquitous northern animals found on drill bows such as bowhead, walrus and caribou. However, he also utilizes more southern flora and fauna such as tall trees and large brown bears not typically etched by Arctic carvers. Some objects even appear to depict west coast motifs including palm trees (i.e. 13449, 13498) and one ivory pipe (62449) illustrating a bow hunter wearing a fringed skirt and feather headdress related to the Chumash culture of southern California (Figs. 321-322). The artist's motifs also appear alongside northern carvers' etchings, such as on a harpoon rest (62367) engraved with Point Hope style umiat, suggesting the secondary artist wanted to fill-in or "enhance" the object's appeal to a collector. In all, the engraving style appears to be done by an artist familiar with northern etching but unfamiliar with the intricacies of the North Alaskan environment.



Fig. 321. A bow hunter wearing a fringed skirt and feather headdress engraved on ivory pipe NMAI 62449.



Fig. 322. Photograph of a Chumash man holding a bow and wearing a skirt of strings made from milkweed fiber and eagle down, with feathers attached to the lower ends. Photograph by Léon de Cessac, 1878 (from Grant 1965).

Museum records also point to a California provenience and the possibility that Vladimir Naomoff engraved this group of objects. The NMAI lists fifteen objects in the group as originating from the Fred Harvey collection before being presented by James Bishop Ford to the Heye Foundation in 1917. Well known for rapacious collecting in the Southwest, Fred Harvey probably acquired the engraved ivory and bone objects from a dealer along the west coast. Perhaps most convincingly, NMAI records identify this group of objects as “Aleut.” As carvers in the Aleutians rarely produced pictorial engraving in the nineteenth century, it is to be construed that collectors were accurately describing Vladimir Naomoff’s cultural background as “Aleut” despite his working within an Iñupiat genre of carving. Further, the Field Museum also points to a west coast provenience for eight engraved objects in this group acquired during a time when Naomoff would have been in San Francisco. E. E. Ayer collected eight of this carver’s

objects now at the Field Museum and five of these were purchased from Joseph Nathan while in San Francisco before being donated to the Field in 1897.³⁰⁸ Indeed, Nathan might have purchased the objects from surplus sold by the ACC before passing them on to Ayer. Altogether, the combination of style analysis, archival documents and historical circumstances support the hypothesis that Vladimir Naomoff put his hand to engraving this enigmatic group of twenty-eight objects. The ACC engraver represents a transitional form of ivory carver who exercised his connections to communities and collectors to promote a unique style of saleable art. The carver's work reveals a fascinating, entrepreneurial example of an indigenous artist marketing Alaska Native art at the turn of the twentieth century.

³⁰⁸ One pipe carved by Naomoff, cat. 13700, acquired by E. E. Ayer around 1896 was stolen along with two other pipes while on display in the temporary exhibition "19th Century Alaskan Eskimo Art" from the Field Museum on February 5, 1976. Two Chicago men were eventually apprehended in possession of the three pipes, which were returned with two in a damaged condition.

CHAPTER 9

ENGRAVED MOTIFS AND BERING STRAIT ORAL NARRATIVES

Bering Strait Languages

Pictorially engraved ivory drill bows derive mainly from Iñupiat and Siberian Yupik villages in the Bering Strait, a region stretching from Northwest Alaska to St. Lawrence Island and the eastern coast of the Chukchi Peninsula. Bering Strait villages and those further along the southwest coast of Alaska speak four interrelated Eskimo-Aleut languages, three Yupik and the other one Inuit. The three Yupik, or Western Eskimo, languages include Siberian Yupik spoken on St. Lawrence Island and the eastern Chukchi Peninsula, Central Alaskan Yup'ik from southwest Alaska and Nunivak Island, and Alutiiq or Sugpiaq, a form of Pacific Gulf Yup'ik, spoken on Kodiak Island and the upper Alaska Peninsula to Prince William Sound (Fienup-Riordan and Kaplan 2007). The Siberian Yupik population on St. Lawrence Island includes about 1,100 people in Gambell and Savoonga with about 1,050 who speak the language. About 900 Siberian Yupik individuals, including almost 300 fluent speakers, live along the eastern coastline of Chukotka (Krauss 2007:408).

The Inuit, or Eastern Eskimo, language includes a continuum of dialects ranging from northern villages in Alaska, to Canada and Greenland.³⁰⁹ Within Alaska, the Inuit language is called Iñupiaq meaning “the Real People” (Hensley 2009:235). Around 13,500 Iñupiat call Alaska home with the language spoken fluently by about 3,000 individuals, primarily over the age of 40 (Krauss 2007:408). Alaskan Iñupiaq includes

³⁰⁹ The Greenland Inuit population of 46,400 includes about 46,000 Inuit speakers of Kalaallisut. The Canadian Inuit population encompasses about 31,000 individuals with 24,000 who speak Inuit known as Inuktitut, Inuttut or Inuvialuktun (Ahgeak MacLean 1986:ix; UAF website).

two dialect groups: North Alaskan Iñupiaq divided into two dialects, North Slope and Malimiut, and Seward Peninsula Iñupiaq divided into the dialects of Qawiaraq and Bering Strait (Kaplan 2001:250). Each dialect further divides into subdialects connected to twenty-five villages extending northward from Unalakleet, to Nome, Kotzebue, and Barrow (Ahgeak MacLean 1986:ix).³¹⁰

During the early nineteenth century, each subdialect corresponded with an autonomous Iñupiat nation based on an economy of hunting and gathering resources within their controlled territory (Burch 2006:7-9). Further, nineteenth century Iñupiat nations engaged in complex movements of peoples and trade goods across the Bering and Chukchi seas resulting in variable terms for the bow drill tool complex. During this project, Iñupiaq speakers identified three terms for drill bow: *niuqtuun* (Barrow, Point Hope, Kotzebue), *pitiksiiq* (King Island), and *satquaq* (Little Diomed). In contrast, *kigmiaq* currently refers to a mouthpiece for both King Island and Little Diomed while *niuun* signifies a drill for King Island speakers and *niuqtuun* refers to a drill for those from Little Diomed.

Between 1826-27, crewmembers on the HMS *Blossom* compiled one of the earliest Iñupiaq vocabularies incorporating bow drill terms such as: *too-koo-ra* (drill bow), *keng-me-āk* or *omee-yāk* (drill-socket), and *pee-tak-toon* (to drill) (Beechey vol 2 1831:367).

While in Point Barrow between 1881-83, John Murdoch and Patrick H. Ray also recorded terms for bow drill implements including: *ni-ǎ'k-tun* (bow-drill of bone), *pi-zik-*

³¹⁰ The Bering Strait dialect includes the villages of Shishmaref, Wales, Brevig Mission, Teller, King Island, and Little Diomed. The Qawiaraq dialect encompasses Teller, Nome, Mary's Igloo, Council, Golovin, White Mountain, Elim, Shaktoolik, and Unalakleet. Malimiut speakers derive from Unalakleet, Shaktoolik, Koyuk, Deering, Buckland, Noatak, Kotzebue, Kiana, Noorvik, Selawik, Shugnak, Ambler and Kobuk. North Slope Iñupiaq villages include Kivalina, Point Hope, Point Lay, Wainwright, Atqasuk, Barrow, Nuiqsut, Barter Island and Anaktuvuk Pass. Villages listed twice represent a blend of people speaking at least two dialects (Ahgeak MacLean 1986:x).

su-á (drill-bow), and *kǐ'ñ-mi-ä* (drill mouth-piece) (Murdoch 1988:cx). Shortly thereafter, John W. Kelly spent the summer of 1889 aboard the U.S.S. *Thetis* and recorded two vocabularies comprising Iñupiaq from the northwest coast of Alaska and Siberian Yupik as spoken at Indian Point, Plover Bay and East Cape. Kelly's Iñupiaq dictionary contains: *ne'uk toon* (drill), *pe shik'se rok* (drill-handle), and *nok'sru* (drill mouthpiece) (Kelly 1890:33).³¹¹ These few examples suggest a nineteenth century fluidity to bow drill terminology with the interexchange of terms for drill bow, drill and the implied action. Likewise, it indicates a gradual falling off of the term *pitiksiaq* for drill bow except at King Island and a generalization of the term *niuqtuun* to reference the entire bow drill tool complex.

Storytelling

Within Bering Strait communities, oral stories remain essential tools to pass on family histories, cultural values and subsistence techniques. The importance of knowledge embedded within oral traditions is noted by Herbert Anungazuk (2003:77-78) who explains, "Oral history is a time-honored way to teach, and it is based on the learning and experiences of the ancestors. Elders do not teach when the sun comes to a certain location; they do not stop when a specific season arrives. Oral history is indeed continuous." Likewise, contemporary ivory carvers draw on oral narratives for visual expression as noted Henry Koonook (April 2010:2) who shares, "As an artist and carver,

³¹¹ Kelly's list of Siberian Yupik terms does not include entries related to bow drill use. The discontinued use of drill bows among Siberian Yupik speakers of eastern Chukotka appears related to the gradual advancement of southern Chukchi and a transformation of cultural lifeways. By the turn of the twentieth century, Bogoras (1904:211) states that Maritime Chukchi no longer use drill bows while Reindeer Chukchi and Koryak continue to use a wooden bow drill set in conjunction with a human figure-shaped hearth.

all my carvings come from hunting experiences, whaling experiences, stories told by my relatives and sometimes from dreams.”

Different forms of stories, legends, myths, family histories and personal accounts correspond to the types of engravings that appear on drill bows. For example, Anderson (2005:42) describes a “folktale hero” as a strong or courageous person who overcomes obstacles and adversaries while lending assistance to those in need. Accounts of heroes would be featured in *unipkaa*, or legends from the distant past of people and events not remembered by the people alive today. Another form of story, known as *quliaqtuaq* or *uqaluktuaq*, tells of historical event, personal encounters, or family experiences (Fiendup-Riordan 2007:131). An integration of oral tradition into material culture analysis offers new insights into the multiplicity of narratives behind engraved ivory drill bows, their roles within Arctic societies, and the ability for stories to reengage communities with objects of cultural patrimony.

Drill Bow Engravings and Oral Narratives

Drill bow engravings carry valuable information on cultural practices and beliefs that function as important mnemonic devices or visual aids to oral histories. For example, many drill bows appear to illustrate a chronological series of events such as hunters harpooning a bowhead whale, cutting the whale up on the beach and villagers welcoming and assisting the successful hunters. Contemporary analysis of the direction in which a drill bow is meant to be “read” can prove problematic as carvers added motifs over time and secondary carvers engraved their own scenes. However, like an author writing in the margins, carvers who engraved the scenes could probably follow the flow of imagery with ease which might have involved turning around, flipping over and coming back to a

certain image.

Embedded within a personal tool, drill bow narratives stayed in the hand of the author to be interpreted and shared per his discretion. A young boy listening to stories on a drill bow would have learned the means to follow the images to tell a story. If the drill bow was eventually handed down to the young listener, he could recall those stories and eventually engrave his own which merged with the original narrative. Edwin Weyiouanna (June 2012:3) explains, “On some of these carvings, you can tell, they tell their story on how they were, how they lived. That’s how come they got these etchings. That’s how come they recorded, put them on ivory. They didn’t have no paper, no books, a long time ago. They didn’t no how to read. But they knew how to do all the artwork.”

Visual System of Representation

Nineteenth century ivory carvers shared a catalog of visual imagery related to seasonal subsistence activities and socio-cultural activities including: skin boats (*umiat*) pursuing bowhead whales and walrus, hunters tracking caribou and bearded seal, village activities such as hanging up salmon and picking berries, warfare, festivals, athletic events, mythological creatures and interactions with whaling ships (Appendix J). These engravings carry valuable information on subsistence practices and cultural activities surrounding Bering Strait lifeways. In describing the motifs and their connection to oral knowledge, Sylvester Ayek (April 2012:4) shared, “Because our culture is oral culture too, this is how they told their views about village life. And what it takes to be a hunter and gatherer. And they did very well.”

Relational Tags and Museum Practice

During the course of this project, carvers and community members looked through a binder of photographs and offered their thoughts on engraved motifs and personal stories related to the imagery. Participants shared additional stories while working on carving projects and visiting at home. Conversations took place in English interspersed with Iñupiaq names for hunting gear, tools and animals. Themes discussed in community discussions were paired with drill bow imagery to create thirteen thematic terms or “tags.” As noted by Aaron Glass (2010:24) “tags” derive from the “interactive Web 2.0 origin of the practice of user-generated descriptive terms that allow multiple and diverse methods of making and searching the content of a Web page.” In a similar manner, loosely organizing drill bow motifs by tags encourages exploration of descriptive and interpretative relationships.

Each of the following relational tags includes a few examples of participant narratives arranged according to thematic concept. Brief notes on social activities and reference to published oral stories offers a contextual framework for the motifs. The following tags are not meant to be a comprehensive discourse on Iñupiat cultural behavior and ontology; rather the tags represent a specific approach to using objects as mediators of oral expression.

Spring Hunting

For many communities in Northwest Alaska, the arrival of spring carries increasing excitement and bustling activity with hunters on the ice crabbing and shooting seals, eventually embarking in umiat or modern boats to follow leads through the icy waters in pursuit of bowhead whales and walrus. Large marine mammals caught during the spring will help sustain families and communities throughout the coming year.

Approximately two-thirds of the engraved drill bows in the study group show imagery linked to spring hunting denoting the import of this season's subsistence activities. Spring hunting imagery on drill bows includes: hunting and cutting up whales, hunting walrus, hunting and dragging seals, and hunting early arrivals of migrating ducks and geese.

Whaling crews hunting bowhead appear on 130 engraved drill bows and indicate a substantial number of drill bow engravers derived from coastal villages that participated in large-scale bowhead whaling. As seen on drill bow NMAI 54337 an engraved whaling scene typically features an umiaq with four to six crew members using a harpoon with sealskin floats to pursue a single large bowhead whale, often with flocks of migrating birds above signifying springtime (Fig. 323).

Hunting bowhead whales continues to be an important activity in north Alaska and one a young man aspires to participate in as noted by baleen etcher Eben Hopson (May 2012:2) in Barrow, "Either a family crew goes out whaling or two people and their friends go out whaling. Last year, my uncle's crew, they caught a super big whale. Their flipper was like six'four," it was taller than all of them. I'm either going to go out whaling when I'm thirteen, or fourteen." Point Hope currently has about 17 whaling crews and Henry Koonook (April 2010:10) shares a story revealing the specialized knowledge and skills needed to hunt bowhead whales and thankful spirit to have whales return the following year:

One of my uncles, Seymour Isrooluk, harpooned the whale, that year . . . And everybody's on the edge of the ice waiting for it to come up again. We're following behind. We're thinking the whale's going to come up again. And we paddle a long ways westward and we stop at the very end somewhere down that way. And all the boats are lined up close to each other, hanging on the ice, ready to take off if the whale comes up. And the whale never comes up for a long time so some of the crews start going back to their camps. Because we know there's

more whales coming. And it winds down to two boats left, our crew and my uncle Seymour's crew, the one that harpooned the whale. And he sits for another, an hour...and then decided well, maybe the whale died or went under the ice and died and I'm going to go back and wait for some more whale. So they go back to the camp and before they left my dad said, we'll hang out for another half an hour or so . . . All of a sudden, out in the distance, the whale comes up, but it comes up sideways, with the belly facing out. And that's all it could do, was swim in a circle. And the *talibuq*, the flipper, was hitting the water every now and then. So we're watching it swim in a circle and then my dad says, we're going to watch it for about ten or fifteen minutes. So we do that and before anything happens he says, we have to kill that whale because he's suffering. And what we're going to do, is we're going to follow this whale in the circle, three rounds, and on the fourth round, I'm going to motion like this . . . So as soon as we see the flipper coming up, we approach the whale . . . and we go to the whale and by the time we reach the whale, the flipper is all the way up, so he has a chance at the heart. And so he harpoons it right there. And he hit the heart so the whale went belly up and we knew it was dead. It was kind of windy that day and not five minutes after the whale died, everything got dead calm. It's something, I don't know if it was supernatural or anything like that, but it's something that happens when different people harpoon a whale. But anyway the whale dies and my dad says a prayer.

Successfully harpooning a whale is a cause for celebration and seven drill bows illustrate figures dancing in umiat with tilted bodies, raised arms and raised paddles. Jerome Saclamana (April 2012) studied the whaling scene on drill bow NMAI 246479 and noted the figures with raised paddles must be really happy they got a whale (Fig. 324). Once a crew kills a bowhead whale, several boats normally arrive to assist the successful hunters, tie ropes to the whale, and pull the animal to shore. Enoch Evak (March 2012) closely examined drill bow NMNH E176172 and described the running figures as going to help pull in a bowhead whale also observing images of harpooned whales are still alive if they are depicted spouting water (Fig. 325).

Pulling a bowhead whale up on the beach requires a community effort, rewarded through distribution of the meat and muktuk. While in Point Hope, Steve Oomittuk (April 2010:9) drew an illustration of how a hunting crew divides the whale into different shares

explaining, “We have eight shares of a whale... This is how a whale has been marked and cut up for hundreds of years. So everybody gets a share.” Drill bow NMNH E48115 illustrates the strenuous activity after landing a bowhead whale with figures on the left pulling the whale onto the beach with a rope, figures on top of the whale cutting the meat and muktuk into shares, and figures on the right passing squares of meat to waiting hands (Fig. 326).

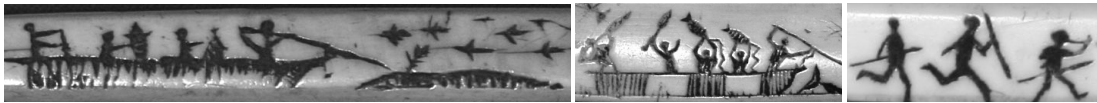


Fig. 323. An umiak with four figures preparing to harpoon a bowhead whale. Note the two sealskin floats attached to the harpoon and migrating birds. Drill bow NMAI 54337.

Fig. 324. Figures dancing and raising their paddles after harpooning a bowhead whale. Drill bow NMAI 246479.

Fig. 325. Figures running to help land a bowhead whale on drill bow NMNH E176172.



Fig. 326. Figures pulling a bowhead whale up on the beach, cutting up the whale, and passing square sections of meat and muktuk. Drill bow NMNH E48115.

Scenes of hunting walrus appear on 107 drill bows and represent the second most prominent activity after hunting whales. Imagery reflects the carvers’ knowledge about a wide range of hunting techniques including hunting walrus with umiat and kayaks as well as pursuing walrus on the ice, in the water, and on the beach.³¹² Drill bow PHMA 2-4121 illustrates an umiak and kayak working together to surround and harpoon a large walrus swimming in the water (Fig. 327). George Olanna Sr. (June 2012:1) of Shishmaref

³¹² See Chapter 3 for a detailed discussion about the illustration of walrus hunting techniques on engraved drill bows.

described different guns used to shoot walrus recalling one time using a .300 Winchester Magnum to kill a large “rogue walrus” with seals in its stomach and observed, “we have a lot of stories to tell from living on the land like we do.”

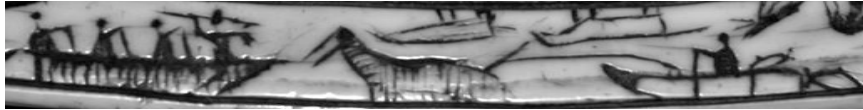


Fig. 327. A Bering Strait umiaq and kayak working together to hunt walrus.
Drill bow PHMA 2-4121.

Seal hunting scenes appear on 63 drill bows and depict kayak hunters pursuing swimming seals, crawling towards seals on the ice, waiting with raised harpoon at breathing holes, or pulling in snared and netted seals. Drill bow AMNH E/632 includes a hunter standing next to his hunting bag with a raised harpoon aimed at seals ready to escape through a hole in the ice (Fig. 328). Taking hunting bags out on the ice brought back memories for several community members including Kara Tocktoo (June 2012) who recalled her mother making hunting bags out of young spotted seal, skinning the hide by making a long slit from the mouth to the flippers. Successfully hunting seals on the ice often required an arduous trek back to the village. Baker Ningealook (June 2012) studied the row of hunters pulling seals on drill bow NMNH E48522 and explained when dragging bearded seals by the heads you put the rope under their eye sockets in the fleshy cheek area, pull the rope around the jaw, and make a knot by which to drag the seals (Fig. 329). Helping drag seals was also a responsibility for young aspiring hunters. Sylvester Ayek (April 2012:7) recalls helping as a youth to bring seals up to the qagri for butchering on King Island:

We helped them drag to the village. Especially when they bring home whole bearded seal, which are real big seals. Many boys would get together and just pull

them up to the respective clubhouse . . . they butcher bearded seals in the clubhouse. Not on the ice. Once in a while they'll do that. When it warms up, such as now, they butcher them out there. When it's twenty below zero, they bring them home and take them in the clubhouse to butcher.



Fig. 328. A seal hunter on the ice with raised harpoon.
Drill bow AMNH E/632.



Fig. 329. Hunters pulling large bearded seals.
Drill bow NMNH E48522.

Summer Camp

Following the northern migration of bowhead whales accompanied by adult female walrus with calves into the Arctic Ocean, coastal communities prepared for a season of travelling and gathering summer resources. Eleven drill bows illustrate scenes of villagers travelling in umiat with raised sails possibly heading to summer fishing camps or trade fairs (Fig. 330). Vince Pikonganna (April 2012:9) recalls King Islanders frequently travelling to other villages to trade and visit during the summertime:

They did a lot of trading way back when, traveling. Traveling to another village, everybody got their thing, what they want to trade for. Either go to Kotzebue or Teller or St. Michael. Everyone of them have a direction name . . . My dad, he used to travel, in the 20s and 30s, for trading and so on . . . And to watch Eskimo dancing, eat, just be with your friends again, that you gain over the years.

Frederick W. Beechey offers a detailed description of the varied supplies packed into umiat during summer travel in 1826:

From two of these [umiat] they landed fourteen persons, eight tent poles, forty deer skins, two kyacks, many hundred weight of fish, numerous skins of oil, earthen jars for cooking, two living foxes, ten large dogs, bundles of lances, harpoons, bows and arrows, a quantity of whalebone, skins full of clothing, some immense nets, made of hide, for taking small whales and porpoises, eight broad planks, masts, sails, paddles, &c., besides sea-horse [walrus] hides and teeth, and

a variety of nameless articles always to be found among the Esquimaux.
(Beechey 1968:405)³¹³



Fig. 330. Umiat with sails and villagers during summer travel. Drill bow PR 1886.1.694.

Summer camp scenes on drill bows often feature conical and round tents, fishnets, racks, campfires, and cooking pots (Fig. 331). Hide tents represent a prominent motif, appearing on 115 engraved drill bows, while 8 drill bows include canvas or paneled-tents such drill bow AMNH 0/62 with both hide and canvas tents reflecting gradual integration of this structure (Fig. 332). Ross Schaeffer (April 2012:4) recalls his aunts living in a camp for many years and describes a transitional process from hide to canvas tents, “A lot of the Eskimos have conical lodges in the spring, made of fur . . . in the old days . . . *tuttu* [caribou] hides, with the fur inside. They were all gone by the time I came over here, they were using [canvas] tents by that time.”



Fig. 331. Summer camp scene with hide tents on drill bow NMNH E38886.



Fig. 332. Summer camp scene with hide and canvas tents on drill bow AMNH 0/62.

Drill bows engraved with summer campsites depict a range of nearby activities such as seining for fish, hunting ducks and geese, hunting caribou and picking greens and berries. Three drill bows illustrate figures seining for fish, possibly salmon or herring, using a net dragged by an umiaq (Fig. 333).³¹⁴ Jack Frankson Jr. (March 2012:3) enjoys

³¹³ Beechey encountered the traveling party on the north side of Escholtz Bay on September 6, 1826 (Beechey 1968:405).

camping and fishing with his uncle on Kobuk Lake noting, “lots of people go fishing around here . . . There’s a whole bunch of different types of fish that come around at different times of the year. Like they go out for trout season, sheefish season, smelt season. If there’s caribou walking back there, we’ll go hunt caribou or ptarmigan.”

Hunting ducks and geese provide a supplemental meat source during the late spring and summer and 58 drill bows illustrate kayaks pursuing waterfowl in the water or figures on land preparing to club molting geese (Fig. 334). Gary Sockpick (June 2012:6) shares that when hunting white-fronted geese the, “Best time to get them is when they’re molting their feathers . . . They get real fat and we gather them and we just hit them with sticks.”

Finally, two drill bows illustrate picking berries including BM Am1855.1220.229 with a figure on the left using a traditional berry scoop and a second figure stooped over putting berries in a bucket (Fig. 335). In St. Michael, Flora Matthias (April 2012:13) hopes to make a sealskin poke so her family can eat fresh salmonberries in the winter explaining, “when you take them out from the seal poke, the berries are like when you just picked them.” Picking berries traditionally fell to the responsibility of women and children; within drill bow scenes berry picking offers a rare glimpse of female activity.

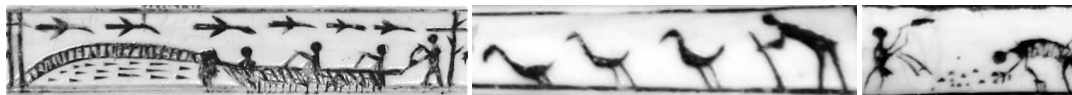


Fig. 333. Seining for fish with an umiaq. Drill bow PR 1886.1.693.

³¹⁴ Townsend (1887:86) describes a process of using seines in the Kobuk region, “In seining, which is always done in shallow water, one end is carried along shore by the children, the squaws toting the other end down stream in a large birch canoe or seal-skin boat, keeping it out as far as the length of the seine permits. Large numbers of salmon are taken in this way, and after being split open, are dried upon poles in the sunshine.”

Fig. 334. Hunting molting geese with a club. Drill bow HM 27.4.61/32.

Fig. 335. Picking berries with a scoop and bucket. Drill bow BM Am1855.1220.229.

Fall Hunting

Caribou herds arrive in large numbers as the tundra in Northwest Alaska changes to golden hues of orange and red. Caribou appear on almost one-third of all drill bows in various scenes including: kayaks hunting swimming caribou, hunting caribou on land with bow and arrow, field dressing a killed caribou, a caribou carcass with scavenger birds, two bulls clashing antlers, caribou herds, and caribou running, eating, jumping, laying down and nursing calves. James Omiak (April 2012) pointed out the running caribou on drill bow NMNH E24536 and observed engraved scenes with caribou must represent the mainland rather than any of the Bering Sea Islands (Fig. 336). Carvers continue to find inspiration in hunting caribou including Francis Alvanna who carves caribou out of ivory and Gary Sockpick who etches caribou on ivory jewelry. Ross Schaeffer avidly hunts and traps while also carving bone, ivory and wood. During one visit, Schaeffer (April 2012:9) discussed carving fall activities into a wood relief panel:

The fall one will be a person right here where he got a caribou. Have caribou skins laying out, some heads over here, and the boat, going after caribou in the water. And then I think when I have this bigger boat here, I'll have one caribou tied off the boat, the head tied on to the boat with the antlers on there. Because we hunt larger bulls in the fall time. And they wait, for the caribou to cross, and then they go after them. And shoot then with a 22 and then drag them to shore. They float.

Drill bow BM Am1949.22.23 illustrates a scene similar to the one described by Schaeffer in which a kayak hunter herds caribou with large antlers across the water to a bow hunter on the other side (Fig. 337). Gary Sockpick (June 2012) recalls there used to be a lot of caribou around Shishmaref, now starting to slowly come back, explaining after the ice

melts, mosquitoes will drive the caribou to the coast. Likewise, Edwin Weyiouanna (June 2012) shares reindeer once owned by Shishmaref integrated with nearby caribou herds and can be differentiated as reindeer feature shorter legs and shorter muzzles.

Finding time to hunt in the fall proves a challenge for many who also carve and have jobs. In Nome, Thomas Barr (April 2012) explains the last time he went home to Shishmaref was to hunt caribou and work now keeps him in town. Besides providing meat and hides, caribou provide other material as noted by carvers who discussed making caribou sinew (*ivalu*) (Ipalook March 2012; Weyiouanna June 2012) and Henry Koonook (April 2010) who described making a strong glue from the insides of fermented caribou hooves mixed with old seal oil.



Fig. 336. Three caribou in a row on drill bow NMNH E24536.



Fig. 337. A kayaker herds swimming caribou to a bow hunter on the shore. Drill bow BM Am1949.22.23.

The fall season also provides an opportune time to trap or hunt wolves when they trail after caribou herds (Fig. 338). Gilford Mongoyak (May 2012:12) etches scenes on baleen wolf scares and explains, “The story is that these [wolf scares] were used by reindeer herders to keep the wolves away from their reindeer or rather when they herd their reindeer in the corral.” Wolf scares might have originated from the practice of waving wolf tails at caribou to frighten them into snares as depicted on several drill bows (Fig. 339) Hunters regularly check their trap lines when the snow begins to cover the ground and the coats of fur-bearing animals thicken such as ermine, beaver, fox, lynx and wolverine. In St. Michael, Pauline Richardson (2012) makes dolls with leather faces

dressed in parkas of sealskin, rabbit hair and other furs provided by her husband and sons who run trap lines. Likewise, William Hopson (2012) shares that his mother made many fur parkas from the animals trapped by he and his brothers around Barrow noting a good year would bring in almost 100 Arctic fox and several wolverine caught further inland towards the mountains (Fig. 340).



Fig. 338. A wolf chasing caribou on drill bow AMNH 0/632.

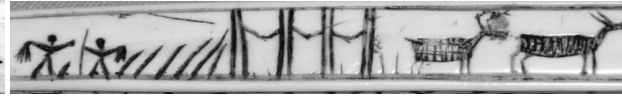


Fig. 339. Figures waving wolf tails to frighten caribou into snares on drill bow PR 1886.1.693.



Fig. 340. Stretched wolverine skins on drill bow ASM II-A-3.

Winter Village

The arrival of winter in the Bering Strait afforded communities opportunity for making and mending implements, storytelling, dancing, feasting, travelling by dog sled to neighboring villages, playing games, ice fishing and hunting polar bears. Winter scenes with dog sleds transporting loads of goods, people and pulling killed seals appear on 62 drill bows, almost one-fourth of the study group. Jack Frankson Jr. (March 2012:7) recalls a story about a dog part wolf belonging to his great-grandmother taking down a caribou and bringing it back to the family noting, “grandma had her own dog team, and the dogs were a lot bigger back then, so you could cruise a lot faster.” Baker Ningealook (March 2012) examined drill bow NMNH E24541 and described the illustrated dog sleds as using runners made from split driftwood logs about six inches in diameter (Fig. 341). Ningealook explains snow would hit the sides of the driftwood runners wearing out the exteriors first. Besides wood, older dog sleds also used ivory or whalebone runners. Jerome Saclamana repurposes old whalebone sled runners and engraves them with old

style pictorial scenes. At Maruskiya's gift store in Nome, Saclamana (April 2012:1) described one of his engraved runners, "There's these old bone sled runners. There's the holes that they made. And so I made a story knife. They're going hunting and then they pull the whale. [Flips over carving] And after that, all the people go to the clubhouse and dance. These I really like to carve." (Fig. 342).

Village life during the winter also offered children, as well as adults, a chance to relax and play games. Vince Pikonganna (April 2012:3) recalls while growing up on King Island, "We had fun playing and making our own toys, made our own sleds, if we can't make our own toys, we had big brothers or uncles make them for us." Pikonganna remembers young boys and girls would receive polar bear skins to clean, so they would take them to the side of the island, pile on top of the skins, and slide down. Likewise, Baker Ningealook (June 2012:4) reminisces about sledding on seal hides that used weights at the top edges when drying to create two flaps or handles noting the sleds worked really well except oil would rub off on the user's clothes and "we'd smell like blubber walking into the house." Two drill bows illustrate figures playing kickball including ASM II-A-6466 depicting a winter village with a large figure kicking a ball into an oncoming crowd (Fig. 343). Sylvester Ayek (April 2012:6) describes a winter ball game for adults on King Island, "one for mostly men was sort of like a hockey...There's two goals that each team would try to get to. And then, sometimes when we don't have a ball, the men would make a walrus-hide ball, and those are hard when they hit you."

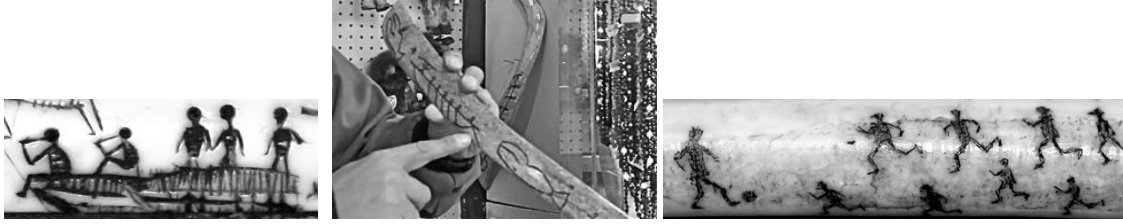


Fig. 341. Figures smoking pipes on top of sleds. Drill bow NMNH E24541.

Fig. 342. Jerome Saclamana describing a whaling scene he engraved on a bone sled runner. Nome, AK. 2012.

Fig. 343. Figures playing a ball game on drill bow ASM II-A-6466.

In addition to spending time in the village, winter also provides a chance to go ice fishing for tomcod, smelt, sheefish and other varieties. Scenes with figures ice fishing appear on seven drill bows including PENN 29-151-279 depicting two figures using wooden fishing sticks to catch what appears to be tomcod to place in the nearby basket (Fig. 344).

Thirty-three drill bows include the important winter activity of polar bear hunting which provides both meat and valuable thick white fur. Jerome Saclamana (April 2012) studied the hunter spearing a polar bear on drill bow NMAI 94635 and remarked that the scene looked like the King Island style of hunting (Fig. 345).³¹⁵ Francis Alvanna (April 2012:9) describes wind bringing seals and polar bears close to King Island, “In the wintertime we hunt, in King Island, seals. December, January and February, when the north wind blows for two weeks at a time, they drive those polar bears close to the Island. That’s when they get polar bear out there.” Ross Schaeffer (April 2012) remarked on the traditional pattern of white tusk-shaped patches sewn onto the front of fur parkas

³¹⁵ Baker Ningealook (June 2012) commented on the engraving quality of drill bow NMAI 94635 noting the carver wasn’t very skillful, as you couldn’t discern the type of hair on the bear.

explaining it served as a form of protection from polar bears who would think it represented a large walrus and not attack (Fig. 346).

Vince Pikonganna (April 2012) explains a polar bear belongs to the first person that sees it when hunting by boat but a polar bear belongs to whoever kills it when hunting on the ice. Pikonganna recalls King Island hunters of the past used to shoot and then spear the bear if they ran out of bullets following which they hung the bear hide on the roof and hung the polar bear skull above the dancing floor inside the qagri where they performed a polar bear dance to release the animal's spirit. Many contemporary carvers work polar bear imagery or fur into their artwork such as John Penatac (September 2012) who carves curvilinear ivory polar bear earrings, Perry Matumeak (May 2012) who frequently etches polar bears on baleen, Levi Angutiqjuaq (March 2012) who carved a polar bear drum dancer out of soapstone, and Emmanuel Hawley (March 2012) who has prolonged a piece of polar bear hide for two years worth of ruffs around his carved whalebone masks.

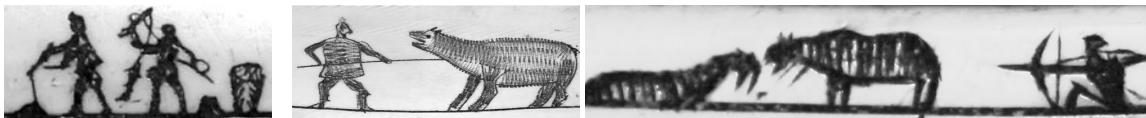


Fig. 344. Two figures ice fishing on drill bow PENN 29-151-279.

Fig. 345. Hunter spearing a polar bear on drill bow NMAI 94635.

Fig. 346. Bow hunter preparing to shoot a polar bear confronting a walrus. Drill bow NMNH E24539.

Celebration

Edward Nelson (1983:286) observed that within the qagri “Dances and festivals of all kinds are held in this building, and there the shamans perform some of their most

important ceremonies.” Dances varied by community but some of the most important ones that occurred were the Messenger Feast, the Bladder Festival, Naluquatuq, and dances and feasts held before and after successful hunting seasons (Fig. 347). Carvers faithfully recorded dance scenes on drill bows such as an engraved bow acquired by Samuel Spriggs in Barrow around 1900. In the detail, you can see a group of figures beating drums probably of stretched walrus stomach and a number of dancing figures wearing loon or raven headdresses (Fig. 348). The figures appear to be dancing during *Kivgiq*, the Messenger Feast held in Barrow. Imagery such as this dance scene could be used as visual aids to recount stories that would be ingrained into a carver’s mind each time he looked down while using a drill bow and saw the engraved figures animated through motion.



Fig. 347. Dancers with loon headdresses performing during a Messenger Feast at Barrow (from Kaplan and Barsness 1986:155).

Fig. 348. Drummers and dancers wearing loon headdresses probably during a Messenger Feast at Barrow. Drill bow SJM SJ-II-V-125.

In addition to special celebrations, the winter season was marked by an almost constant procession of feasting given by alternating qagri in return. Curtis (1930:103) said that during the winter, dances “are performed almost nightly until the days begin to

lengthen and the spring hunting season arrives.” On drill bows, dancing figures appear within and close to qagri and also outside on the tundra. Community members traveled to distant or outlying villages to attend ceremonial feasts and inter-tribal dances. Several engravings on drill bow show visitors arriving on sledges pulled by dogs to watch and participate in dances held outside. The style of dancing within communities was not highly variable but qagri in the same community comprised their own songs to use with the dance movements. Sylvester Ayek (April 2012:5) explains that of the three King Island qagri, “All three of them had their own dance group. The way they danced, was not very different, but using different songs and dances, to share with the other groups.” (Figs. 349-350).

Large whaling feasts continue to be held in Iñupiat communities, particularly in Barrow and Pont Hope. The feasts structure reciprocation, social activities and cycles of life. Steve Oomittuk (April 2010:5) describes this connection and relationship with marine animals, “Our community revolves around whales. You catch a whale, you have a whaling feast. Things follow. Christmas, you give out more whale. When you don’t catch a whale, you can’t have your whaling ceremonies.”



Fig. 349. Sylvester Ayek in front of a map of King Island. Nome, AK. 2012.

Fig. 350. King Island Dancers performing during the Kawerak Elders Conference in Nome, AK. 2012. Drummers left to right: Vince Pikonganna, Francis Alvanna, John Penatac and Sylvester Ayek.

Spiritual

Several engraved drill bows reveal shamanistic practices or encounters with the spiritual world. Vince Pikonganna believes drill bow NMNH E48522 belonged to a shaman who is illustrated flying out of a qagri (Fig. 351). Pikonganna (April 2012:4) remarks, “There were good and bad shamans in those days. The good shamans were to help the village of course, hunting, weather, foreseeing the future. Bad shaman would be only to himself, help himself gain wealth, get another wife, or use his power in not so good way.” Bernard Katexac from King Island carved a wooden pair of “Good and Bad Shaman Masks” for dancing that feature distinctions between the prominent noses, protruding upper lips and extended lower lips (Fig. 352).



Fig. 351. A drummer and figure inside a qagri with a shaman flying outside over a bowhead whale. Drill bow NMNH E48522.

Fig. 352. “Good and Bad Shaman Masks” by Bernard Katexac from King Island. Carved and painted wood. UAMN UA69-015-0001AB-1. Photograph courtesy of the University of Alaska Museum of the North.

Myth Creature

Prominent within Iñupiaq oral narratives are mythological creatures with fantastic features. One drill bow depicts an array of myth scenes incorporating walrus, seal and

wolf-transformation motifs and a type of creature with elongated neck and wavy horns or antennae riding in an umiaq with a harpoon projecting from the stern (Fig. 353). On the left, a similar creature has transformed into the umiaq itself with three hunters harpooning a bowhead whale using the spiritual assistance of a small fox or dog. Ross Schaeffer (April 2012:4) describes this drill bow's creatures:

This is the most interesting thing. These like serpents. I've seen pictures of them and I always wondered, what kind of creature was out there at one time, because they usually show what they've seen. And I always wondered. I've seen these and I've seen them come up like this, with the [antennae] and like a long serpent body. So there must have been something out here a long time ago.



Fig. 353. Figures hunting bowhead whale in a mythical umiaq with large myth creatures forming a second umiaq on the right. PMAE 94-57-10/R106.

Thunderbirds appear carrying off bowhead whales, walrus and caribou in illustrations and on engraved ivory drill bows, pipes and harpoon rests (Figs. 354-357).³¹⁶ The engraved thunderbird on drill bow 4501 inspired Kenny Tikik (March 2012:9) to share a story passed on to him by his father describing his grandfather's encounter with a large eagle:

He said one time while he was in Point Hope lying on the tundra, he was like five, six years old, lying on the tundra going to sleep, real nice out, sunshine day, and while he was sleeping, he says a shadow went over and he noticed that a real big eagle was coming down to him. And it grabbed him and he started moving around and he started going back up again, big as a Twin Otter. And that's how my dad used to say that's how his dad got caught by one of those hunting out on the ice, on

³¹⁶ Photographed by a camera trap set up to study Amur tigers in the Russian Far East. Researchers discovered the deer's carcass a few yards from the camera without any large carnivore tracks in the snow. Images from the camera revealed the golden eagle attack over a 2-second period and are the first documentation of a golden eagle preying upon a Sika deer. Linda L. Kerley and Jonathan C. Slaght, First Documented Predation of Sika Deer (*Cervus nippon*) by Golden Eagle (*Aquila chrysaetos*) in Russian Far East, *Journal of Raptor Research* Sep 2013, Vol. 47, No. 3: 328-330.

the lead. He said a big eagle went and got him. Where he was at, there were his tracks right by the lead, three shells, 30-30 shells, and like thirty feet apart were the wingtips of an eagle hitting the snow like that. Just the tips were right there, thirty feet apart from where he was at on both sides . . . I heard stories where a big eagle like that would grab a kayaq and a hunter at the same time and just grab them and fly away. *Tigimaqpuk*. Big eagle. He used to tell me stories like that.



Fig. 354. Illustration of a thunderbird carrying off a bowhead whale by an Alaska Native artist. c. 1890. National Anthropological Archives, Smithsonian Institution, Manuscript 260447.

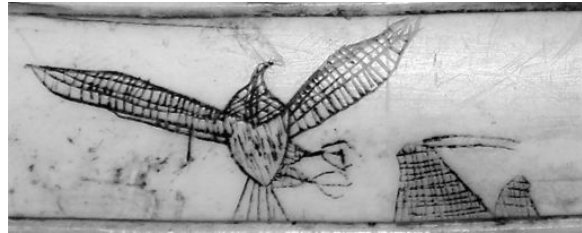


Fig. 355. A thunderbird attacking a walrus on ivory drill bow Burke 4501.



Fig. 356. A thunderbird carrying off a caribou on ivory drill bow SJM SJ-II-V-125.



Fig. 357. A powerful adult Golden Eagle sinks its talons into the back of a young Sika deer in the Lazovskii State Nature Reserve in Primorye in the Russian Far East (from Kerley and Slaght 2013:328).

Warfare

Fifteen drill bows depict scenes of warfare. When speaking of warring villages, Jack Frankson Jr. (March 2012) recalled the movie *Fast Runner* and violent invaders who would come into camp and forcibly take everything comparing it to stories he had heard of past animosity between Kotzebue and Selawik. Frankson greatly admires his great-grandmother who raised his mother and carried a rifle with her at all times for protection,

leaving behind one of the dogs to watch over the family if she had to go out hunting or fishing. One ivory drill bow depicts two invaders arriving at a summer camp and using spears to attack an unaware figure picking berries and another figure emerging from a skin tent holding up a hand in protection (Fig. 358).

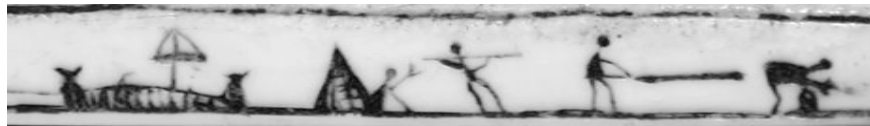


Fig. 358. Figures attacking a summer camp on ivory drill bow PR 1884.68.22.

James Omiak (April 2012) shared another story of Siberians coming across and fighting Kawerak people with bows and arrows leaving behind Siberian arrowheads still found today. During one such battle, a mother and infant escaped by using grass to breathe underwater but the infant drowned and some people have heard the lost child crying north of Kayvik while out berry picking. A drill bow from Little Diomedede reveals a similar battle scene between Iñupiat villagers and Siberian invaders using spears and bows and arrows with one Siberian Native wearing a slat armor skirt and shield (Fig. 359).



Fig. 359. Alaskan and Siberian figures engaged in warfare on ivory drill bow PMAE 67-9-10/144.

Drill bow NMNH E44467 illustrates a village war scene in which tall figures with long spears attack and subdue people out in the open and inside sod houses (Fig. 360). Baker Ningealook (June 2012) notes the engraved motifs of raised sod houses on drill bows don't appear correctly as typically only the living quarters would show above

ground as a grassy mound. Ningealook explains a sod house comprised an underground entrance with a log roof that blended into the landscape and hid villagers from warring people, particularly invaders from Siberia. Similarly, Sylvester Ayek (April 2012:6) describes King Island men of the past served as warriors and utilized the rocky terrain to protect the village:

Villagers come into another village and kill as many men as possible. King Island was one of the very difficult places to invade. There's a war song, warrior's song that we know today. There are no dance motions to it. They just sang it. Telling the other villagers, that there's no place to hide on our island, because it's so small. And the islanders knew every rock and cranny all around the island. And all of these rocks have names, every one of them, even the smallest ones.

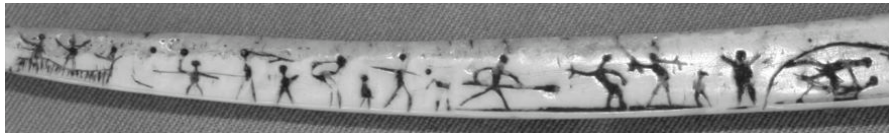


Fig. 360. Figures attacking a village on ivory drill bow NMNH E44467.

Tally

Over thirty drill bows depict rows of animals or stretched skins of bearded seal, beaver, beluga, bowhead, caribou, ermine, wolf and wolverine. Skins of marine and land mammals provided material for a range of goods such as caribou skins for tents, walrus or bearded sealskins to cover umiat and kayaks as well as to make thong, wolverine fur for parka ruffs and tool bags, bearded sealskins for mukluk soles and a variety of skins stitched decoratively together for articles of clothing. Nelson (1983:84) suggests engraved drill bow scenes represent personal events and animal rows or tallies illustrate an owner's record of hunted animals or skins in his possession.³¹⁷ However, Murdoch

³¹⁷ Interestingly, Daniel Neuman copied Edward Nelson's (1983:84) drill bow description verbatim into his handwritten catalogue indicating Neuman owned a copy of Nelson's publication and possibly used it as a

(1988:177) notes language differences caused difficulty in ascertaining whether engraved animals indicate tallies, “[Lucien] Turner informs me that the natives of Norton Sound keep a regular record of hunting and other events engraved in this way upon their drill bows, and that no one ever ventures to falsify these records. We did not learn definitely that such was the rule at Point Barrow.”³¹⁸ In general, rows of engraved animals or skins depicting variation in size and shape suggest a gradual or continued process of adding to a record while animal rows of almost identical proportions spaced evenly apart suggest a general representation of skins or filling in of space (Figs. 361-362).

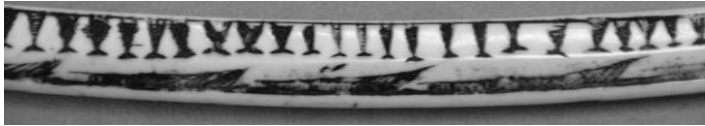


Fig. 361. A row of whale flukes in graduated sizes and shapes suggesting the carver added the motifs at different times. Drill bow NMAI 13463.

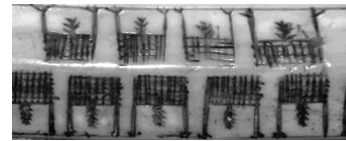


Fig. 362. Rows of similar size wolf skins spaced evenly across the surface as a decorative element on drill bow ANC 1971.019.001.

During community visits in 2012, most carvers suggested rows of engraved animals such as bowhead whales and flukes represented a hunting record (Figs. 363-364). For example, drill bow NMNH E48522 depicts a long row of hunters with ice picks pulling fourteen bearded seals, which Jerome Saclamana (April 2012) thought could be the number of seals caught that season (Fig. 363).³¹⁹ Drill bows also feature stretched

field guide for making collections in Seward Peninsula between 1910-1920. ASM, Daniel Neuman Accession.

³¹⁸ Murdoch (1988:189) did collect an ivory bag handle (NMNH E89424) engraved with two rows of 26 whale flukes that locals told him represented the actual hunting score of Yūksi’ña, a chief at Nuvuk. See Appendix E for an illustration of NMNH E89424.

³¹⁹ Saclamana (April 2012) also pointed out that the animals on drill bow NMNH E48522 definitely represented bearded seals and not walrus as the latter would require at least two hunters to drag.

sealskins as seen on NMNH E89425 and connect with the continued practice of hunting seals and processing skins (Fig. 364). As a child growing up in St. Michael, Flora Matthias (April 2012) describes not having many opportunities to observe tanning sealskins or making seal poke containers. After marrying her husband Albert, Flora asked her mother-in-law for ideas on how to tan spotted sealskins, following which she made herself a stretcher and learned how to peg the skins from top to bottom and then the sides. Engraved whale skins on drill bows and large number for umialik (Figs. 365-365).

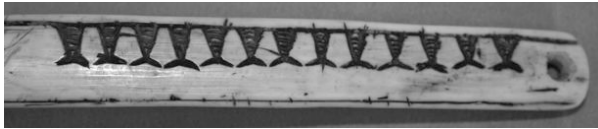


Fig. 363. A row of whale flukes on drill bow NMNH E176172.

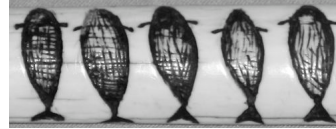


Fig. 364. A row of bowhead whales on drill bow PR 1886.1.697.



Fig. 365. Pulling bearded seals on drill bow NMNH E48522.

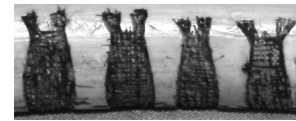


Fig. 366. A row of bearded sealskins on drill bow NMNH E89425.

Sailing Ship

From the rise of early nineteenth century expeditions, Alaskan Native traders looked forward with anticipation to the summer arrival of sailing ships to the Arctic. Ships presented opportunity to trade for dry goods, metal tools and personal articles in addition to receiving news from other villages and a general source of entertainment. Vince Pikonganna (April 2012:3) recalls the story of a shaman on King Island foretelling

the arrival of sailing ships, “Many days ago a shaman at King Island said there would come a ship and you will hear a bird like this [rooster crowing], villagers laughed as there was no such thing, some time later, there comes a ship and the first sound heard [crowing] and they believed him since then.”³²⁰

Carvers demonstrated a process of visual indigenization in which they incorporated ship imagery into their existing canons of drill bow motifs. Sailing ships appear on twenty-nine engraved drill bows in the study group along with three drill bows with engraved sternwheelers and one drill bow which depicts a small river boat. Drill bow carvers scrutinized the ships in such detail that several of the vessels can be identified including the U.S. Revenue Cutter *Corwin* on drill bow PHMA 2-1559 and the schooner *W. F. March* on drill bow NMNH E176172 (see Ch. 8, Figs. 304, 306).

By the early 1890s, Native groups from King Island, Wales, St. Lawrence Island and other villages made annual trips to Port Clarence to trade with the many whaling ships in harbor monitored by the U.S. Revenue Cutter *Bear* (Fig. 367). Drill bow NMAI 52955 depicts a three-masted schooner, probably the *Bear*, surrounded by smaller whaling ships and numerous umiat and kayaks paddling out to meet their arrival and barter for goods (Fig. 368). John Pullock (April 2012) remembers his grandfather talking about the *Bear* coming out to King Island at which time men would sell their ivory carvings and trade for tobacco, flour and sugar.³²¹

³²⁰ Pikonganna (April 2012) also explains that King Islanders traveled on whaling ships, “Years ago whaling ships took people from King Island as translators to other villages, even Hawaii, probably traveled to cities...shamans used to travel to faraway places, even Seattle.” Many Bering Strait villagers found employment with the booming whaling trade as noted by James Omiak (April 2012) who describes his father Vincent Omiak, a skilled ivory carver from Big Diomede, working on a whaling ship.

Likewise, Brian Sockpick recalls his uncle Herbert Nayokpuk telling him stories about the arrival of the first mast ships and the Revenue Cutter *Bear*. One story Sockpick (April 2012:5) remembers describes an escape from the *Bear* by his great-great grandfather who was a shaman, “There were two shamans in Shishmaref. Nayokpuk and Kuzuguk. Always competing against each other, seeing who’s better. They’d predict the weather, where to hunt. They arrested the shaman, the *Bear*, and he would keep disappearing in his room even though they had a guard, in front of his door. They’d look and he’s gone. They’d see him around the ship and then he’d be back in his room.” Another story about the *Bear* comes from Glenn Ipalook (May 2012) whose great-grandmother, Keruk, sewed clothes for the *Karluk* crew during the ship’s last voyage, with survivors rescued by the *Bear* at Point Barrow in 1914.³²² Ipalook transforms his family’s history into the creation of detailed baleen ships based on nineteenth century whaling ships and the Revenue Cutter *Bear* (see Chapter 1).

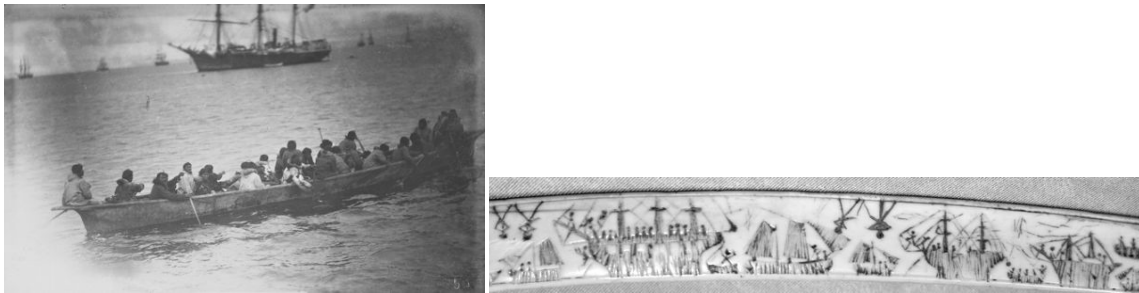


Fig. 367. “Bidara, Port Clarence.” Bering Strait Natives departing Port Clarence probably to trade with the nearby whaling ships and the *Bear*. Photograph in an album compiled by

³²¹ John Pullock (April 2012) notes that families on King Island would often grow short on dry goods by springtime and recalls his uncles traveling by boat to Wales to pick up sugar and flour.

³²² The *Karluk* served as the flagship of the Canadian Arctic Expedition of 1913-1916, organized under the anthropologist Vilhjalmur Stefansson. In August 1913, the ship became trapped in the Arctic ice while sailing to Herschel Island, the ship was lost and efforts to reach land resulted in the deaths of almost half the crew. For Stefansson’s account of the voyage see, Vilhjalmur Stefansson, 1921, *The Friendly Arctic*, New York: The Macmillan Company.

Alfred L. Broadbent of the U.S. Revenue Cutter Service in Alaska and Siberia, 1885-1892. Courtesy Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, WA Photos 397, object id 2019834.

Fig. 368. Umiat and kayaks trading with whaling ships and possibly the three-masted U.S. Revenue Cutter *Bear* on engraved drill bow NMAI 52955.

The late nineteenth century explosion of Arctic whalers and traders also instigated a period of transculturation in North Alaskan communities. Baker Ningealook shares a story in which whalers presented flour to Shishmaref ladies, who didn't know what to use it for, so they climbed a hill and threw fistfuls into the air and enjoyed watching it blow away in the breeze. Likewise, Ningealook thinks about the gold coins whalers gave to villagers from Shishmaref who tossed them overboard as they were considered worthless without holes for sewing on to clothing.

Whaling ships also carried negative goods such as alcohol and knowledge of creating distilleries. Ken Lisbourne (June 2012) recounts the introduction of whisky into Point Hope by the whaling ship *North Star* provoking the ferocious chief Ataᅇauraq to travel to Jabbertown and demand the Japanese cook to make home brew.³²³ Whaling ships engraved on drill bow NMNH E44366 prompted Art Oomittuk (April 2010) to remember the story of Anaqulutuq at Point Hope who drew maps of the surrounding area for commercial whalers who had grown tired of fish and wanted meat from land animals (Fig. 369).



Fig. 369. Whaling ships and caribou engraved on drill bow NMNH E44366.

³²³ Lowenstein (2008:97-148) provides detailed information on Ataᅇauraq's volatile history as a shaman, trader and self-identified chief of Point Hope.

Finally, St. Michael also served as a late nineteenth century hub for ships and sternwheelers traveling up the Yukon. When looking at collection photographs, Joe Akaran (April 2012:3) pointed out the inclusion of steamboats on the engraved drill bows remarking that around St. Michael, “we used to have a lot of steamboats, and there’s still kind of a little bit of rubble around. In a canal, I figure about, eight, nine miles out from here, you can take a boat and you go through the canal, there’s a place called Steamboats, that’s what we call it, they . . . didn’t follow the river right and just landed up on shore and there they sit. Very good hunting ground, for the white geese.”

During the early 1890s, Iñupiat artist Guy Kakarook created a drawing of a sternwheeler passing in front of the Alaska Commercial Company buildings at St. Michael (Fig. 370). The scene is analogous to imagery engraved on drill bow PHMA 2-1425 which includes an image of the ACC in the center with an identical sternwheeler, possibly the *Ninivak*, departing from shore on the right (Fig. 371). The range of ships engraved on drill bows reveals multiple avenues of cross-cultural interactions during a period when carvers retained a strong sense of cultural self-preservation.

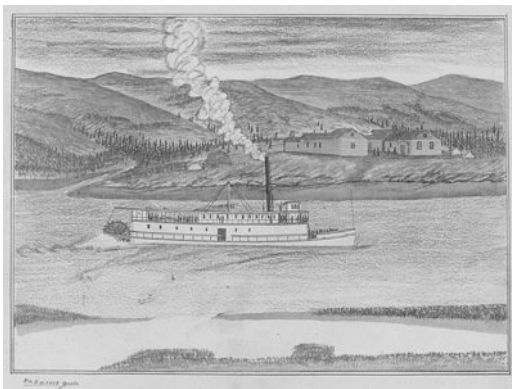


Fig. 370. Drawing of a sternwheeler at St. Michael by Guy Kakarook. c. 1895. Sheldon Jackson collected two volumes



Fig. 371. Engraving of a sternwheeler departing St. Michael on drill bow PHMA 2-1425.

of crayon, ink and watercolor drawings by Kakarook now in the National Anthropological Archives, Smithsonian Institution, Manuscript 316702.

Westerner

A nineteenth century market for carved ivory and other Native-made objects, increased cross-cultural interactions between Alaskan Natives and Westerners (Fig. 372).

Ethnographic accounts provide a glimpse of these interactions but are primarily one-sided and tend to homogenize cultural particularities and peoples. Not always welcomed, foreign presence challenged tribal sovereignty and instigated spiritual and cultural conflicts. Seventeen drill bows include engraved images of Westerners commonly depicted with curved brim hats shown aboard sailing ships and small barges in addition to village and camp scenes next to buildings and tents (see Appendix F, “Westerner”).



Fig. 372. “A Doubtful Bargain.” Photograph by Edward Curtis, taken during the Harriman Alaskan Expedition of 1899. Smithsonian Institution Archives, Record Unit 7243, Box 1, Folder 6.

Multiples

Ninety-one drill bows feature more than one carver’s hand on the same bow suggesting drill bows were valued possessions passed down from older carvers to sons or

nephews who would then engrave their own stories. Multiple carvers working on a single drill bow also reveal that objects in Arctic communities had complex social lives before being acquired by outside collectors.³²⁴

While the practice of completing or adding to another carver's work does not appear to be a widespread practice among contemporary carvers it does occasionally happen. For example, Vince Pikonganna (April 2012) commented that after selling his first carved seal, another carver took it home, fixed it up, or improved it according to the second carver's standards, and then put it back on the sale table in the clubhouse. Pikonganna said it was certainly his seal because he recognized his own work. In addition, other carvers may be asked to fix or add to another carver's work. King Island carvers Francis Alvanna and Joe Kunnuk both spend time fixing ivory carvings in Nome including a large number of old carvings at Maruskiya's. Similarly, John Pullock (April 2012) describes being asked to fix a baleen and ivory ship made by the late Percy Nayokpuk of Shishmaref displayed at the Wells Fargo in Nome. Likewise, as noted by Joe Kunnuk, when teaching young kids at the Nome elementary school he often had to help finish student projects.

While passing carvings among contemporary carvers is not a standard practice, the circulation of carvings does help account for the presence of multiple hands and styles on a single drill bow such as NMNH E45333 collected by Edward Nelson (Fig. 373a-d). Wedged from a long ivory tusk, drill bow E45333 is of rectangular shape with two wide and two narrow sides. Mottled yellow dentine appears on the convex side suggesting the

³²⁴ See discussion on multiple engraving styles in relation to the circulation of drill bows among ivory carvers in Chapter 7.

bow's slight curve results from the ivory being incised and pulled away from the tusk's center. Two round holes are drilled on either end of the bow for securing a now absent hide strap.

The artistry of at least four different engravers are revealed in the tightly packed scenes of figures shooting caribou, harpooning bowhead whales and paddling out to meet American whaling ships. The bow's convex side appears to have been completed by Carver One and features dark brown motifs, figures with raised arms, umiaks with paddles in the water, and two central whales filled with dense vertical lines and spray comprised of a central line and close radiating V's. The whaling theme continues on the bow's concave side which features three sets of black engravings all pairing a whale with an upside down umiak or kayak.

Carvers Two, Three and Four appear to have contributed to the paired motifs which vary in quality of line, figural composition, construction of whale spray and range of fill from cross-hatch to vertical lines. The bow's repeated subject matter suggests its use as a template for learning how to engrave particular motifs. Likewise, the whaling scene might have also reinforced a particular story such as "A Long Unipkaa" describing a giant whale hunter told by Jimmie Killigivuk of Point Hope (Fienup-Riordan and Kaplan 2007).

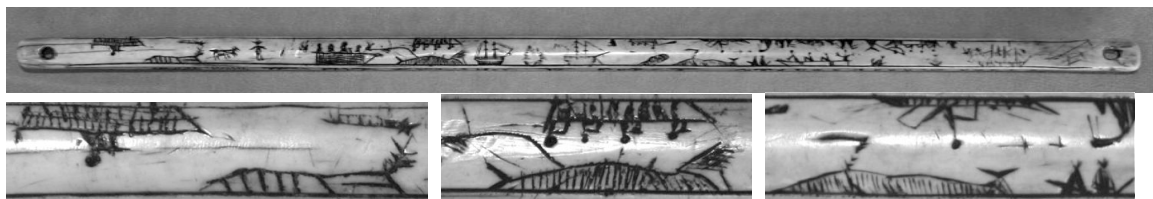


Figure 373a-d. Three variations of whales, kayaks and umiak engraved on ivory drill bow NMNH E45333.

Souvenir

Contemporary carvers from King Island and Little Diomedede still recall Nome during the heady years as a bustling tourist town (Figs. 374-375). John Pullock (April 2012) remembers King Island families camping at the sand spit and following the 1973 flood discovered an ivory cigarette holder with a carved fox along the beach where carvers used to work. Pullock (April 2012:4) describes selling ivory carvings inside the King Island clubhouse to tourists down at “East End”.³²⁵

I see that they have this kind of table on east end for tourists; they used to be filled with the carvings. And then, down on the end, for slippers and like that. You put your carving on here [the table]; you put your name on it. And this guy, would look at it, he had a little book, would put your name. They don't take our information; they just buy it. And, that's how I used to make money, when we moved here, to Nome.

Francis Alvanna (April 2012:5) comments when tourists visited the clubhouse, older ivory carvers continued to work while young boys looked after the visitors, “When the bus came, down to East End, we would go help and watch the carvings for the carvers. These carvers are big; they don't have time to [wait on buyers]. So we watched the tourists, in case somebody go like that [slips carving into pocket without paying].” James Omiak (April 2012) remembers tourists always coming to East End where his father Bob Omiak carved alongside King Islanders making ivory billikens and jewelry pieces (Figure). Omiak states his father used to put his ivory bracelets on the clubhouse table for him where they sold for five dollars.

³²⁵ A metal Quonset served as the King Island clubhouse in Nome until destroyed by a flood, see Chapter 4.

Economic development in North Alaska has brought waves of tourism and ivory buyers to Nome over the years. Sylvester Ayek (April 2012:9) comments that during the construction of the pipeline:

I did a lot of ivory. Because there was a lot of money going around in the pipeline construction days, a lot of people with a lot of money. I couldn't make enough of ivory carvings. And of course, I tried to do something different, along the way, experiment with doing something totally different than carving seals, polar bears, and stuff, and walrus. I'd like to experiment using ivory. What I used ivory for, when I started working in larger scale, is to make little models out of ivory, for large-scale work.

Like other contemporary Native artists, ivory carvers have struggled with working in the confines of 'authentic' Inupiat art or subject matter. John Penatac participated in art classes at UAF and carved an abstract walrus out of soapstone but none of the Nome shops expressed interest as Penatac (September 2012:2) states, "they didn't know anything about it, they want tourist art." Likewise, Teddy Mayac (2012) comments that over the years he developed a reputation as "the bird guy" for his intricately carved ivory birds and would like to carve additional subjects but buyers only request ducks and geese. Ken Lisbourne specifically markets himself as an "Eskimo Artist" and his watercolors include a unique signature of an "Eskimo" man and an igloo from which he jokes with tourists that he has to remodel his igloo every summer. Lisbourne (June 2012:2) maintains a sign with "Inupiaq artist" would draw blank stares and encourages young artists to embrace the nomenclature, "Eskimo is a good marketing name and I'm trying to tell young people not to be ashamed of it." Finally, Art Oomittuk (April 2010) insists understanding of the market is essential to rural artists and is working to set up a foundation titled Kutsuliat with Ilisaġvik College in Barrow to develop a marketing label and website for North Slope artists.



Fig. 374. Tommy Sooluk of Little Diomedé carving ivory with a bow drill probably at Nome or Kotzebue. His toolbox holds extra sections of walrus tusk, files and polishing cloth. Two finished ivory billikens can be seen on the left. Photograph by Donald Burrus, 1946. Alaska State Library, Historical Collections, ASL-P466-02-068.

Fig. 375. Ivory carvers under an umiak on the beach at Kotzebue or Nome. The central figure uses a bow drill while the man on the left wields an adze. Photograph printed with the caption “Eskimos of Nome, Kotzebue and Barrow are famous carvers of walrus ivory... Art objects can be bought direct from craftsman or shops.” Photograph by Bob and Ira Springs, Exploration Holidays, EH-74.

Many drill bows in the Nome engraving style appear to have been made as souvenirs showing little signs of use wear yet paired with old bearded sealskin straps and are often engraved with repetitive motifs. Two drill bows (SJ-II-J-91, NA460), collected between 1903-1906 by Reverend John White and George Byron Gordon, appear to be of a somewhat later Little Diomedé style engraved by a single carver (Figs. 376-377). The two drill bows include characteristic Little Diomedé elements such as square torso figures and loose hatch fill but the overall design shows an affinity with the contemporary style of engraving featuring large motifs spaced widely apart as isolated elements. The two slightly curved bows are carved from mineralized ivory and feature highly polished surfaces. Motifs have shallow to deep hatch lines filled with graphite and represent the only examples of graphite fill in the Little Diomedé style.

Each mineralized drill bow includes two engraved sides with imagery aligned along the lower baselines illustrating summer and early spring activities. For example, one side of SJ-II-J-91 shows a summer scene of fish and an umiaq under sail while the reverse depicts a dog sled and row of walrus and geese. Likewise, NA460 has a warm weather scene with reindeer and conical tents and an opposite scene with figures dragging seals across the ice to houses on stilts. The presence of reindeer on NA460 tempts a suggestion that the carver came from Little Diomed and traveled to neighboring Wales in the summer to assist with the reindeer herd established in 1900. This supposition also supports how the bow came to be acquired by Gordon in Wales during 1905. As White collected the other bow (SJ-II-J-91) in Nome, the carver might have joined an annual excursion of residents from Little Diomed who headed to Nome to barter for household supplies and sell ivory carvings.



Fig. 376. Mineralized ivory drill bow with bearded sealskin strap collected by Reverend John White. SJM SJ-II-91.

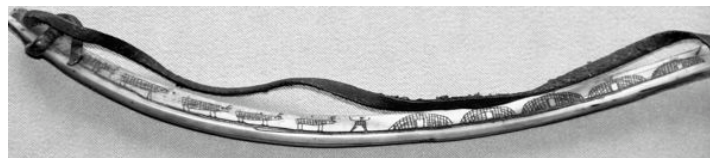


Fig. 377. Mineralized ivory drill bow with bearded sealskin strap collected by George Byron Gordon. PENN NA460.

Drill bows II-A-3 and II-A-4 share a number of identical motifs and fill techniques positing the handiwork of a single carver probably from Wales (Fig. 378-379). The rectangular bows feature lightly incised upper and lower baselines, a long section of

blank space on one side, and a combination of large and small-scale motifs shaded with rocker fill and loose vertical lines. Bows share a similar sequence of motifs with scenes of hunting walrus, pulling seal and stretched wolverine skins on one side while the reverse shows polar bear cubs followed by a single seal and two bowhead whale flukes. The carver used an interesting combination of old and more modern pictorial styles such as traditional small stick figures with drilled heads and villages with sod houses shaded with vertical lines. Other engravings show a new realism including large motifs filled with rocker technique and details seen in the polar bear fur, patterning in wolverine skins and nails on large seals. Diversity in motif styles indicates the carver's awareness or experience with old pictorial engraving while demonstrating openness to new imagery and techniques.

Acquisition details for drill bows II-A-3 and II-A-4 reflect the transient lifestyles of carvers working in the Nome engraving style and the often-incongruous nature of collector records. Daniel Neuman collected both bows between 1910-1920 and in his handwritten catalogue describes II-A-3 as "Nome. Etched with village hunting." while he identifies II-A-4 as "Cape Prince of Wales . . . carved with pictorial writing."³²⁶ The discrepancy in locations suggests Neuman attained II-A-3 in Nome from an itinerant carver and perhaps collected II-A-4 on a physician's visit to Wales. The similar bows also reveal the carver's sense of marketing acumen that allowed him to draw from a standard repertoire of motifs for quick adaptation to carving size and buyer interest.



³²⁶ From Daniel Neuman's *Catalogue*, Alaska State Museum, Neuman Accession Files.

Fig. 378. Engraved ivory drill bow with bearded sealskin strap collected by Daniel Neuman. ASM II-A-3.



Fig. 379. Engraved ivory drill bow with bearded sealskin strap collected by Daniel Neuman. ASM II-A-4.

Collector Interpretations of Engraved Drill Bows

On drill bows, the presence of use wear, layered motifs and multiple engraving styles indicates that these implements already experienced complex social lives before acquisition by collectors. Thick with family histories and countless tales, collectors could have scarcely understood the multi-modal dynamic of drill bows during whirlwind collecting trips through Northern Alaska. Rather than recording engraved stories, the majority of collectors appear focused on obtaining ivories of high aesthetic quality such as Edward Nelson whose journal highlights specific ivories carved particularly fine.³²⁷ Removed from their Arctic environment, Non-Native authors attempted to retell drill bow stories through the lens of collector, historian and connoisseur.

Walter James Hoffman

In *Graphic Art of the Eskimos* (1897), Walter James Hoffman takes on the monumental task of explaining almost all the engraved ivory carvings acquired by Smithsonian ethnographers Lucien Turner, Edward Nelson and John Murdoch in addition to the large collection of engraved ivories held by the Alaska Commercial Company (ACC) in San Francisco. Hoffman (1897:741) organizes engraved imagery using the Linnaean classification system with headings such as, “habitations and conveyances,

³²⁷ See Chapter 2 for discussion on Edward Nelson’s descriptions of carved ivories.

utensils and weapons, hunting and fishing, and travel and geographic features.” As described in Chapter 8, Hoffman employed the interpretation and design services of Vladimir Naomoff, an Alutiiq man who worked for the ACC, as well as an Iñupiat man from the Kotzebue Sound area. While Hoffman does not identify instances of Native voice within his text, he does quote reports and letters of ethnographers to support his explanations of imagery.

In addition to categorizing motifs, Hoffman provides certain objects with complete descriptions such as drill bow NMMH E48524 illustrated in Plate 68 under “Records on Ivory Rods.” (Fig. 380). Edward Nelson collected drill bow E48524 in Kotzebue Sound between 1877-81 but the drill bow’s imagery points to an original social setting of Point Barrow with a large horizontal figure with square torso, wolf and walrus transformation figures, umiat with simplified rectangular figures and Point Barrow construction style of kayaks. Hoffman provides the following description:

an old and age-stained specimen of ivory, also representing a drill bow . . . in the middle of the record are two cone-like structures, denoting mountains, between which is a semicircle . . . the significance of this appears to be that between two mountain regions occurs an abundance of timber . . . a continuous line extends from the mountain toward the right and connects with a man disguised in a wolf skin . . . It may denote the act of a shaman in such disguise approaching the habitations and extracting something therefrom, or he may intend to harm one of the occupants: or it may signify that in this disguise he was enabled to approach walruses and shoot them. This method of disguise was practiced by some of the prairie tribes of Indians west of the Mississippi River . . . toward the right are two kaiaks, the shapes of which are very graceful. (Hoffman 1897:878-79)

Hoffman’s account reveals several characteristics of late nineteenth century anthropological reasoning. First, Hoffman draws a comparison between both Alaska and Plains tribes wearing wolf “disguises” indicating a similar developmental process of hunting techniques by indigenous peoples. Particular attention is also given to explaining

spiritual aspects of the imagery while Hoffman attempts to translate other motifs into a non-Native mode of understanding such as mountains and a circle representing the presence of timber. Finally, the author points out aesthetic traits such as “graceful” kayaks and “crude” figures.

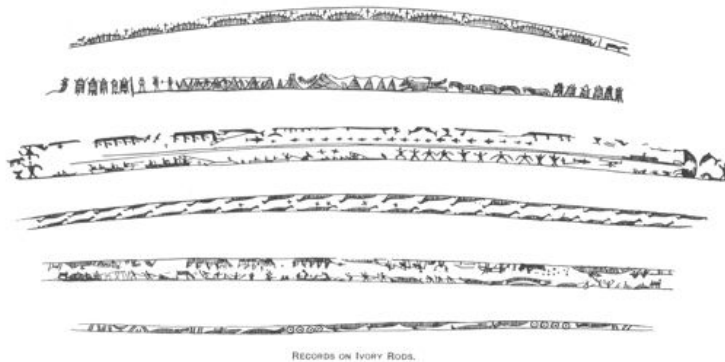


Fig. 380. “Records on Ivory Rods.” Illustration of engraved ivory drill bows in the Smithsonian NMNH. Drill bow NMMH E48524 is second from the top. (from Hoffman 1897:Pl. 68).

George Byron Gordon

In contrast to Hoffman who penned ivory descriptions without journeying to Alaska, George Byron Gordon based his book *In the Alaskan Wilderness* (1917) on personal journeys taken along the Yukon and Bering Sea during 1905 and 1907. Gordon’s account offers insight into early twentieth century ivory carving toolkits, engraved ivory objects, and mythical creatures as illustrated in Native folklore and on cultural objects. Descriptions of objects are integrated within larger narratives of village activities and demonstrate a discursive move towards describing material culture *in situ* or within a cultural context. Gordon acquired seven engraved drill bows from Alaska and

at the end of his book he breaks down one drill bow collected at Cape Prince of Wales in 1905 with numbered motifs and the following interpretation (Fig. 381):³²⁸

Aglu is a sea monster bigger than the whale. He has long sharp teeth and jaws that work horizontally. Keelugpuk, the Mammoth, once lived in the sea, but was driven out by the Aglu . . . Keelugpuk is now extinct, but long ago the Eskimo used to kill and eat him when he rose to the surface of the earth. A great deer much larger than the caribou or moose which formerly lived in Alaska and was hunted by the ancestors of the Eskimo. This animal, “the partner of the reindeer,” first lived in the sea, but was driven out, together with Keelugpuk, by Aglu, and for a long time he continued to live on the land. Amakum is described as a huge monster that formerly lived on the tundra and frequented pools. Tunook is the devil. He is sometimes seen by hunters on the lonely tundra.
(Gordon 1917:246-47)

Like Hoffman, Gordon’s account reveals a particular fascination with Native mythology and supernatural creatures. However, Gordon identifies the original owner and attempts a translation based on Native voice, albeit through the perspective of a non-Native ethnographer.

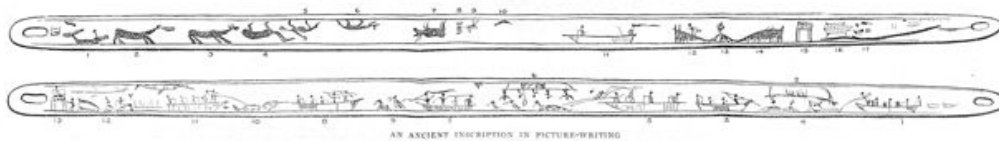


Fig. 381. “An Ancient Inscription in Picture-Writing.” Illustration of an ivory drill bow collected and illustrated by George B. Gordon (from Gordon 1917:following pg. 247).

Daniel Neuman

Daniel Neuman acquired eleven pictorial engraved drill bows between 1910-1920 and illustrated two of them with colored pencil in his *Catalogue of collections*.³²⁹

³²⁸ The University of Pennsylvania Museum of Archaeology and Ethnology catalogued the illustrated drill bow as NA 461 but the carving no longer exists in the collection. Mason (1927:278) includes a photograph of drill bow NA461.

³²⁹ The other illustrated drill bow includes ASM II-A-9 see Chapter 2.

Neuman described entry “1667” as an engraved ivory drill bow from Wales accompanied by the following explanation (Fig. 382):³³⁰

Drill bows, some of which are nearly straight while others are strongly curved, measuring from 11 to 19 inches in length, are in common use. They are square, sub oval or triangular in cross section and commonly have one or more of the surface covered with etchings representing various incidents in the life of the owner, such as a record of the animals killed by him on various hunts, the number of skins of certain animals he has possessed, or other personal data. (Neuman *Catalogue*, ASM)

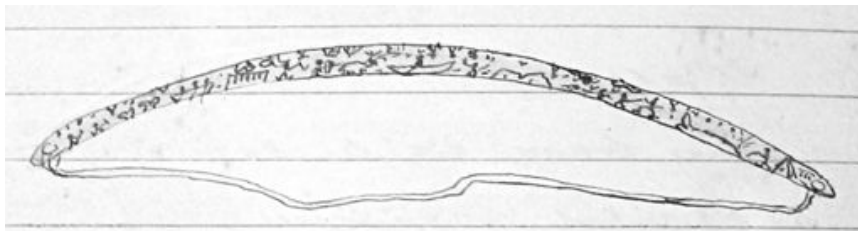


Fig. 382. Illustration of drill bow collected in Wales between 1910-1916 by Dr. Daniel Neuman and entered as “No. 1167” in his *Catalogue*. Alaska State Museum Accession Files, Neuman Collection.

Discrepancies between contemporary Native perspectives and ethnographic explanations of drill bow engravings represent a contrast between an insider’s point of view and an outsider’s perspective applied to another culture’s epistemology. Specifically, during community-based work, carvers self-identified with the imagery and pointed out particular objects or activities, relating them to their own experiences. In contrast, collectors at the turn of the twentieth century approached the drill bows as representations of ‘otherness’ and attempted explanations using prevalent anthropological theories and lines of reasoning. As seen in the following chapter, collecting paradigms of ethnographers greatly influenced the interpretation of drill bows within museum settings.

³³⁰ From Daniel Neuman’s *Catalogue*, 1910-1916, ASM, Neuman Accession Files. The illustrated drill bow does not correspond with any known objects in the Alaska State Museum suggesting it stayed with Neuman’s family or went to another buyer.

CHAPTER 10

RECONSTRUCTING THE ARCTIC WITH IVORY CARVERS AND DRILL BOWS ON DISPLAY

Upon their integration into museum collections, ivory drill bows became common signifiers of Arctic people. Many metropolitan natural history museums in North America acquired at least one drill bow and many bows continue to be exhibited today. Pictorial engraved drill bows have been lauded for their technological ingenuity while at the same time praised for their artistic complexity. For example, drill bows as implements have carried cachet as indigenous devices to demonstrate to interested viewers (Figs. 383-384). Upon the return of Adrian Jacobsen from the Seward Peninsula in 1883, Jacobsen (1977:119) unpacked a drill bow from the village of Kikertarok and comments, “After my return to Berlin, when I unpacked my collection, Mr. Woldt, the editor of the account of my journey, asked me to demonstrate this. I brought it to a bright fire from which the men present lit their cigars.” In contrast, engraved drill bows have evoked admiration for their formalist properties, as expressed by Walter James Hoffman (1897:751) who claims that in comparison to other Native pictographs, drill bow motifs are, “vastly superior, especially in faithful reproduction of animal forms and delicacy of artistic expression.” In a similar manner, institutional perspectives on drill bows have historically revolved around an art/artifact dichotomy with ensuing exhibit discourse often structured by a museum’s foundational philosophy (see Appendix K).³³¹

³³¹ For extended discussion on the art/artifact dilemma related to material culture see James Clifford, “On Collecting Art and Culture,” in *The Cultural Studies Reader*, Simon During (ed.) (London; New York: Routledge, 2007), 49-73.

The removal of cultural heritage from Alaska beginning in the eighteenth century laid the foundations for creating a socio-political and dialectical disconnect between museums and Bering Strait communities. Early methods of display abstracted Bering Strait artifacts through a juxtaposition of natural and artificial curiosities that eventually led to the development of classificatory exhibits based on socially hierarchical taxonomic systems. The era of modern anthropology sought to re-contextualize material culture through the use of staged life groups while formalists encouraged de-contextualization to encourage spiritual and aesthetic encounters with the art. As exemplified by these historical methods, modes of representation altered according to intellectual currents, political ideologies and national imperialism. In a current era striving towards post-modernity, museums must emancipate themselves from colonial authority by redressing representational stereotypes through multi-vocal collaborations with Bering Strait communities. A retelling of narratives related to cultural patrimony leads to an “insider’s point of view” (Ames 1992:54) and effects a repatriation of representation while supporting the existence of multiple knowledge systems within museum practice.



Fig. 383. Bernard Hubbard watching a bow drill demonstration by an Alaska Native carver probably from King Island or Wales. c. 1931. Courtesy Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, WA Photos 295, object id 2007421.



Fig. 384. “Demonstrating Fire Making with “Eskimo Strap Drill.” Frank Hamilton Cushing (left) and possibly John Wesley Powell, c.1890. National Anthropological Archives, Smithsonian Institution, NAA INV 04415100.

Cabinets of Curiosity

During the sixteenth through eighteenth centuries, European explorers collected multitudinous arrays of “curious” things to create micro-worlds within the constructs of their particular ways of knowing (Feest 1992; Shelton 1994). Cabinets intermixed flora and fauna to create displays with a focus on individual objects as glorious souvenirs or trophies from afar (Macdonald 2006:94). Hooper-Greenhill (1992:12) relates early methods of organization to Foucault’s Renaissance *episteme* noting cabinets offered an interpretative method based on resemblance. Knowledge was gained through discovering relationships of similitude between material things, oral narratives and symbols. The private or exclusive display of curiosity collections by wealthy individuals affected the organizational philosophies of the new public museums of the late eighteenth and early nineteenth centuries that sought to exude knowledge and control over the New World (Bennett 1995).

The drill bow collected by Captain James Cook in 1778 and subsequently displayed by the British Museum represents the first known engraved ivory drill bow to be publicly exhibited. The 1753 founding collections of the British Museum included world antiquities, ethnographic material, and natural history specimens divided into natural and artificial rarities displayed in the manner of curiosity cabinets. Following new acquisitions from Captain Cook’s Third Voyage, the museum adopted a broad geographical organization for antiquities and ethnography. By 1803, the British Museum had placed the drill bow amongst Cook’s ethnological collections in the Otaheite and South Sea Rooms which offered visitors a chance to see “the result of years of labour and

danger; a fund of information, supported by undoubted authenticity.”³³² In addition to Cook’s drill bow, the rooms presented a range of North American material in cases and on the walls including fur parkas, baskets, quivers, ladles, preserved edibles, paddles and carved bowls (King 1981:97).

Today, the British Museum’s *Enlightenment Gallery* recreates the eighteenth century age of exploration with its focus on gathering collections and increasing knowledge. The long gallery appears as a collector’s den with dark wooden cases along the walls and an interior space divided into seven broad themes illustrated with natural history specimens and ethnological objects (Fig. 385).³³³ Engraved ivory drill bow Am1982.09.1 appears next to a clog almanac and tally sticks in a case on “Ancient Scripts” seeking to decipher records of the past (Fig. 386). The label for the carving states “Inuit ivory bow-drill with pictograms. Pictograms are a form of recording and communicating basic information, used instead of actual writing.”³³⁴ The drill bow’s engraved scenes of pulling seals, ice fishing, and a sod house puffing smoke present a stark visual contrast to the nearby wooden records reinforcing a sense of wonder at this unique form of “communication.”

³³² From a description of the British Museum’s ethnological room written by Malcolm in 1803 (King 1981:97).

³³³ The themes reflect a loose chronology beginning with “The Natural World” followed by “The Birth of Archaeology, Art and Civilisation, Classifying the World, Ancient Scripts, Religion and Ritual, Trade and Discovery.” Unlike drill bow Am1982.09.1 discussed under “Ancient Scripts,” a nineteenth century pictorial engraved ivory arrow straightener is used to represent “Trade and Discovery” in “Case 21. The Americas.”

³³⁴ Drill bow Am1982.09.1 combines old pictorial motifs and Western imagery in a manner relating to the Nome engraving style, c. 1910.



Fig. 385. *The Enlightenment Gallery* in the British Museum. 2012.

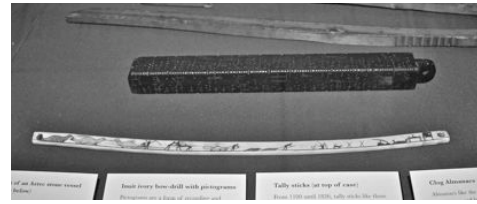


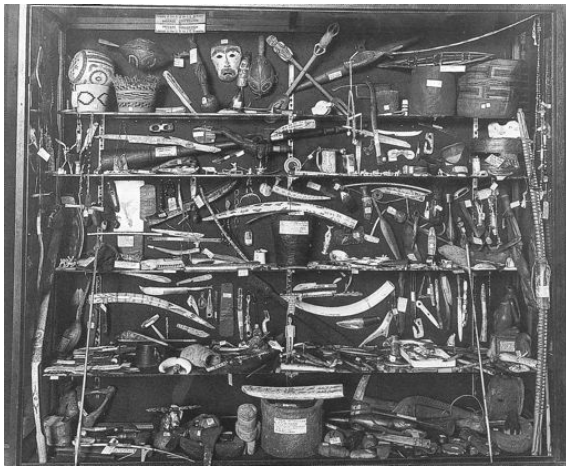
Fig. 386. Drill bow Am1982.09.1 on display as “Inuit ivory bow-drill with pictograms.” *Ancient Scripts, Case 17. Decipherment, The Enlightenment Gallery*, British Museum. 2012.

Amalgamations of natural and man-made objects formed the foundations of major European museums and eventually gained ground in American displays of Native American cultures. Exhibits of ethnographic material at World’s Fairs demonstrated a particular penchant for juxtaposing natural and artificial curiosities with visible attempts at linking indigenous peoples to the commodification of environmental resources (Rydell 1989). Inside the Alaska Building at the Alaska-Yukon-Pacific-Exposition in 1909, visitors could examine articles of Native craftsmanship loosely arranged according to region or object type.³³⁵

Joseph E. Standley exhibited over 1,200 Alaskan Native objects at the AYPE and two photographs of his display cases reveal material crowded onto shelves and hanging

³³⁵ The glass cases packed with Alaskan curios typically lacked contextual information and offered minimal educational value to fair-goers. However, AYPE visitors could observe several objects animated in a small area nestled amongst the displays where a few Native artisans demonstrated ivory carving, probably with the use of a bow drill, weaving baskets, sewing skins and metalsmithing. H. D. Kirmse of Skagway, Alaska managed the small space for Native demonstrations and probably sold completed articles (Duncan 2000:68). Ivory carvers inside the Alaska Building represent one of the earliest examples of carvers working as “artists-in-residence” surrounded by exhibit cases in a museum-like setting.

from the sides in cabinets of curiosity fashion (Fig. 387a-b).³³⁶ Mammoth tusks, a walrus skull and bowhead whale ear drum appear alongside ivory carvings enticing viewers to look closer at the transformation of natural material into engraved scenes on tusks, cribbage boards, pipes and drill bows. Standley exhibited at least three drill bows at the AYPE and one of these can be positively identified as drill bow NMAI 55598 sold to George Heye in 1916 (Fig. 388).³³⁷ Standley promoted engraved imagery as representations of “important happenings in their daily life” and described drill bow NMAI 55598 as “Ancient record drill bow covered all over with records. It is 16 inches long carved out of ivory tusk. Wonderful.”³³⁸



³³⁶ For extensive critical analysis of J. E. Standley’s involvement with the AYPE see Kate C. Duncan, *1001 Curious Things: Ye Olde Curiosity Shop and Native American Art*, (Seattle; London: University of Washington Press, 2000), 60-83.

³³⁷ George Heye purchased a substantial portion of J.E. Standley’s AYPE collection for \$5000 in 1916. The large acquisition helped fill the exhibit halls of Heye’s newly established Museum of the American Indian. For detailed discussion on Heye’s motivations for collecting Native American art see, Ann McMullen, “Reinventing George Heye: Nationalizing the Museum of the American Indian and Its Collections,” in *Contesting Knowledge: Museums and Indigenous Perspectives*, Susan Sleeper-Smith (ed.) (Lincoln: University of Nebraska Press, 2009), 65-105. Although NMAI records identify drill bow 55598 as deriving from Point Barrow, Standley’s 1916 purchase list does not include a provenience suggesting Heye or other museum staff added the location at a later date. NMAI Archives, Box 142, Folder 25, J. E. Standley Alaska Purchase Lists, 1916.

³³⁸ NMAI, J. E. Standley Alaska Purchase Lists.

Fig. 387a-b. One of J.E. Standley's display cases of Alaska Native objects at the Alaska-Yukon-Pacific Exposition in Seattle during 1909 (from Duncan 2000:67). Ivory drill bow NMAI 55598 is displayed on the third shelf.



Fig. 388. Engraved ivory drill bow with bearded sealskin strap displayed by Standley at the AYPE in 1909. NMAI 55598.

Early Anthropology Museums and the Natural History Approach

The formation of anthropology museums during the latter part of the nineteenth century contributed to the presentation of ethnological material using a classical *episteme* founded on order and an acquisition of knowledge through objective analysis and classification of physical traits (Hooper-Greenhill 1992:15). Museums offered exhibits of comparative displays with objects arranged in divisions and subsections as tables of knowledge that also reflected evolutionary ideologies of processual development (Ames 1992:51). Further, Bennett (1995:63) argues systematic organization of objects translated into an “exhibitionary complex” seeking cultural regulation of a nation’s citizenry. Focus shifted from the singularity of an object to grouped objects within a codified taxonomy (Kirshenblatt-Gimblett 1991:392). Ordering material by function also offered an efficient manner to deal with the hundreds of Native American objects pouring in from field collectors such as Edward Nelson in Alaska and Frank Hamilton Cushing in the Southwest (Fitzhugh and Kaplan 1982; Hinsley 1992).

The British Museum published *Handbook to the Ethnological Collections* in 1910 with an introduction to indigenous materials based on the Linnaean classification system.

An illustration on “Fire-making instruments” features an Arctic bow drill with engraved ivory bow Am1855.1126.225 alongside implements from Burma, Oceania and Borneo (Fig. 389). Accompanying discussion highlights both the mechanical function and artistic attributes of engraved carvings stating, “On these bow-drills and other utensils hunting and other scenes are often carved with great fidelity to nature” (British Museum 1910:253).

Following its opening to the public in 1920, the Alaska Historical Museum utilized a similar comparative theme within the micro-world of Alaskan Native artifacts.³³⁹ A photograph from the mid-twentieth century illustrates a cluttered case holding pottery, pipes and a top shelf reserved for ivory drill bows described as “fantastically engraved with hunting scenes dear to the Eskimo hunter.” (Keithahn 1946:9) (Fig. 390). Despite the visual complexity of engraved drill bow imagery, early anthropological exhibits such as those seen at the British Museum and Alaska Historical Museum presented drill bows as cultural artifacts grouped with other similar functioning implements.

Today, the Pitt Rivers Museum in Oxford simultaneously preserves and exhibits an early twentieth century culture that sought to study relationships between objects through the development of taxonomic exhibits. The Museum includes over a dozen engraved ivories with many acquired by Frederick Beechey and Edward Belcher organized according to material type, function and geographical origin (Petch 1996:8).

³³⁹ By the mid-1940s, the Alaska Historical Museum collections had expanded to the point where Juneau residents implemented a one percent sales tax to raise a new facility with subsequent ownership turned over to the State of Alaska. For historical information on the Alaska State Museum’s ivory collection, see Bette Hulbert, “Alaska State Museum,” in *Setting it Free: An Exhibition of Modern Alaskan Eskimo Ivory Carving*, Dinah Larsen and Terry Dickey (eds.) (Fairbanks, AK: University of Alaska Museum, 1982), 69-70.

The main Court presents several engraved drill bows in the “ivory case” while ivory drill bow PR 1969.34.9 appears in an exhibit on “Methods of Making Fire” (Fig. 391). The latter display consists of a long glass case comparing fire-making implements from around the world with the right section devoted to drill bows used in Egypt, Ceylon and “among the Eskimo.”³⁴⁰ The ordering of drill bows within “Methods of Making Fire” reveals a deliberate construction of what Foucault (2000:4) refers to as an “exterior history of truth” based on social relations of power. In other words, early taxonomic displays of drill bows often structured viewer inspection on reading or understanding the world through hierarchical series reinforcing notions of national superiority (Bennett 1995:79; Hooper-Greenhill 1992:15).

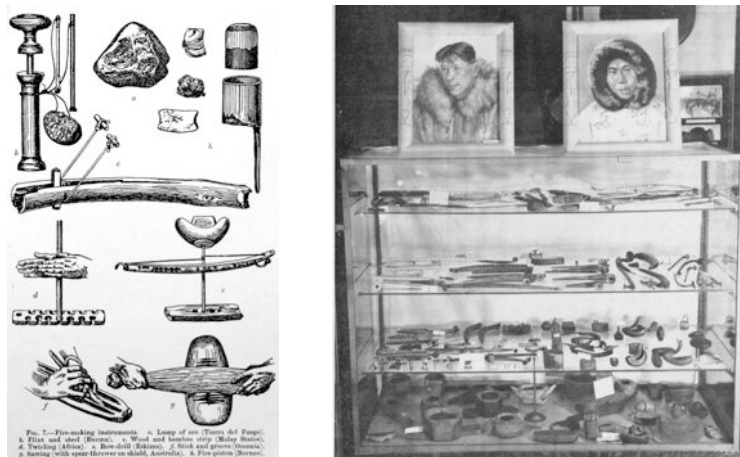


Fig. 389. Drill bow BM Am1855.1126.225 published (center-right) with other “Fire-making Instruments” from around the world (from British Museum 1910:15).

Fig. 390. “Eskimo Pipe Display and Crumrine Pastels,” Case No. 1, Alaska Historical Museum, Juneau. (from Keithahn 1946:8). The top shelf displays pictorial engraved ivory drill bows, including drill bow ASM II-A-8 (far right), along with wood drills and mouthpieces.

³⁴⁰ Exhibit text on “Fire Making by Friction” describes the “bow drill” as “Used in Ancient Egypt (see Beni Hasan pictures), modern Europe (ceremonially), Ceylon, Malay Peninsula, Mesopotamia, and among Eskimo.” Museum staff temporarily removed drill bow 1969.34.9 for examination by the author.



Fig. 391. “Methods of Making Fire” exhibit displaying engraved ivory drill bow PR 1969.34.9 in conjunction with other bow drills from around the world. Making Light and Fire, Ground Floor Court, Pitt Rivers Museum. 2012.

Modern Anthropology and Contextualism

Rather than displaying drill bows and other ethnological collections according to abstract classification methods, museum anthropologists such as Franz Boas argued for inclusion of distinct cultural traits in recreative displays that fabricated original settings or sites of discovery (Ames 1992:51; Kirshenblatt-Gimblett 1991:389). Thus, natural history museums shifted into a modern *episteme* that seeks knowledge through questioning the relationships of parts and an understanding of object characteristics as linked to functions (Hooper-Greenhill 1992:17).

Museums concerned with exhibiting their mastery of the world through representation of cultural groups required many objects to produce complete series and sent ethnographers and traders on collecting missions to round out installations (Macdonald 2006:87). The notion of “authentic” artifacts gained ground with Native artisans demonstrating a keen sense of marketing acumen describing objects for sale as old or singular (Phillips 1995:108). During the early twentieth century, Bering Sea ivory

carvers concurrently produced new carvings to look old as well as carved new forms of tourist objects such as engraved pipes and cribbage boards (Murdoch 1988:399).³⁴¹

Natural history museums tended to dismiss contemporary art in favor of pre-modern artifacts with resultant exhibits displaying what Clifford (1995:222) refers to as cultural authenticity combined with an “inventive present.”

One manner of reimagining a source community involved exhibiting a particular collector’s acquisitions as a single object or narrative. For example, during the late 1880s, the AMNH reserved one long case, two upright cases and part of a railing case, to present the entire 1,300 Alaska Native objects acquired by Lieut. George T. Emmons.³⁴² The AMNH commended Emmons for preparing a catalogue detailing the use of each object and praised the collection as “Many implements of stone and highly ornamented carvings on ivory are found in the series which is probably more complete and authentic than any similar collection.”³⁴³ Case designs for Emmons’ collection illustrates the material grouped according to themes including “Hunting and Fishing” with the use of reindeer parkas, fur boots, spears, a boat hook, dog and reindeer harness, a sealskin float and walrus lines (Fig. 392).³⁴⁴

³⁴¹ While in Point Barrow between 1881-83, John Murdoch (1988:399) describes collecting a carved bear figure of bone soaked in oil to make it appear old. Likewise, drill bow carvers carved new wood drills and hearths and sold them with old engraved bows to create traditional-looking sets, i.e. bow drill set Phoebe Hearst 2-1291.

³⁴² AMNH Anthropology Archives, Accession 1869-90-105, Annual Report of the Trustees for the Year 1888, p. 11.

³⁴³ Ibid. The cases might have displayed four engraved ivory drill bows acquired by Emmons but not officially accessioned into the museum until 1894: drill bows 0/62, 0/423, 0/498, E/632.

³⁴⁴ The drawing illustrates a mixture of traditional Iñupiat material culture such as harpoons and birds spears along with Siberian Yupik introductions such as reindeer harness.

Another mode of recreating the Arctic involved the construction of ethnographic life groups arranged according to Western socio-cultural constructs of family as seen in an “Arctic Region Life Group” created for the U.S. Government Display at the Pan-American Exposition in Buffalo, NY in 1901 (Fig. 393). William Henry Holmes created the Polar Eskimo group to visually excite and interest the viewer in learning about families from Smith Sound who dressed in fur parkas, drove dog sleds and speared seals (Fitzhugh 1997:209-10).³⁴⁵ Similarly, in 1940, Rainey outlined his ideas for assembling a cultural display at the AMNH using ethnological material from Point Hope:

For a full life-set exhibit I would suggest, A: Whaling equipment, including an umiak, an umiak sled, harpoons, floats, lances, the meat bucket, bird slings, paddles, the costumes of the whaling captain and his wife, and the work bag. This would make a remarkable exhibit if set against a background of the wind-break, the sea and the ice. B: Dance-house equipment, to be set against the background of the inside of a qaligi, including at least two costumes, drums, masks, a number of po-oks, which are wooden or ivory fetishes and mechanical models. This would be a very elaborate and colorful exhibit. The materials for both A and B were used up until 1900. Some of the material still survives, and some of it is dug from the houses abandoned since that time . . . If you want the material for sets A or B it would be necessary to wire me so that we would have time to put these in shape. The old-fashioned type of parkas have to be made specially. (Letter from Froelich Rainey to Clark Wissler, May 31, 1940, Records of the Rainey-Larsen Point Hope Expedition, 1939-1941, Box 1, Folder 1, AMNH Anthropology Archives)

³⁴⁵ Following the Buffalo Exposition in 1901, the Polar Eskimo life group moved to the U.S. National Museum where the Museum displayed slightly altered renditions of the group for almost a hundred years. For more on the creation of northern life groups and a detailed history of the Polar Eskimo display see, William W. Fitzhugh, “Ambassadors in Sealskins: Exhibiting Eskimos at the Smithsonian,” in *Exhibiting Dilemmas: Issues of Representation at the Smithsonian*, Amy Henderson and Adrienne L. Kaeppler (eds.) (Washington, D.C.: Smithsonian Institution Press, 1997), 206-245.

products and sell their wares (Rydell 1984:2). In a similar manner, traders set up displays advertizing their collections and contributed to furnishing living exhibits with an ensuing commodification of indigenous peoples.

World's Fairs set the stage for living exhibits by housing Native people in colonial pavilions of ritualized "vernacular architectural styles" (Benedict 1994:31). The pavilions represented a form of theater with a setting, props, performance and interpretation. One can visualize an Eskimo village with an igloo and dog sled accompanied by men ice fishing and a voice emanating from a snowy bank describing activities within the wondrous scene. Fair organizers tended to promote participants in living villages as ethnic stereotypes of primitiveness rather than individuals. However, Arctic villages appear to have carried a positive reputation with inhabitants who lived long lives characterized by resourcefulness (Benedict 1994:43). Displays of ivory carvings, both as contained objects in exhibit cases, and carving performances within living exhibits, proved popular attractions at World's Fairs.

Notice of the World's Columbian Exposition to be held in Chicago in 1893 garnered particular attention from Alaskan collectors Miner Bruce and Sheldon Jackson. In Teller, Bruce gathered together a number of sleds, dogs, kayaks, weapons, and tools and persuaded 11 Alaska Natives from Port Clarence to accompany him and his collection to Chicago (Fig. 395).³⁴⁶ Sheldon Jackson also assembled a collection and sent P. W. Putnam, Chairman of the Anthropology Department, five boxes with about 250

³⁴⁶ An irate Capt. Michael Healy wrote to Sheldon Jackson on July 30, 1893 exclaiming, "Had I been in Port Clarence when [Bruce] left there I never would have allowed him to take those natives away, and I hope someone will be thoughtful enough to make him file a bond for their keep while away and to return them to their homes. To have the reindeer project become the father of a Dime Museum is to me a cause of mortification." (reprinted in Ray 1992:223).

objects from Alaska and Siberia including a fire drill set, masks, pipes, dolls, knives, seal plugs, wooden boxes, skin stretchers, and fur socks.³⁴⁷

Following the close of the WCE, Bruce appears to have exhibited his Port Clarence collection in a gallery on Clark Street in downtown Chicago before approaching the Columbian Museum with an offer to purchase his collection of 382 objects for \$550.³⁴⁸ Franz Boas wrote to Columbian Museum Director F. J. V. Skiff petitioning the purchase due to its good condition and known provenience calling “particular attention to a series of valuable jade implements, a series of masks, dancing implements, engraved pipes, and baskets.”³⁴⁹ The Field Museum purchased Bruce’s collection in 1894 and combined it with a sizeable donation from E. E. Ayer consisting of four engraved ivory drill bows, ten engraved ivory pipes and additional Arctic material exhibited by vendors at the WCE (Fig. 394).³⁵⁰



Fig. 394. Engraved ivory drill bow exhibited at the Columbian Exposition in 1873. Acquired by E.E. Ayer. FM 13463.

While Bruce and Jackson supplied ethnological material for exhibit cases at the WCE, J. W. Skiles & Co. of Spokane, WA received the contract for overseeing

³⁴⁷ From “Collection of Specimens from Alaska & Siberia for Prof. F. W. Putnam by Sheldon Jackson, 1892.” Peabody Museum Archives, F. W. Putnam Papers, Box 9, Folder 9.2. The Field Museum purchased a large number of objects exhibited by Bruce and Jackson following the close of the WCE.

³⁴⁸ Letter from Franz Boas to F. J. V. Skiff, February 15, 1894, Columbian Museum of Chicago. Field Museum Anthropology Archives, Accession 1897.96.

³⁴⁹ Ibid.

³⁵⁰ Field Museum Anthropology Archives, Accession 112.

construction and maintenance of the “Eskimo Village and Labrador Trading Post” featuring log cabins in the manner of the Hudson’s Bay Company, a Moravian missionary chapel, Eskimo summer tents, and reindeer corrals for at least 50 Natives from Alaska, Labrador, Greenland and the Northeast Territory.³⁵¹ Exhibit designers placed animals both alive and stuffed amongst the structures including dogs, reindeer, birds, musk ox, moose, caribou and walrus. To enervate the assembled scene, Native participants were instructed to demonstrate such activities as “canoes upon the water, throwing of spears, methods pursued in hunting and fishing, wrestling and Eskimo games, the Moravian missionary service, driving of reindeer and of Eskimo dogs and sledges.”³⁵² Efforts to animate the village appear in a photograph of Natives from Labrador riding in a sled pulled by living dogs (Fig. 396). Native participants also demonstrated the manufacture of implements and clothing with Skiles & Co. allocated the right to exhibit and sell completed articles including "Native ornaments, carvings in ivory, spears, bows and arrows, canoes and sledges and native garments.”³⁵³

³⁵¹ From “J. W. Skiles & Co., of Spokane Washington, Contract. 9th March, 1892. Eskimo Village, Labrador Trading Post, and Right to Manufacture, Exhibit and Sell Native Articles,” 1892, p.3, Chicago, Chicago Legal News Company. Peabody Museum Archives, F. W. Putnam Papers, WCE, 1891-1895, Box 8, Folder 8.1 The International Anthropological Congress of The World’s Columbian Exposition included five sections overseen by various professors and curators of anthropology: physical anthropology (Franz Boas), archaeology (W. H. Holmes), ethnology (Otis T. Mason and Stewart Culin), folk-lore and religions (W. W. Newell and Cyrus Adler), and linguistics (D. G. Brinton). Peabody Museum Archives, F. W. Putnam Papers, WCE, Box 8, Folder 8.3

³⁵² Ibid., p.4.

³⁵³ Ibid., p. 2



Fig. 395. “Some of our Eskimo friends – Eskimos brought from Port Clarence to the United States by the Reindeer Commission, Bureau of Ethnology, 1894.” Library of Congress Prints and Photographs, LOT 11453-2.

Fig. 396. “Eskimo Exhibit” at the Chicago World’s Fair, 1893. Articles of Native manufacture brought a sense of authenticity to exhibits as seen here in the display of skin-covered tents, snowshoes, coiled grass baskets and dog sleds. National Anthropological Archives, Smithsonian Institution, NAA INV T13325.

The Eskimo Village at the WCE proved to be a well-attended attraction and additional villages soon followed. In 1894, the California Midwinter International Exposition in San Francisco presented an Eskimo Village with dome-shaped plaster igloos and a miniature pond for kayaking.³⁵⁴ Demonstrations of ivory carving at World’s Fairs produced popular curios and probably whiled away the time for carvers. A 1901 photograph from the Pan-American Exposition depicts a carver from Labrador using a small saw to cut an ivory tusk. Additional tools are kept nearby in a toolbox fashioned from a shipping crate (Fig. 397).³⁵⁵ The St. Louis World’s Fair in 1904 also assembled a

³⁵⁴ Illustrated in a photograph by I. W. Taber. UC Berkeley, Bancroft Library, BANC PIC 1976.029 – ffALB.

³⁵⁵ Thomas Edison made three short films of the Eskimo Village at the Pan-American Exposition including “Esquimaux Village,” “Esquimaux game of snap-the-whip,” and “Esquimaux leap-frog.” An Edison film company catalog describes the Eskimo Village films as depicting “a large number of Esquimaux clothed in their native costumes and seated on their sleds, which are drawn by spans of four Esquimaux dogs. They are engaged in a race and are to be seen running over the ice and snow at a high rate of speed. There is a

large Eskimo Village where Native participants mainly from Siberia and Labrador acted out spearing and skinning a stuffed polar bear and brown bear, hunting with a bow and arrow, traveling on snowshoes and riding in a sled pulled by a living bear cub.³⁵⁶ A photograph taken in the Eskimo Village at St. Louis illustrates a carver from Labrador working on a small ivory sled and smoking a pipe while next to him a skin-sewer works on a pair of boots (Fig. 398).³⁵⁷



Fig. 397. Photograph of an ivory carver and his family from Labrador in the Eskimo Village at the Pan-American Exposition, Buffalo, NY. Photograph by Frances Benjamin Johnston, 1901. Library of Congress Prints and Photographs, LC-USZ62-136000.

Fig. 398. A couple from Labrador carving an ivory sled and sewing boots in the Eskimo Village at the St. Louis World's Fair, 1904. Keystone-Mast Collection, UCR/California Museum of Photography, University of California at Riverside.

During the Alaska-Yukon-Pacific Exposition (AYPE) in 1909, Seattle promoted a mission to celebrate the industrial age of the future and develop economic possibilities

pond in the foreground of the picture on the shores of which the home stretch of the race takes place.” Library of Congress Motion Picture, Broadcasting and Recorded Sound Division Washington, D.C, LC 745-747.

³⁵⁶ As seen in exhibit photographs, organizers for the Eskimo Village at the St. Louis World's Fair in 1904 appear to have repurposed the hide tents and imitation ice from the Chicago World's Fair in 1893 and the plaster igloos from the California Midwinter Exposition in 1901.

³⁵⁷ The Labrador ivory carver and his family appear to be the same group who participated in the Pan-American Exposition three years earlier, see Fig. 397.

for the Pacific Rim (Rydell 1984). To strengthen the contrast between past and present technologies, the AYPE set up large displays of ethnological collections illustrating a primitive past. Outside the Alaska Building housing J. E. Standley's exhibits, the Paystreak beckoned with its living displays including an Eskimo Village where carvers made ivory billikens, performed dances, and offered visitors a chance to ride in a dog sled on wheels known as the "North Pole Express Train" (Duncan 2000:70).

Captain A. M. Baber of the North Star Trading Company brought six Siberian Yupik and Chukchi families from Cape Dehzev to demonstrate ivory carving, kayaking, dancing and singing at the AYPE (Rydell 1984:199).³⁵⁸ The group of 34 Siberian Natives stopped in Nome on their way to Seattle and a photograph depicts the families dressed mainly in summer clothing of lightweight cotton (Fig. 399). Upon their arrival at the Paystreak, the Siberian group donned more traditional fur clothing and joined a smaller group from Alaska and Labrador for a photograph at the entrance to the plaster-frosted Eskimo Village (Fig. 400).³⁵⁹ Seattle curio dealer J. E. Standley noted that Baber "had the Families in their Native Igloos (Tents) made of Walrus hides. Men, Women, Dogs, Babies and Making curios out of ivory tusks of walrus."³⁶⁰

³⁵⁸ See also "Siberians Come from Arctic for A.Y.P. Fair," *Seattle Post-Intelligencer*, November 1, 1908. For extended discussion on the role of the AYPE Eskimo Village promoting ideas of racial and material progress see, Robert Rydell, "Visions of Empire: International Expositions in Portland and Seattle, 1905-1909," 1983, *Pacific Historical Review* 52(1): 37-65.

³⁵⁹ The back of the photograph states, "In the Eskimo Village there are Eskimos from Siberia, Alaska and Labrador, and visitors have an opportunity to study the various tribes." Note the Siberian-style curved dog sled and alternate hitches.

³⁶⁰ Ye Olde Curiosity Shop Guest Book, p. 13 (reproduced in Duncan 2000:70).



Fig. 399. A group of Siberian Yupik men, women and children on their way to participate in the Alaska-Yukon-Pacific Exposition in Seattle. Photograph taken in Nome by Otto Daniel Goetze, 1908. Anchorage Museum at Rasmuson Center, AMRC-b01-41-135.

Fig. 400. Native groups from Siberia, Alaska and Labrador standing by the main entrance to the Eskimo Village on the Paystreak at the Alaska-Yukon-Pacific Exposition in Seattle. Photograph by Frank H. Nowell, 1909. University of Washington Library, Special Collections, PH Coll 777.

Following the appearance of the Port Clarence group at the Columbian Exposition in 1893, Miner Bruce took the eight Kinikmiut people originally from Wales to perform at Madison Square Garden in New York followed by the Bureau of Ethnology and the Smithsonian Institution in Washington, D.C. (Ray 1992:223).³⁶¹ A series of photographs from this trip illustrate members of the Port Clarence group on the National Mall in D.C. demonstrating the use of a drill bow, scraping a sealskin, and pushing a small curved sled (Fig. 401).³⁶² In a letter to Franz Boas, Bruce remarks that Otis Mason, Smithsonian curator of ethnology, took casts of all eight individuals and planned to exchange the casts

³⁶¹ Bruce adopted one of the young girls and left her and her twin sister to be educated until the age of 16 in the United States. Bruce escorted the remainder of the Port Clarence Natives back to Alaska by the summer of 1895 (Ray 1992:223).

³⁶² Field Museum, Anthropology Archives, Eskimo/Aleut Portfolio 3A, Neg. 115 Eskimo Woman Preparing a Hide, Neg. 116 Eskimo Woman [sic] with Bow Drill, Neg. 118 Alaskan Eskimo with Sled. Neg. 118 illustrates the gravel paths of the National Mall and the façade of the NMNH in the background confirming the location as Washington, D.C. The photographs were probably taken in March 1894 based on correspondence between Miner Bruce and Franz Boas, Field Museum, Anthropology Archives, Accession 1897.96.

with the Field Museum.³⁶³ It appears the Field Museum received the casts and created a life exhibit featuring a drill bow carver based on the photograph taken in Washington, D.C. (Fig. 402). The Field Museum opened the life exhibit “Eskimo Semi-Subterranean House” in 1982 which includes an ivory carver working a drill bow in front of a stone fire pit surrounded by a cup, adze, platter, bowl and a bentwood toolbox.³⁶⁴ The mannequin emulates the photographed carver’s pose and haircut, wears identical embroidered mukluks, and appears to hold the same bow drill set, which Bruce probably sold to the Field Museum upon his return to Chicago. The drill bow carver exhibit at the Field Museum represents a transformation of a live performance into an in-situ installation to produce a visual reconstruction of authenticity for museum audiences (Kirshenblatt-Gimblett 1991:388).



Fig. 401. An ivory carver from Wales demonstrating a bow drill on the National Mall in Washington, D.C. 1894. Field Museum, Anthropology Archives, Eskimo/Aleut Portfolio 3A, Neg. 1116.

³⁶³ Letter from Miner Bruce in Washington, D.C. to Franz Boas in Chicago, March 3, 1894. Field Museum, Anthropology Archives, Accession 1897.96.

³⁶⁴ Hall 10, Maritime Peoples of the Arctic and Northwest Coast, opened to the public in April 1982, Field Museum, Anthropology Archives, Hall 10 Exhibits Portfolio 57.

Fig. 402. “Eskimo Semi-Subterranean House.” A life group based on the drill bow carver photographed in Fig. 401. Case 11, Hall 10, Maritime Peoples of the Arctic and Northwest Coast, The Field Museum. Photograph taken in 2012.

Formalist Perspective: Ethnographic Specimens as Fine Art

Twentieth century anthropology exhibits tended to approach drill bows as implements of survival embedded within a larger context of Arctic culture. In contrast, the emergence of Bering Strait material as a collectible commodity resulted in museal displays of ivory drill bows as de-contextualized specimens of fine art (McClellan 2003:3). For example, a 1950s display case at the Peabody Museum of Archaeology and Ethnology illustrates an engraved ivory drill bow and other carving tools raised on plinths dramatically lit to display their formal properties (Fig. 403). Autonomously arranged within a neutral white cube, the objects invite visitors to escape the trials of modernity and experience a personal encounter with the works of art.

Westermann (2005:xii) defines art objects as made or found materials placed into social circulation with visual traits demanding an aesthetic response whether it be of beauty, awe or repulsion. Specific modes of displaying and discussing works of art contribute to ideologies of connoisseurship and a form of intellectual elitism or discursive power (Foucault 1977:200). A Smithsonian NMNH display titled “Alaskan Eskimo Art” attempts a reversal of the polarizing white cube by placing an engraved drill bow and other engraved ivories, masks, and figures against a dark background with the interdisciplinary description “Art flourishes among the Alaskan Eskimos despite the hardships of their daily lives.” (Fig. 404). Despite a cursory nod towards contextualism, the display underscores technical and aesthetic perfection with a carefully structured arrangement casting artful shadows.



Fig. 403. Engraved ivory drill bow (98-18-10/52140) on display with adzes and other carving implements in the “Tools and Ingenuity” case, Room 14, Peabody Museum. Photograph by David L. De Harport, 1954. Courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University, number 2004.24.21789.

Fig. 404. Exhibit “Alaskan Eskimo Art” at the Smithsonian National Museum of Natural History. Engraved ivory drill bow (E45020) appears on the right under the heading “Animate Engravings.” The NMNH removed the display in 2004. Smithsonian Museum Support Center, Anthropology Record Room, MNH024-002.

Altered perceptions of indigenous material as fine art often leads to an import on form over content, effecting exhibitionary negotiations within natural history museums. The North American Indian Hall at the Field Museum in Chicago offers a case in point as it presents both a both a forty-year old life-group with a drill bow carver inside a sod house (see Fig. 402) and engraved ivory drill bows suspended in glass cases as examples of Arctic artistry (Fig. 405). The art display derives from the Field Museum’s temporary exhibit *19th Century Alaskan Eskimo Art* that ran from December 1975 through July 1976. The exhibit drew from permanent collections acquired mainly in the 1890s from villages between Port Clarence and Point Barrow with a focus on men’s carvings made of ivory and wood including engraved ivory drill bows, pipes, cribbage boards, tusks, and wood masks.

As seen in exhibition photographs, drill bows and other objects hang suspended in dramatically lit glass cases over peaks of fabricated snow (Fig. 406). Large panels appear between cases and heighten the bold visual impact with blown up images of graphic art, portraits of Alaska Natives, and photographs of hunting and whaling. White panels provide text on themes from “Tools” to “20th Century Tourist Art” while information on individual objects is printed directly onto glass cases offering uninterrupted viewing. Exhibit components meld to create a sensory experience of high contrast, corresponding with the idea of carvers as aesthetes. Exhibit curator James VanStone (1975:4) reinforces concepts of displayed beauty explaining, “Although most Eskimo art was religious, some of the animal and bird sculptures in this exhibition were probably carved for no other purpose than to give pleasure to the carver, his friends, and relatives.”



Fig. 405. Pictorial engraved ivory drill bows (center) displayed along with engraved ivory bag handles, pipes and various implements. “Art” Case, Hall 10, Maritime Peoples of the Arctic and Northwest Coast, The Field Museum. 2012.

Fig. 406. Engraved ivory drill bows (left), pipes (center) and tusks (right) on display in the exhibition *19th Century Alaskan Eskimo Art*, 1975-76, Hall 26, The Field Museum, Chicago. Field Museum Anthropology Archives, Temporary Exhibits 472 C, Neg. 103580.

The transformation of *19th Century Alaskan Eskimo Art* into a permanent display in the Northwest Coast and Arctic Peoples Hall reveals a similar secession of contextual information to a visual dominance of spatially isolated objects that appear to float behind glass. The streamlined art exhibit creates a visual and dialectical counterpoint to the cluttered life exhibit with a carver working inside a dimly lit sod house. The inclusion of drill bows both within an art exhibit and life group reveal a late twentieth century dilemma arising from changing organizational methods related to the art/artifact museal dichotomy. Established as a traditional institution of natural history, the Field Museum simply added a separate “art” component rather than reworking engraved ivories into the existing exhibit framework. Ames (1992:53) maintains anthropology museums violate boundaries when they display indigenous objects as fine art giving rise to an agitated and disoriented public. Thus, a growing number of contemporary museums are demonstrating a compromise of disciplinary boundaries for a reorientation of objects according to multiple perspectives and indigenous epistemologies.

Insider’s Point of View

Attempts at cooperative museology may entail the reframing of past modes of Native representation through a rejection or amalgamation of one or more conventional exhibit strategies (e.g., Caro 2012; Clifford 2004; Townsend-Gault 2006). The reframing of objects according to multiple perspectives represents a postmodern *episteme* which encompasses the idea of integrating “knowledges” into an effective and inclusive history (Hooper-Greenhill 1992:21; Lindauer 2007:305) For example, the development of *Our Lives: Contemporary Life and Identities* at the Smithsonian National Museum of the American Indian involved the co-curatorial participation of eight native communities to

create an exhibit that draws on historical documentation, imagery depicting the performance of objects, stories illustrating spiritual beliefs, and collections as both communal identity and works of art (Chavez Lamar 2008). Louise Ravelli (2006:134) explains a “new style” of constructing exhibits focuses on values and themes rather than older methods of disciplinary driven content and display. Further, diversity of the American experience calls for community participation to present holistic exhibits and function as both educational and social institutions (Gaither 1992:3).

Living Our Cultures, Sharing Our Heritage: The First Peoples of Alaska opened in 2010 within the newly constructed Smithsonian Arctic Studies Center in the Anchorage Museum at Rasmuson Center and re-presents more than 600 Smithsonian objects from the perspectives of ten Alaska Native cultural groups.³⁶⁵ The 10,000-square-foot center features dark ceilings and floors with subtly lit objects in floor-to-ceiling glass cases. The central exhibit component consists of ten horizontal cases organized in a north to south distribution of the cultural landscape with ethnological objects set against backdrops of contemporary photographs on banners.

The Iñupiaq cultural display appears on the north side of the exhibit and includes items associated with hunting whale and seals, family life and ceremonial activities (Fig. 407). The display includes one engraved ivory drill bow (NMNH E260132) in conjunction with an adze and other articles associated with winter activities. Cases keep label text to a minimum and kiosks situated throughout the gallery offer additional information for visitors who can investigate objects including the Iñupiat bow drill by

³⁶⁵ For a critical review of Iñupiaq narratives integrated into the exhibitionary framework of *Living Our Cultures* see, Amy Chan, “Incorporating Quliaqtuavut (Our Stories): Bering Strait Voices in Recent Exhibitions,” *Museum Anthropology*, 36(2013): 18-32.

touching the screen to receive an overview on object use, read elders’ discussions, and rotate objects (Fig. 408). A 3-D sound installation on the west gallery wall transmits stories told in Native languages while other areas feature photographs and poetry that merge into multi-vocal discourse on community identity.



Fig. 407. The “Iñupiaq” cultural display in the exhibition, *Living Our Cultures, Sharing Our Heritage: The First Peoples of Alaska*. Smithsonian Arctic Studies Center in the Anchorage Museum at Rasmuson Center. Bow drill E260132 appears below the white parka. 2012.

Fig. 408. Bow drill “niuqtuun” with engraved ivory bow E260132 on the *Sharing Knowledge* website. Courtesy of the Smithsonian Institution.

Situated within downtown Anchorage, *Living Our Cultures* serves a primarily metropolitan museum audience. In contrast, the Iñupiat Heritage Center in Barrow functions as a community institution presenting local perspectives to outside visitors. Upon entering the double doors of *The People of Whaling* exhibit at the IHC, a visitor observes a display titled “We are Iñupiat: Modern Life” with a bow drill in the center of the case framed by a contemporary whaling crew jacket on the left and a Barrow High School basketball jersey on the right (Figs. 409-410). Panel text in “We are Iñupiat” expresses dialectical authority for Barrow residents and their exhibit on contemporary life narrated through local voices.

The large exhibit gallery features a vaulted ceiling, pale wood floors, and case structures in a corresponding light brown hue producing an overall airy and warm exhibit space. The exhibit utilizes twelve Iñupiat Values as a primary organizing principle with displays further grouped according to themes such as seasonal activities and physical and social aspects of hunting bowhead whales. Displays integrate ethnological collections with contemporary material culture and artwork discussed in Iñupiaq and English. The integration of historic and modern photographs also stresses continuity as does frequent use of the pronoun “we” to describe past and current events. The exhibit emphasizes an import of walrus to the community through discussion on walrus hunting, integration of local ivory carvings and oral narratives including *The Walrus and the Ptarmigan Story*.³⁶⁶

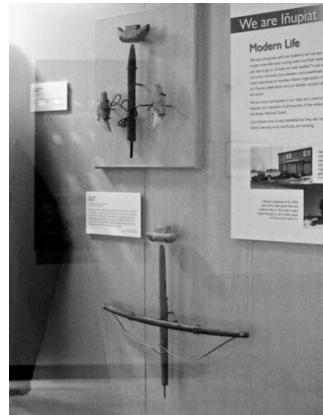


Fig. 409. Display “We are Iñupiat: Modern Life” in the exhibit *The People of Whaling* at the Iñupiat Heritage Center, Barrow, AK. 2012.

Fig. 410. Presentation of a bow drill and strap drill inside the display “We are Iñupiat: Modern Life.”

Both *Living Our Cultures* and *The People of Whaling* draw on Alaska Native voices for the interpretation of objects and discussion of cultural lifeways. While the beauty and craftsmanship of objects are highlighted, the myriad of Native voices

³⁶⁶ See Chapter 3 for a discussion of the Iñupiaq story involving walrus and ptarmigan.

challenge visitors to view the objects not as static works of art or historic artifacts but as emblems of vibrant, living cultures. The presentation of drill bows in these current exhibits also conveys a continued relevance of drill bows as objects of contemporary life and cultural patrimony. Overall, the two exhibits point toward a growing number of collaborations that are being informed by changing practices in anthropology and museum work including a move towards reciprocal models emphasizing shared resources and balanced authority.

CONCLUSION: COMMUNITY EXHIBITS AND RECIPROCAL DISCOURSE

This dissertation pursues an interdisciplinary approach to studying and discussing pictorial engraved drill bows from the Bering Strait. The project sought multivalent perspectives through a synthesis of material culture analysis, archaeological evidence, ethno-historical sources, community-based work and oral histories. The dissertation also supports the existence of multiple audiences including researchers, museum professionals and the Alaska Native men and women whose cultural heritage the project embodies.

Drills Bows as Instruments of Memory and Reconnection

Drill bows became ethnographic objects through a transformative process of “being defined, segmented, detached and carried away by ethnographers” (Kirshenblatt-Gimblett 1991:387). Nineteenth century northern field ethnographers including Edward Nelson and John Murdoch collected both material objects and oral narratives as things but the two suffered a disconnect upon entering the new social setting of the museum (e.g., Cruikshank 1992; Svensson 2008). As seen during community-based work, a “visual repatriation” of engraved drill bows carries the potential to evoke oral histories, songs and performance (Clifford 1991; Fienup-Riordan 1996).

During 2010-2012 community work in northwest Alaska, engraved drill bows functioned as visual aids to prompt stories of hunting in the old days using skin boats, harpooning walrus, spearing polar bears and dragging seals. Motifs of shamans and dancing provoked discussions about changes to these practices instigated by outsiders. Dancing imagery also inspired narratives about dancing in the qagri and stirred two community participants to perform parts of songs. Drill bow imagery of sailing ships and paddle steamers recalled stories about the U.S. Revenue Cutter *Bear* bringing supplies to

King Island, whalers introducing whiskey in Point Hope, and paddle steamers calling at St. Michael.

Re-circulation of drill bow imagery also visualized connections between the past and present demonstrating potential to reinforce both artistic and ethnic identities (i.e. Brumfiel 2003). As seen in the Introduction, Jerome Saclamana became inspired to emulate the old style of pictorial engraving and carved an ivory knife with dancers based on drill bow NMNH E48522. Likewise, Henry Koonook (April 2010) thought he might try engraving his own drill bow and Joe Akaran (April 2012) studied drill bow imagery with an eye to incorporating some of the motifs into his own ivory carvings. Brian Sockpick (April 2012) compared some of the engravings to the style of his father Teddy Sockpick and Enoch Evak (March 2012) drew similarities between engraving on drill bows and his practice of etching imagery on baleen.

Contemporary carvers spoke of drill bows as a visible, traditional tool of their heritage. Several carvers discussed using drill bows in the past, including James Omiak who used a drill bow his entire career, while other carvers including Henry Koonook and Jon Ipalook continue to use drill bows for various projects. Iplalook (April 2012:10) explains the import of carving as a form of cultural tradition, “I was raised around a lot of the artists from Point Hope and here in Kotzebue, whenever they traveled back and forth. And then I dabbled with it a little bit between different professions. But I ultimately came back to it because it’s just a way of life for us. I find it the most interesting.”

To many carvers, drill bows are tied to memories of their grandfathers, fathers, or uncles carving ivory. Participants such as Wilfred Anowlic (March 2013) shared stories about older carvers using drill bows in the qagri or under skin boats on the beach and

drilling holes for ivory beads, cribbage boards, and eyes for polar bears and seals.

Likewise, several carvers relayed the importance of an old drill bow, drill or mouthpiece passed down to them by a family member.

Increased awareness of material culture in museums also carries the ability to revitalize the creation and use of traditional objects (i.e. Eaton 2009). In March 2012, Jon Ipalook attended a presentation on this drill bow project at the Northwest Arctic Heritage Center in Kotzebue and became inspired to create his second bow drill. Ipalook (April 2012) subsequently carved a three-piece bow drill and demonstrated its use in the Sulianich Art Gallery. The drill bow derives from mineralized bone and features an inlaid ivory seal, *natchiq*, representing Ipalook's Iñupiaq name (Fig. 411). The drill bow also includes an inlaid strip of baleen along the lower edge which rises on the ends to form the sign "LL" in representation of Ipalook's biological connection to the Lane family and their whaling crew of Point Hope. The wide drill bow strap of bearded sealskin derives from the soles of a pair of old mukluks.

Ipalook carved a small drill from cottonwood and fitted it with a beveled jade bit. The mouthpiece is also carved from wood and covered with a strip of baleen decorated with ivory circles in one of Ipalook's signature inlay patterns. The mouthpiece includes a drilled hole threaded with a narrow strap of bearded sealskin. Wearing the mouthpiece on a strap offers a convenient means to stop and continue drill use while also keeping the mouthpiece clean. Many mouthpieces in museum collections include lash holes for straps but Ipalook created the first mouthpiece strap I have seen.

Ipalook constructed the bow drill in his home carving workshop and afterward brought it to the Sulianich Art Gallery so he and I could both videotape the drill bow in

motion. Three younger carvers gathered around Ipalook as he propelled the drill bow in both horizontal and vertical positions and quickly produced a series of small symmetrical holes on a piece of old ivory used as a hearth (Figs. 412-413). Following the demonstration, Ipalook (April 2012:10) explained, “That’s the basic tool and that’s the way they were used in the past.” Ipalook gifted his drill bow to this project for others to learn about traditional carving tools and their formative role in heritage preservation and performance (Fig. 414).³⁶⁷



Fig. 411. Drill bow, mouthpiece, drill and hearth by Jon Ipalook. Kotzebue, AK. 2012.



Fig. 412. Jon Ipalook demonstrating his bow drill while Levi Angutiqjuaq observes.



Fig. 413. Jon Ipalook points out symmetrical holes made with his bow drill.



Fig. 414. Jon Ipalook and the author with his newly made bow drill.

³⁶⁷ James Clifford (2004:15) describes cultural revitalization and performance as “a complex process of continuity through transformation, involves articulation (cultural and political alliance), performance (forms of display for different “publics”), and translation (partial communication and dialogue across cultural and generational divides).”

Contemporary Engravings and Negotiating Narratives of Culture and Place

Pictorial engraved drill bows in museum collections reveal cultural ontologies held by nineteenth century Bering Strait communities. The imagery expresses ways of understanding spiritual phenomena, relationships with the environment, and socio-cultural organization. Growing demand for ivory carvings during the late nineteenth century propitiated the development of a tourist market and altered the content of engraved narratives to produce repetitive messages (Ray 1977). As seen in Chapter Eight, ivory engravers adopted particular canons of motifs that when applied to objects, regardless of form or function, signified Arctic art. In other words, ivory engravers altered their modes of self-representation to meet the desires of mass audiences and consumers.

Christopher Steiner (1999:100) compares tourist art to forms of language that develop “as a result of transcultural encounter under colonial rule.” For example, early incorporation of English into Bering Strait languages created a form of simplified discourse relying on words such as tobacco, beads, and gunpowder that Western explorers and traders recognized (Beechey 1968; Kotzebue 1967). In a similar manner, engraved ivory carvings for the tourist market rely on a similar repetition and redundancy to communicate a standardized message of Arctic or “Eskimo” culture.

Similar to other Native American artists, contemporary ivory carvers and engravers negotiate between individual expression and expected conventions of content, form and style (e.g. Caro 2011; Graburn 1999; Lippard 2006).³⁶⁸ However, while etched motifs might fall within a standardized category of Arctic imagery some scenes continue

³⁶⁸ See further discussion by contemporary carvers on creating art for the tourist market in Chapter 9.

to relate to personal experiences and narratives. In other words, contemporary carvers may demonstrate success in creating material for an outside market while at the same time strengthening self-identification as Inupiat artists.

Sitting inside the lobby of the AC Value Center in Barrow, retired whaler Earl Aiken (May 2012) etches jam-packed scenes of Arctic life onto plates of baleen (Fig. 415). Aiken started etching baleen about twelve years ago using a few simple tools including a metal scribe and finger guards (Fig. 416). He draws from a specific canon of imagery including a single large snow goose, polar bear, and walrus in addition to bow hunters shooting caribou, an umiaq crew harpooning a bowhead whale, and a village scene with an igloo, umiaq on a rack and a long dog sled underneath. Many baleen etchings include motifs aligned along one or more baselines creating a visual resemblance to the construction of engraved drill bow scenes. Aiken (May 2012:1-2) readily describes the action represented within his etchings:

I have etches, scenes of whaling. I have caribou hunters . . . I've been etching a long time. . . . Here's another story of whaling today in 2012. There's still whale in Barrow and they could have a successful whaling feast. This one's lonely. He lives alone and tries to catch a seal. As well as this guy. But he brings up a boat whenever it comes in, the ice comes in. If he's hunting real good. Other caribous, polar bears, seal. And he [musher] takes them home to Barrow. Eskimo catches a seal . . . I would like to talk about more Eskimo stories. They mostly use skin boat, bearded sealskin. And they usually use high-powered rifles nowadays, to catch the polar bear. High-powered rifles for catching caribou . . . I like the seal hunter. He's alone and he's always catching seals and taking seals home . . . He's built in, stand up position of Eskimo man, they have a built in stander. Sealskin, caribou meat and seal meat in there [the sled]. They'll pile them up, this musher, and deliver them to Barrow. These are mostly used in winter and it's mostly got sun in the winter . . . I'm starting with a land . . . This is a landscape, this whole area. Now the next thing, you make a line, so you can see what I'm doing with this line. It's going to start saying 'Land Of The Midnight Sun.'

Required to learn English as a young boy, Aiken continues to speak Iñupiaq outside of selling his work and interacting with tourists. A synthesis of visual and textual knowledge systems can be seen in his baleen pieces that often include written descriptions or short narratives etched below his rows of Arctic imagery.



Fig. 415. Earl Aiken with his baleen etchings in Barrow, AK. 2012.



Fig. 416. Earl Aiken etching his name on baleen in Barrow, AK. 2012.

During a sun-dappled afternoon in Shishmaref, carver Gary Sockpick (June 2012) leaned over a vise on his front porch and shared family stories of hunting and carving. Sockpick comes from a long line of ivory engravers and bone carvers.³⁶⁹ His grandfather Teddy Sockpick worked in a transitional form of old style pictorial imagery and engraved an ivory drill bow with images of a polar bear, caribou and umiaq along with scenes of seal hunting and ice fishing (Fig. 417). Sockpick started carving in 1979 when his family moved to Shishmaref from Nome and it now provides a main source of income that assists in the expenses of daily living as well as boat fuel and supplies for hunting bearded seal and walrus. Sockpick sells most of his carvings to local dealers and works

³⁶⁹ The current Sockpick family of bone and ivory carvers includes Brian Sockpick (Nome), his brother Davis Sockpick (Shishmaref), and Davis' sons Gary and Roy Sockpick (Shishmaref). Gary Sockpick's son Brandon carves, as does Roy Sockpick's oldest son Bert (both in Shishmaref).

with them to determine which styles of etching and carving sell the best, noting etched caribou earrings represent one of his most popular carvings.



Fig. 417. Ivory drill bow engraved by Teddy Sockpick. ASM II-A-6577.

While in Shishmaref, Sockpick demonstrated his process of turning an unworked section of walrus ivory into a polished and etched carving. Sockpick began by using a vise to secure a portion of tusk about six inches long. The tusk derived from a larger piece purchased from a young man in Shishmaref who searches for whalebone and ivory to sell to local carvers. Using a handsaw, Sockpick cut off a horizontal slice of the tusk to create a flat surface while attempting to miss the mottled dentine in the center (Fig. 418a). Next, he wrapped a strip of sandpaper around a long metal file and began the arduous process of sanding the ivory across the grain (Fig. 418b). Sockpick went through five different grits of sandpaper starting with 60 and working his way to an ultrafine 400-grit. John Reed, the youngest member of the family, often helps his father Gary and older brother Brandon by sanding their ivory and bone carvings, which Sockpick explains saves them a lot of time. Following the use of sandpaper, an electric buffer removed the last of the ivory dust and produced a highly polished surface.



Fig. 418a-b. Gary Sockpick carving ivory in Shishmaref, AK. 2012.
a. sawing tusk to create a flat surface. b. sanding ivory while secured in a vise.

Almost three-fourths of the time involved in creating the engraved piece included preparing the ivory canvas. Most of the shaping and smoothing of ivory occurred outside on the porch in a carving spot Sockpick shares with his son Brandon. The carving spot faces the sea and affords opportunity to scan the horizon and determine hunting conditions. Several times during our visit, Sockpick paused and lifted his eyes to the shifting ice with ensuing observations merging into stories about spring and summer hunts of geese, walrus and polar bears.

After carving, Sockpick moved his work inside to a small table set with etching supplies (Fig. 419a). Using a pencil, he drew the outlines of motifs commenting he sometimes etches without drawing but the outlines assist in keeping motifs in proportion. Sockpick used a metal scribe to etch the imagery and recalled making a favorite etcher to fit his hand from an old file at the local Friendship Center. Describing his etching process, Sockpick (June 2012:4) explains, “Once I get started etching, it won’t take me that long . . . Because etching is just like drawing on paper with a tool . . . And the darker I want it, the harder I press.” Sockpick typically etches his motif outlines first and then fills in the centers and adds details. After etching he turned the ivory into the light to

examine his work, then dipped a cotton swab into black India ink, and rubbed it over the incised lines. A clean cotton swab removed extra ink followed by a final buffing to make the surface shine (Fig. 419b).



Fig. 419a-b. Gary Sockpick engraving on ivory in Shishmaref, AK. 2012.
a. applying India ink to etchings. b. wiping off extra ink.

The ivory tusk etched by Sockpick illustrates a polar bear on the ice confronting two adult walrus with a bearded seal in the background and migrating birds flying over the mountains (Fig. 420). Sockpick describes the scene simply as “springtime.” The etched scene visualizes the local landscape as seen from the west side of Sarichef Island (Fig. 421). Drawn from memory, the animal imagery stands as a representational symbol of past hunting experiences and accompanying narratives. For example, Sockpick (June 2012:7-8) shares a related story involving polar bears and walrus:

Dad got a couple of them, nighttime [polar] bears, try to steal; my dad used to have a dog team and a storage of seals for their dogs and they always used to go pick on those nighttime. Skin a few of those bears though. He showed me how to skin them. I never did get one though. Couple of chances. One time we were walrus hunting we bumped into this real big male, in the open water. When I first saw it, I saw it a long ways, I thought it was a walrus, so I tried to scare it down and I almost hit it with a 22 magnum, and it didn't go down. I got the binoculars and look, holy cow, that's a polar bear so we went to it. We all looked for maybe four and a half hours, just following; they swim, climb on ice, run for a while and then dive under ice, so we follow it for a while. Calvin was real small then. Dad said we were too far from home to get it. Could have just skinned it out there and

take it home. It was a nice size one though. I think it was in July, when we were trying to look for walrus, in Kotzebue Sound.



Fig. 420. Ivory carving with engraved polar bear and walrus by Gary Sockpick. Shismaref, AK. 2012.



Fig. 421. Looking west across the shifting ice in Shismaref, AK. 2012.

As expressed by Aiken and Sockpick, personal interactions with the Arctic landscape provide continued inspiration for engraved imagery. In this manner, pictorial engravings represents a mediated process from the tradition of etching narratives on nineteenth century drill bows for internal use to the contemporary practice of visualizing the Arctic environment on ivory for sale. This transformation also reveals Bering Strait artistic culture is not static but changing and reflective of an indigenous art history. Sally Price (2006:169) argues indigenous art history incorporates, “the presence of stylistic and technical change, recognized individual creativity, and communal attention to chronological development.” In other words, while Iñupiat art history does not include the Western rhetoric of historical discourse, it does include similar levels of analyses such as awareness of specific artists’ work and knowledge about historical carving traditions impacting creative processes of carving today.

Keepers of the Tradition

During community work in Alaska, a number of carvers showed me personal collections of Native artifacts, local artwork, and old family photographs. Carvers pointed out pieces describing how objects came into their collections, ways villagers used the objects in the past, and stories about older relatives carving or using similar implements. My hosts served as community curators or what Rowena Stewart refers to as “keepers of the tradition” in which community members contribute personal items to exhibits, serve as interpreters of objects and photos, share their knowledge with others, and may serve as docents or guides to an exhibition (Gaither 1992:61). In addition to establishing agency and self-representation, cultural keepers create an important dialectical link between communities, researchers and museums (i.e. Fienup-Riordan 1996).

Rather than place local artifacts and materials into a state of commoditization, keepers care for, display, and interpret the items as representations of family identity and cultural heritage. For example, over the years Henry Koonook (April 2010) has discovered several bone and ivory artifacts from the Ipiutak and Tigara sites that he prominently displays on his windowsill. Koonook described the various artifacts during a visit to his home and gifted me with a scraper he believed to be a woman’s tool. In Kotzebue, Ross Schaeffer Sr. (April 2012) and his wife Millie keep a glass display case in their living room filled with both local artwork and artifacts. A few of the articles exhibited include a carved ivory polar bear by the Schaeffer’s son, a blunt ivory arrowhead for hunting birds, and an incised harpoon head found close to the family’s summer campsite.

Keepers may also choose to not “accession” some material and place it into a commodity sphere while also deciding to retain other objects and accession them into their collections. To illustrate, during the summer, Edwin Weyiouanna (June 2012) and other residents of Shishmaref head to the old site at the sound end of Sarichef Island. Here local diggers unearth ivory and bone implements, baleen containers, and figural carvings from past generations. Weyiouanna has uncovered a sizeable number of artifacts over the years with several pieces sold to the local school and others retained for his personal collection. During a visit, Weyiouanna brought out a plastic bag filled with his finds and described uses for the various objects. The stories Weyiouanna (June 2012:1-3) shared about his artifact collection reflect a sense of identity as both an Iñupiat and a carver:

They made a lot of tools either of ivory or with the wood or utilize the horn. This was part of a handle for their tool. This one was another tool that they used, they got a piece of metal here [on the end] and they used it as a scraper. You can tell where they hold it, [where] their fingers were. This was another tool; this was their needle. They’ve got a piece of metal in there for poking a hole in their skin, made out of wood, for their sewing. That’s why it’s split right here, see the split, because they tie Eskimo string over it, sinew . . . Some of these, their tools and their ivory, they all got a mark on them. We find once in a great while, those Eskimo combs, made out of ivory or reindeer antler . . . Sometimes when they bury the artifacts, they’ll be all in one spot.

At home in Barrow, Gilford Mongoyak (May 2012) also displays a collection of ivory, bone and flint artifacts discovered from old sites or purchased from Native residents. Mongoyak explains he started purchasing pieces as locals were selling artifacts to non-Natives and the Iñupiat Heritage Center (IHC) did not step in to buy objects and keep them in the community. The collection includes an old ivory drill bow with a sinew strap, a triangular wood mouthpiece, and a short chubby drill with an iron nail tip (Fig.

422). Despite the lack of labels or exhibit text, the bow drill set and the rest of Mongoyak's artifacts carry contemporary stories describing their acquisition as well as ideas on how past generations made and used the objects. Collections at the IHC serve as a reference point for understanding and interpreting his collection. For example, Mongoyak pointed out a large harpoon head with vertical markings he thought past hunters used for bowhead whale and compared it to similar harpoon heads displayed at the Heritage Center.

During a visit to Point Hope, Steve Oomittuk (April 2010) opened a large box and began to arrange ivory, bone, flint and jade implements across his table (Fig. 423). The majority of artifacts derive from the eroding ancient Ipiutak site where community members find hunting implements and household articles washed out after a storm or along the beach sticking up in the sand. Oomittuk has carefully studied each implement in his collection noting use wear, burn marks, carvings-in-progress, morphological traits, range of materials and object use. Oomittuk (April 2010:1-3) uses his artifacts to tell stories about the past such as harpooning and cutting up bowhead whale:

These are ivory; these are shafts for a harpoon. Then this would go into the wood. Then when you harpoon an animal, this part comes off. And when you pull on the line, this hits and it turns sideways and it can't come out of there. We have to cut it out. This stays in a whale. This one is longer and they usually have a hole, a hole for the line. Then it stays in the harpoon. It's loose and then it tightens . . . That's a meat hook, for whale. And it had prongs because the meat, or *inutuk*, of whale, is real tender. And they hook and drag it away. They have these in their boat. Their skin boat. They have their knives and their *unaaqs* [harpoons] and their *niksiks*, hooks, for cutting up a whale.

Following the excavations of Ipiutak by Helge Larsen and Froelich Rainey between 1939-41, Point Hope's ancient history and rich culture has been the subject of numerous projects and publications (e.g., Bahnson 2008; Larsen and Rainey 1948; Mason

1998). Oomittuk is well versed in the literature about Point Hope as well as the range of material uncovered from archaeological investigations. He also possesses in-depth knowledge about the historical landscape and often serves as a guide to visiting anthropologists and other researchers. Oomittuk (April 2010:9) uses his artifact collection to share the history of the Tikigaq people with both outsiders and the younger generation of Point Hope explaining:

I've always enjoyed talking to people about the way of life. I got a chance to see part of it when I was growing up. I've done tours of Old Town site, Jabbertown, the history and culture. I go into the schools. I bring my artifacts. I give them tours of Old Town site. We take a bus and go to Old Town site, twenty or thirty students, and talk about the history of it, when they lived there, how things were. We do a hands on thing with artifacts. And they didn't realize there were six hundred sod houses right over here.³⁷⁰

Despite the absence of a formalized institution, Steve Oomittuk functions as a community curator, engaging in self-interpretation of Point Hope's cultural history and subsistence practices. Within museum settings, working with community curators is integral to the construction of Native voice in galleries and exhibits (i.e. Camarena and Morales 2006). For example, the development of Native voice in the *Our Lives* gallery at the National Museum of the American Indian involved a process in which community curators selected objects, suggested design layouts, and discussed life experiences turned into text for the exhibit (Shannon 2009:222-23). Assisting with *Our Lives* development, Cynthia Chavez Lamar (2008:149) describes community curating as a team endeavor in which "most groups worked toward achieving a balance between history, cultural traditions and pride." Organizers for the *Living Our Cultures* exhibit at the Anchorage Museum pursued

³⁷⁰ Several years ago, Oomittuk (April 2010) even used his collection as a traveling exhibit and sent the artifacts with his brother to Oregon where a museum displayed the collection for about a year. Oomittuk proudly retains the object identification numbers the museum used in creating the display.

a similar process involving Alaska Native elders and advisers as co-curators who selected and discussed objects in addition to providing oral and written content integrated into a multi-vocal exhibitionary framework (Crowell et. al. 2010:293). As seen in Northwest Alaska, Native keepers already possess skills and knowledge for interpreting and discussing their material culture. Involving community keepers in the construction of museum exhibitions increases an institution’s potential to integrate multiple perspectives into a range of modalities, promote community values, and offer new ways of understanding (i.e. Hein 1955; Hooper-Greenhill 2006).



Fig. 422. Ivory, bone and stone tools and artifacts collected over the years by Gilford Mongoyak. A drill bow, mouthpiece, and drill are displayed in the back. Barrow, AK. 2012.

Fig. 423. Steve Oomittuk sharing a whaling story. The table holds part of his collection of artifacts from Tigara and Ipiutak as well as a current mask-in-progress. Point Hope, AK. 2010.

Community Exhibits and Drill Bows on Display

Community exhibits carry potential to tell local stories to outside visitors. Richard Hill Sr. (2006:17) describes a tribal exhibition as a “communicative act that must be animated and memorable, just like the storytelling of the past.” As discussed in Chapter 10, *The People of Whaling* exhibit at the Iñupiat Heritage Center in Barrow utilizes local

stories to frame explanations of objects and discussions of community activities. The exhibit presents a drill bow neither as anthropological implement or artistic object but as a signifier for carrying past traditions into contemporary life. Exhibits linking the past with the present offer one strategy for helping communities adjust to change while supporting future needs and growth (Fuller 1992:328). Likewise, the presentation of contemporary material from an indigenous standpoint offers visitors a chance to hear divergent histories and new narratives about transcultural objects (Rassool 2006).

The Northwest Arctic Heritage Center (NAHC) in Kotzebue carries multiple roles as research laboratory, museum and community center. The main exhibit gallery focuses on the flora and fauna of Northwest Alaska as well as cultural lifeways representing the region's Iñupiat peoples. A wall display titled "The Iñupiaq Way" presents information in both English and Iñupiaq with shadow boxes holding mukluks, carving tools and ivory and whalebone carvings set against a map of Alaska (Fig. 424). The shadow box with traditional carving tools includes a caribou antler drill bow, wood drill and wood mouthpiece with ivory socket next to an adze and fishing stick (Fig. 425). The isolated presentation of carving tools suggests an artistic emphasis on form but surrounding quotes from Iñupiat contributors frame the drill bow as visualizing a cultural tradition. Drill bow use does not typically occur inside the NAHC but following presentation of this project, carver Levi Angutiqjuaq borrowed my model bow drill and set the tool quickly in motion creating a stark contrast to the static drill bow inside the glass box.



Fig. 424. Wall exhibit titled “The Iñupiaq Way.” Northwest Arctic Heritage Center, Kotzebue, AK. 2010.



Fig. 425. Antler drill bow, drill and mouthpiece next to an adze and fishing stick in the exhibit “The Iñupiaq Way.” Kotzebue, AK. 2010.

Drill bows appear in various locations around the city of Nome. The Nome Eskimo Community building presents a drill bow and several drills inside two display cases with other engraved ivories and local artwork. The two cases can be found inside the large recreational room framed by the discourse of community member activities. In the Carrie McLain Memorial Museum, museum director Laura Samuelson brought out an ivory drill bow with Nome style engraving for the public presentation of this project in 2012. The Museum’s drill bow forms part of a larger discussion on engraved ivory carvings made for the Nome tourist market.

Across the street from the Museum in Nome, one can enter the Sitnasuak building where a long wall display case in the lobby features ivory carvings made primarily by King Islanders from about 1940-80 (Fig. 426). The Sitnasuak display includes an ivory drill bow along with a wood drill and mouthpiece made by Mike Saclamana, father of contemporary carver Jerome Saclamana (Fig. 427). Thus, the displayed bow drill and other carvings represent family patrimony as well as a visual identifier of the King Island

Native community. While visiting at Sitnasuak, Jerome Saclamana (April 2012) also took on the role of a community curator, pointing out the work of specific carvers, commenting in admiration on a particular etching or a certain way a carver formed the legs of a bear. As seen by these examples, community exhibits in Barrow, Kotzebue and Nome demonstrate varying approaches to displaying drill bows but all share a focus on connecting local residents across generations.



Fig. 426. Exhibit of local Alaska Native artwork and artifacts on display inside the Sitnasuak Native Corporation. Nome, AK. 2012.



Fig. 427. Ivory drill bow and drill (bottom) with mouthpiece (top right) made by Mike Saclamana of King Island on display inside the Sitnasuak Native Corporation. Nome, AK. 2012.

Bridging Collections and Communities

A growing presence of Alaska Native tribal museums and heritage centers has led to increased community vitality and a resurgence of Native art, dance and language (e.g., Clifford 1991; Daniels 2009; Steffian 2006). Likewise, cross-cultural collaborations between majority museums and Native communities have been integral to developing new ways of thinking about and discussing Alaska Native material culture and lifeways (e.g., Crowell et. al. 2010; Fienup-Riordan 2007). Stephen Weil (1997) refers to

collaborative projects as the “new museology” in which community members come to a museum and dictate what objects they want presented and how they want them explained. For example, in 2008 a group of five Iñupiat heritage advisors traveled to the British Museum, Pitt Rivers Museum and National Museum of Scotland to offer their interpretations about the HMS *Blossom*/Bering Strait collection. The project focused on increasing Iñupiat people’s exposure to objects of their cultural heritage as well as incorporating Iñupiat knowledge about the collection into museum records (Lincoln et. al. 2011).

The incorporation of Iñupiat frames of reference into museological discourse represents what Clifford (1991:224) describes as a transition from a “colonial” to a “cooperative” museology. This dissertation project sought to draw on successful cooperative methods through community-based work with carvers and an integration of Native voice throughout the text. Likewise, the project afforded opportunities to serve as a catalyst between museum collections and ivory carvers.

In April 2012, the Carrie McLain Memorial Museum in Nome hosted a presentation on this project with an open invitation to the town. Attendees included a mix of Native and non-Native residents who mingled after the talk to ask questions and examine a range of engraved ivory carvings laid out on a table (Fig. 428). Ivory carvers Wilfred Anowlic and Jerome Saclamana also shared their thoughts during the hands-on-examination and pointed out objects made by King Island carvers in the surrounding display cases. Collections research at the Anchorage Museum also afforded an opportunity to meet with carver Levi Tetpon and arrange a visit to view ivory carvings in storage (Fig. 429). During the visit, Tetpon (June 2012) pointed out carvings made by

hand compared to those involving electric tools, discussed changes in styles, and shared family stories about carving ivory.



Fig. 428. Hands-on examination of engraved ivory drill bows and tusks with Nome community members at the Carrie McLain Memorial Museum. From left: Jerome Saclamana, Wilfred Anowlic, Laura Samuelson, the author. Photograph by Jacob Phillips, 2012.

Fig. 429. Levi Tetpon discussing ivory carvings in the Anchorage Museum at Rasmuson Center. 2012.

As described by Ames (1992:54), multi-vocal collaborations can produce an “insider’s point of view” where community members put forward their own stories and values for consideration. However, collaborative exhibition planners must often work within institutional boundaries that dictate or influence the final exhibit structure including lighting, casework, and written and oral text. Ann Fienup-Riordan (2000:240) explains tensions between curatorial and design departments led to three very different exhibit experiences in 1996 for *Agayuliyararput (Our Way of Making Prayer)*. Likewise, in developing *Gifts from the Ancestors: Ancient Ivories of Bering Strait* at the Princeton University Art Museum (PUAM) in 2009, organizers discussed power struggles and cultural hierarchies as objects, discourse and individuals engaged in unbalanced relationships ultimately limiting the incorporation of Native voice into the exhibit

framework (Hollowell et. al. 2009). PUAM and other classical art museums can perhaps find guidance in the collaborative processes that led to a multimedia reconfiguration of the American Indian art gallery in the Denver Art Museum (Blomberg 2011) and changing exhibits informed by contemporary indigenous aesthetics such as *Shapeshifting: Transformations in Native American Art* (Kramer Russell 2012), organized by the Peabody Essex Museum.³⁷¹

One collaborative method museums and researchers are adopting includes the development of a project website or the creation of an online component to a physical exhibition.³⁷² In “Digital Knowledgescapes,” Fiona Cameron and Helena Robinson (2007:166) argue museum websites can create postmodern environments with an ability to offer “alternative knowledge systems” incorporating varied disciplinary discourse and cultural contexts. For example, a collaborative project between the Smithsonian Arctic Studies Center and Inuvialut Cultural Resource Centre in 2009 resulted in the launch of the virtual museum exhibit *Inuvialut Pitqusiit Inuuniarutait: Inuvialut Living History* incorporating community members’ observations on objects in the MacFarlane Collection, lesson plans for students, and an ability for on-line viewers to post their thoughts on the collection (Lyons et al. 2011).³⁷³ In a similar vein, the Reciprocal

³⁷¹ National institutions have also achieved success with alternative exhibit frameworks as seen in The First Peoples Hall of the Canadian Museum of Civilization, with displays incorporating Native metaphysics into four interdisciplinary themes (Phillips and Phillips 2005), and The First Australians Gallery in the National Museum of Australia, which utilizes storytelling as its primary exhibitionary genre (Morphy 2006).

³⁷² For example, the Canadian Museum of Civilization partnered with Dorset Fine Arts and the West Baffin Eskimo Cooperative in Cape Dorset to create the online exhibition *Inuit Prints from Cape Dorset*, <http://www.civilization.ca/capedorsetprints/>. The virtual exhibit features Canada’s national collection of Cape Dorset prints, the history of printmaking in the Canadian Eastern Arctic and emphasizes Arctic voices through recorded interviews and dialect games.

Research Network (RRN) provides online members the ability to research and share knowledge about almost 500,000 cultural items from the Northwest Coast held at 22 institutions.³⁷⁴ Smithsonian organizers for the *Living Our Cultures* exhibit developed the companion *Sharing Knowledge* website integrating community curators' discussions into collections information while the exhibition *Gifts from the Ancestors* also included a website component where Native voices rather silent in the physical exhibit rose to the forefront in online discourse.³⁷⁵

As seen in these few examples, collaborative projects between museums, researchers and communities offer potential to accommodate shifting discourse and knowledge stemming from changes in disciplinary philosophies and museological practices (Hooper-Greenhill 1992). Perhaps most importantly, integrating multi-vocal discourse into collaborative projects can dislocate representational power and restore indigenous narratives to objects of cultural patrimony.

This dissertation offers a case study in collaborative museology using a selected group of objects, engraved ivory drill bows, and attempts a reconnection of engraved images and oral stories with the potential to promote community awareness of cultural patrimony and a sense of cultural pride and identity. Likewise, by incorporating Iñupiaq

³⁷³ The website "Inuvialut Pitqusiit Inuuniarutait: Inuvialut Living History" launched in May 2012 and was produced in collaboration with the Smithsonian Institution's Arctic Heritage Center, the Department of Canadian Heritage Museum's Assistance Program and additional project partners from universities and cultural organizations, <http://inuvialutlivinghistory.ca>.

³⁷⁴ The RRN was co-developed in 2007 by the Musqueam Indian Band, the Stó:lō Nation/Tribal Council, the U'mista Cultural Society and the Museum of Anthropology at UBC, <http://www.rrnpilot.org/>.

³⁷⁵ The *Sharing Knowledge* project carries the goals, "to make the Smithsonian collections accessible to all and to support cross-cultural learning among Indigenous home communities, in schools, and around the world." http://www.alaska.si.edu/about_this_project.asp. The *Gifts from the Ancestors* website included twelve videotaped clips featuring indigenous consultants and committee members offering insider perspectives on the exhibition and ancient ivories (Chan 2013:25).

and Yup'ik narratives and perspectives into scholarly discussions of ivory carving, communities have the potential to address complexities of past colonial representations and select their own histories and stories for consideration. Multi-vocal projects offer nuanced perspectives on material culture and carry intellectual currency for both academic and community audiences. In addition to promoting multi-vocality within scholarly discourse, this project represents the first comprehensive study of drill bows in national and international collections. A comparative analysis of drill bows assists in revealing the origins of pictorial engraving on ivory, stylistic changes over time and the effect of cross-cultural interactions continuing to impact processes of ivory carving today. Overall, this project involving engraved ivory drill bows from the Bering Strait represents a concerted effort to foster community empowerment, contribute diverse voices to scholarly discourse and reveal the complexities of cultural objects within museum collections.

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APPENDIX A

IÑUPIAT AND YUP'IK CONTRIBUTORS

	Residence	Birthplace	Birth Year
Whitlam Adams / <i>Anugi</i>	Barrow	North Star Ship	1926
Larry Okomailak Sr.	Barrow	Barrow	1950
Perry Matumeak / <i>Nasuk</i>	Barrow	Barrow	1952
Glenn Ipalook / <i>Kachuk</i>	Barrow	Barrow	1954
Gilford Mongoyak Jr.	Barrow	Barrow	1954
Earl Michael Aiken	Barrow	Barrow	1956
John Heffle	Barrow	Fairbanks	1960
William Simmonds	Barrow	Anchorage	1971
Eben Hopson	Barrow	Barrow	2000
Henry Koonook	Point Hope	Point Hope	1955
Alzred 'Steve' Oomittuk	Point Hope	Point Hope	1962
Othniel 'Art' Oomittuk Jr. / <i>Anaqulutuq</i>	Point Hope	Point Hope	1963
Ross Schaeffer Sr. / <i>Qualayauq</i>	Kotzebue	Kotzebue	1947
Kenny Tikik	Kotzebue	Kotzebue	1953
Enoch Evak	Kotzebue	Kotzebue	1956
Jon Ipalook / <i>Natchiq</i>	Kotzebue	Kotzebue	1975
Levi Angutiqjuaq / <i>Attagu</i>	Kotzebue	Igloolik, Nunavut	1984
Jack Frankson Jr.	Kotzebue	Kotzebue	1992
Baker Pootoogooluk	Shishmaref	Iqpik	1939
Albert Olanna	Shishmaref	Iqpik	1948
George Olanna Sr.	Shishmaref	Iqpik	1949
George Milligrock	Shishmaref	Little Diomedes	1951
Roy Sockpick	Shishmaref	Nome	1966

Gary Sockpick	Shishmaref	Nome	1967
Stanley Tocktoo	Shishmaref	Shishmaref	1970
Ricky Kuzuguk	Shishmaref	Shishmaref	1972
Edwin Weyiouanna	Shishmaref	Shishmaref	1972
Randall Jones	Shishmaref	Shishmaref	1982
Thomas Ahgupuk	Shishmaref	Shishmaref	1988
Bert Sockpick	Shishmaref	Shishmaref	1990
James Omiak / <i>Sinaġuyak</i>	Nome	Little Diomedes	1933
John Pullock / <i>Ilonraaq</i>	Nome	King Island	1938
Francis Alvanna / <i>Suluk</i>	Nome	King Island	1940
Sylvester Ayek	Nome	King Island	1940
Joseph Kunnuk	Nome	King Island	1940
John Penatac Sr. / <i>Silook</i>	Nome	King Island	1940
Vince Pikonganna / <i>Ooġmaluq</i>	Nome	King Island	1948
Wilfred Anowlic / <i>Eliqutaq</i>	Nome	King Island	1950
Matthew Tiulana / <i>Kuyooruk</i>	Nome	Nome	1952
Brian Sockpick / <i>Nayokpuk</i>	Nome	Nome	1959
Jerome Saclamana / <i>Kayvanik</i>	Nome	Nome	1963
Thomas Barr	Nome	Shishmaref	1971
Gilbert Lockwood	St. Michael	St. Michael	1942
Damian Tom	St. Michael	St. Michael	1949
Albert Matthias	St. Michael	St. Michael	1955
Joseph Akaran	St. Michael	St. Michael	1976
Ken Lisbourne	Anchorage	Point Hope	1949
Levi Tetpon	Anchorage	Shaktoolik	1952

Note: This list reflects Iñupiat and Yup'ik protocol. Names are ordered by community, running north to south along the Alaska coastline. Within each community, individuals are listed by age (eldest to youngest); their Iñupiaq and Yup'ik names are in italics. In the text, the first occurrence of each speaker's name is followed by place of residence, for example, Joseph Kunnuk (April 2012:4) of Nome. The gathering date and transcript page of the statement follow the contributor's name in parentheses.

APPENDIX B
QUESTIONS USED IN INTERVIEWS WITH CARVERS AND COMMUNITY
MEMBERS

How did crews hunt walrus in the old days?
 Do people continue to hunt walrus around this area?
 How does a hunting crew divide the share of ivory?
 Where are you acquiring some of the ivory you use?
 What ways did carvers acquire ivory in the old days?
 Where do you acquire the other types of materials you carve?
 How long does a carver typically dry a fresh tusk before splitting it?
 Can you talk about the tools you use to split and carve ivory?
 Are your tools similar to those used by your father or grandfather?
 What types of tools do you think carvers used in the old days?
 Can you share any Iñupiaq names for these tools?
 Have you ever used a drill bow?
 Did you see carvers in the past use engraved drill bows?
 We don't know a lot about these older carvings, how do you think they might have been used?
 How did you learn to carve ivory?
 How long have you been carving?
 Did you ever carve in the *qagri*?
 Where do you enjoy carving the most?
 What types of things inspire the way you shape your ivory?
 What tools do you think carvers used to engrave these designs?
 Do you think these abstract designs represent something in particular?
 Have you heard any stories about objects like these?
 Why might the carver have engraved scenes like these?
 Do you think this image relates to a particular story or festival?
 Have you heard of any stories about this myth-like creature?
 Is there a particular name for this creature in Iñupiaq?
 What might this other motif(s) represent?
 Does this drill bow look like it came from a particular area or community?
 Have you ever attempted to engrave on ivory?
 What tool(s) do you use to engrave?
 What black material are you using to rub into your engravings?
 Have you ever tried using red ocher?
 Would you consider your engraving to have a particular style?
 Is there a particular part of carving ivory that you enjoy the most?
 Does ivory carving provide a significant source of income?
 Where do you sell your carvings?
 Have you ever given your carvings as gifts to family members or friends?
 Do you think there should be international restrictions on the sale of ivory carvings?
 Do you think it is important for today's young people to learn to carve ivory?
 Are you interested in learning about or visiting museum collections with objects from this area?
 What aspects of Alaskan Native culture do you think are important to emphasize in museum exhibits?
 Do you collect old objects from this area?
 What ways could this project on ivory carving be useful to you or the community?
 What type of project would you like to see between a museum and the community?

APPENDIX C

MUSEUM COLLECTIONS WITH PICTORIAL ENGRAVED DRILL BOWS

Collection	Number of drill bows	Accession and catalog numbers	Remarks on the collection	Source (s)
Ajaloomuuseum (Tallinn, Estonia)	3	<i>Acc. 4167/11:</i> K-2995/1, K-2995/2, K-2995/3	<p>Small collection of pictorial engraved ivory from Eastern Siberia and Russian America acquired by Estonians in the Russian Imperial Navy during the first half of the nineteenth century.</p> <p>Three engraved drill bows collected by Ferdinand von Wrangell, an officer in the Russian Navy and scientist.</p>	Rousselot and Grahammer 2004
Alaska State Museum (Juneau, AK)	19	<p><i>Acc. Neuman:</i> II-A-2, II-A-3, II-A-4, II-A-5, II-A-7, II-A-8, II-A-9, II-A-10, II-A-13, II-A-37</p> <p><i>Acc. 63-72:</i> II-A-4105</p> <p><i>Acc. 69-33-2:</i> II-A-4463</p> <p><i>Acc. 75-1-43:</i> II-A-4455</p> <p><i>Acc. 80-30-965:</i> II-A-6466</p> <p><i>Acc. 80-30-1076:</i> II-A-6577a</p> <p><i>Acc. 89-13-1:</i> II-A-7340</p> <p><i>Acc. 98-7-241:</i> 98-7-241a</p> <p><i>Acc. 2003-1-10:</i> 2003-1-10</p> <p><i>Absent:</i> II-A-379b</p>	<p>Almost three dozen ivory carvings with old style pictorial engraving and an extensive collection of engraved ivory objects made for the tourist market during the first half of the twentieth century.</p> <p>Various drill bow collectors including Dr. Daniel Neuman who acquired ten engraved drill bows from Norton Sound and Seward Peninsula.</p> <p>One pictorial engraved drill bow on display in the exhibit "Living in Two Worlds"</p>	Collections research by author
American Museum of Natural History (New York, NY)	20	<p><i>Acc. 1894-15:</i> 0/62, 0/423c, 0/498, E/632</p> <p><i>Acc. 1896-42:</i> 60/1201</p> <p><i>Acc. 1899-13:</i> 60/1252, 60/1731, 60/1735A, 60/2122, 60/2123, 60/2124, 60/2126</p> <p><i>Acc. 1906-34:</i> 60/5826</p> <p><i>Acc. 1912-68:</i> 60.1/299, 60.1/934, 60.1/2140</p> <p><i>Acc. 1915-56:</i> 60.1/8339</p> <p><i>Acc. 1916-70:</i> 60.1/4205, 60.1/4227</p> <p><i>Absent:</i> 60/6241</p>	<p>Several early examples of pictorial engraving, including three drill bows acquired by Vilhjamur Stefansson at Cape Smythe.</p> <p>Almost forty pictorial engraved ivory objects from the late nineteenth century, including drill bows, pipes and snow beaters, primarily collected by George T. Emmons and Miner Bruce. Several early twentieth century engraved tusks and cribbage boards from Alaska and Eastern Siberia.</p>	Collections research by author

Anchorage Museum at Rasmuson Center (Anchorage, AK)	3	<i>Acc. 1971.019:</i> 1971.019.001 <i>Acc. 1972.066:</i> 1972.066.001 <i>Acc. 1973.017:</i> 1973.017.001	Small collection of pictorial engraved ivory from the nineteenth century along with several engraved objects made for the early twentieth century tourist market. Two engraved drill bows on display in the Alaska History Gallery and one drill bow from the Smithsonian NMNH exhibited in the Smithsonian Arctic Studies Center.	Collections research by author
British Museum (London, UK)	30	<i>Acc. Christy:</i> Am.1368, Am.1369, Am. 1370, Am.St.763 <i>Acc. Bragge:</i> Am.6745 <i>Acc. Franks:</i> Am.8209, Am.8210 <i>Acc. Simpson:</i> Am.9367, Am.9368, Am.9369 <i>Acc. 1855.1126:</i> Am.1855.1126.224, Am.1855.1126.225, Am.1855.1126.226, Am.1855.1126.227 <i>Acc. 1855.1220:</i> Am.1855.1220.227, Am.1855.1220.228ab, Am.1855.1220.229 <i>Acc. 1925.0508:</i> Am1925.0508.3 <i>Acc. 1949.22:</i> Am1949.22.22, Am1949.22.23, Am1949.22.24, Am1949.22.25, Am1949.22.26 <i>Acc. 1970.06:</i> Am1970.06.1, Am1970.06.2 <i>Acc. 1982.09:</i> Am1982.09.1 <i>Acc. 1983.27:</i> Am1983.27.1 <i>Acc. 1985.Q:</i> Am1985.Q.256 <i>Acc. 1999.02:</i> Am1999.02.1, Am1999.02.2	Almost fifty pictorial engraved ivory drill bows, arrow straighteners, snow beaters, and misc. mainly acquired by British naval officers during the first half of the twentieth century. Largest European collection of engraved drill bows with early examples collected by Frederick W. Beechey, Edward Belcher and William Hulme Hooper. Seven engraved drill bows on display in the Native North America Gallery and one drill bow exhibited in the Enlightenment Gallery.	Collections research by author Bockstoce 1977
Brooklyn Museum (New York, NY)	1	<i>Acc: 22.1798</i>	A few examples of pictorial engraved ivory with one drill bow from the late nineteenth century.	Brooklyn Museum online database
Burke Museum of Natural History and Culture (Seattle, WA)	2	<i>Acc. 881:</i> 4501 <i>Acc. 2076:</i> 7178	Small collection of nineteenth century pictorial engraved ivory. Almost thirty engraved cribbage boards, tusks, etc. made for the early twentieth century tourist market.	Collections research by author
Canadian Museum of Civilization	11	<i>Acc. Mercier:</i> IV-E-51, IV-E-52, IV-E-53, IV-E-54, IV-E-55, IV-E-56, IV-E-58	Several early examples of pictorial engraved ivory acquired by Diamond Jenness from	Collections research by

(Ottawa, Ontario)		<i>Acc. 1982-031-040:</i> IV-E-1116 <i>Acc. 1983-029-064:</i> IV-X-887 <i>Acc. 1983-048-111:</i> IV-E-1161 <i>Absent:</i> PgHq-1:1	Cape Prince of Wales and Little Diomedé. Large collection of nineteenth century pictorial engraved ivory from Alaska and twentieth century pictorial engraving from Canada. Various drill bow collectors including Francois Mercier who acquired seven engraved drill bows from Norton Sound. One drill bow on display in the First Peoples Hall.	author
Carnegie Museum of Natural History (Pittsburgh, PA)	3	<i>Acc. 19267:</i> 19267 <i>Acc. 23102:</i> 23102-15518, 23102-15519	Small collection of ivory objects with old style pictorial engraving and a few examples of early twentieth century engraved ivory for the souvenir trade. Two pictorial engraved drill bows on display in Polar World: Wyckoff Hall of Arctic Life.	Museum visit by author Jacobs and Richardson 1983:177
Carrie M. McLain Memorial Museum (Nome, AK)	1	<i>Acc. 1997:002:</i> 01.27.01	A few examples of old style pictorial engraved ivory and a large collection of engraved ivory made in Nome for the tourist market. One drill bow on display in the main gallery.	Collections research by author
Deutsches Ledermuseum (Offenbach)	1	<i>Absent:</i> 11574	Small collection of Arctic material in the Ethnology Museum wing with at least one pictorial engraved ivory drill bow from the late nineteenth century.	Deutsches Ledermuseum website Collins 1973:88-89
Etnografiska Museet (Stockholm)	5	<i>Acc. 1880.04:</i> 1880.04.1029, 1880.04.1030, 1880.04.1031, 1880.04.1032, 1880.04.1034	Small collection of pictorial engraved ivory including five drill bows acquired by Nordenskiöld from Port Clarence in 1879.	Etnografiska Museet online database

				VanStone 1990
Ethnologisches Museum der Staatliche Museen zu Berlin (Berlin, Germany)	12	<i>Acc. and Cat.:</i> J.368 IVA 2791, J.370 IVA 2792, J.371 IVA 2793, J.372 IVA 2794, J.373 IVA 2795, J.741 IVA 3147, J.742 IVA 3148, J.746 IVA 3341, J.747 IVA 3150, J.750 IVA 3152, J.755 IVA 3156, J.756 IVA 3157	Almost thirty pictorial engraved ivory drill bows, bag handles, arrow straighteners, pipes, and misc. acquired by Johan Adrian Jacobsen from Seward Peninsula between 1882-1883. Twelve drill bows collected by Jacobsen with lesser-known examples of pictorial engraving from the Kawerak region.	Königliche Museen zu Berlin 1884
Horniman Museum (London, UK)	4	<i>Absent:</i> 15.24, 27.4.61/32, 33.238, 1976.68	Small collection of about ten pictorial engraved ivories from the late eighteenth to early twentieth century. Four pictorial engraved drill bows including the earliest documented drill bow collected by Captain James Cook in 1778.	Collections research by author
Kunstkamera (St. Petersburg, Russia)	10	<i>Absent:</i> MAE 31-111, MAE 571-52, MAE 633-22, MAE 633-23, MAE 633-24, MAE 633-25, MAE 2938-11, MAE 2938-17, MAE 2938-23, MAE 4291-50	Small collection of pictorial engraved ivory acquired in Alaska during the first half of the twentieth century. Several twentieth century engraved objects from Eastern Siberia. Various drill bow collectors including one engraved drill bow acquired by the Russian explorer Lavrentiy A. Zagoskin between 1842-1844. Early example of a pictorial engraved drill bow from Little Diomede.	Collections photos Fitzhugh and Crowell 1988
Manchester Museum (Manchester, UK)	6	<i>Acc. Darbshire:</i> 0.900, 0.977, 0.2164, 0.2165 <i>Acc. Heape:</i> H.588 <i>Absent:</i> 0.8562	Almost three dozen pictorial engraved ivories including drill bows, tools, flat sections of tusks and cribbage boards from the late nineteenth to early twentieth century. British collectors R. D. Darbshire and Charles Heape purchased the majority of engraved drill bows during the late nineteenth century.	Manchester Museum 1983
Weltmuseum Wien (World Museum)	1	<i>Absent:</i> 1855:VO_3920	One identified drill bow with pictorial engraving acquired on the around-the-world	Weltmuseum Wien online

Vienna) (Vienna, Austria)			scientific expedition by the Austrian Frigate <i>Novara</i> in 1855.	database
Museum of Cultures (Helsinki, Finland)	5	<i>Acc. Etholén:</i> VK 334:1, VK 334:2, VK 334:3, VK 334:4, VK 334:5	Small collection of pictorial engraved ivory from the Bering Strait and Southwest Alaska acquired by Arvid Adolf Etholén during nautical surveys for the Russian-American Company between 1822-30. Five drill bows heavily engraved with mythological creatures, caribou and hunting scenes.	Varjola 1990
Museum of Fine Arts, Boston (Boston, MA)	1	<i>Acc. 1993.3</i>	A few examples of pictorial engraved ivory including one late nineteenth century drill bow on display in the Native North American Art Gallery.	Museum of Fine Arts, Boston online database
National Museum of Scotland (Edinburgh, UK)	3	<i>Absent:</i> A.1891.111, A.1901.81, A.UC.236	A few examples of pictorial engraved ivory including three nineteenth century drill bows. Two engraved drill bows on display in the World Cultures, Living Lands Gallery.	National Museum of Scotland online database
New Bedford Whaling Museum (New Bedford, MA)	3	<i>Absent:</i> 00.200.90, 1925.16.1, 1959.8.208	A collection of almost fifty pictorial engraved ivories from Alaska and Eastern Siberia. Engraved ivory drill bows, pipes, tusks and a large collection of cribbage boards with several examples by Happy Jack. Three late nineteenth century pictorial engraved drill bows and one drill bow labeled a “fake” made during the 1960s-80s.	New Bedford Whaling Museum online database
Peabody Museum of Archaeology and Ethnology (Cambridge, MA)	8	<i>Acc. 04-28-10:</i> 63546 <i>Acc. 31-32-10:</i> K116 <i>Acc. 66-25-10:</i> 44182 <i>Acc. 67-9-10:</i> 144 <i>Acc. 88-51-10:</i> 50809 <i>Acc. 94-57-10:</i> R105, R106 <i>Acc. 98-18-10:</i> 52140	Approximately three dozen old style pictorial engraved ivories including drill bows, pipes, flat sections of tusks and misc. A few examples of Western pictorial engraving on pipes and tusks. Various drill bow collectors including New England philanthropist Frederick H. Rindge	Collections research by author

			<p>who donated two drill bows and almost fifteen additional engraved ivories from the nineteenth century.</p> <p>One engraved drill bow on display in the Hall of the North American Indian.</p>	
Phoebe A. Hearst Museum of Anthropology (Berkeley, CA)	16	<p><i>Acc. 46:</i> 2-1291c, 2-1425, 2-1559, 2-1561, 2-1562 <i>Acc. 128:</i> 2-6974 <i>Acc. 167:</i> 2-4119, 2-4120, 2-4121, 2-4123, 2-4124, 2-4125, 2-4127, 2-4550 <i>Acc. 591:</i> 2-10898 <i>Acc. 1919:</i> 2-38438</p>	<p>Large collection of approximately one hundred late nineteenth century pictorial engraved ivories including drill bows, pipes, small boxes, tusks, combs and misc.</p> <p>Thirteen engraved drill bows acquired between 1870-1900 by Rudolph Neumann and Charles Hall while in the employ of the Alaska Commercial Company in St. Michael.</p>	<p>Collections research by author</p> <p>Graburn, Lee and Rousselot 1996</p>
Pitt Rivers Museum (Oxford, UK)	16	<p><i>Acc. 1884.33:</i> 1884.33.31 <i>Acc. 1884.68:</i> 1884.68.19, 1884.68.20, 1884.68.21, 1884.68.22 <i>Acc. 1884.98:</i> 1884.98.47, 1884.98.48 <i>Acc. 1884.118:</i> 1884.118.19 <i>Acc. 1884.140:</i> 1884.140.488 <i>Acc. 1886.1:</i> 1886.1.692, 1886.1.693, 1886.1.694, 1886.1.695, 1886.1.696, 1886.1.697 <i>Acc. 1969.34:</i> 1969.34.9</p>	<p>A collection of almost twenty pictorial engraved ivories with a predominance of drill bows acquired by Frederick W. Beechey and Edward Belcher during the voyage of the HMS <i>Blossom</i> from 1826-27.</p> <p>One engraved drill bow displayed in Making Light and Fire, Ground Floor Court.</p>	<p>Collections research by author</p> <p>Bockstoe 1977</p>
Princeton University Art Museum (Princeton, NJ)	3	<p><i>Absent:</i> 1997-321, 1997-324, 1998-491</p>	<p>Small collection of about a dozen pictorial engraved ivories from the late nineteenth to early twentieth century including three engraved drill bows.</p>	<p>Princeton University Art Museum online database</p>
Royal Albert Memorial Museum and Art Gallery (Exeter, UK)	2	<p><i>Acc. 51/1916:</i> 51/1916/58, 51/1916/59</p>	<p>Small collection of pictorial engraved ivory including two drill bows, two snow beaters and one netting needle collected 1826-27 by George Shuldham Peard on the voyage of the HMS <i>Blossom</i>.</p>	<p>Pearce 1976</p>
Royal Ontario Museum	3	<p><i>Acc. HC1316A:</i> HC1316A <i>Acc. HC2110A:</i> HC2110A</p>	<p>Almost twenty pictorial engraved ivories from Alaska, Canada and Eastern Siberia acquired</p>	<p>Collections records</p>

(Toronto, Ontario)		<i>Acc. HC3123A:</i> HC3123A	during the late nineteenth to early twentieth century. Three pictorial engraved drill bows from the Mackenzie River area in the Northwest Territories, Canada.	
Sheldon Jackson Museum (Sitka, AK)	10	<i>Acc. Jackson:</i> SJ-II-K-106, SJ-II-K-192, SJ-II-P-13a, SJ-II-Y-17a, SJ-II-Y-58 <i>Acc. 303:</i> SJ-II-V-125 <i>Acc. 369f:</i> SJ-II-J-91a <i>Absent:</i> SJ-II-F-12b, SJ-II-X-224, SJ-II-Y-129a	A collection of almost twenty pictorial engraved drill bows, pipes and misc. from the late nineteenth century along with several engraved tusks and cribbage boards for the early twentieth century tourist trade. Five engraved drill bows identified as being collected by Sheldon Jackson from Northwest Alaska during the late nineteenth century. Two engraved drill bows on display in the main gallery.	Collections research by author
Smithsonian National Museum of Natural History (Washington, D.C.)	123	<i>Acc. 76A00100:</i> E24419, E24533, E24536, E24537, E24538, E24539, E24540, E24541, E24543, E24544, E24545, E24546, E24547, E24548, E24549, E24550, E24551, E24552, E24553, E24554, E24556, E24557 <i>Acc. 19248:</i> E129222, E129223 <i>Acc. 78A00080:</i> E33178, E33179, E33180, E33182, E33183, E33184, E33186, E33187, E33188, E33189, E33190, E33191, E33192 <i>Acc. 8133:</i> E38521, E38522, E38781, E38782, E38886 <i>Acc. 80A00050:</i> E43360, E43810, E43931, E43932, E44206, E44207, E44208, E44209, E44210, E44213, E44366, E44367, E44398, E44399, E44400, E44464, E44465, E44467, E44618, E45016, E45017, E45018, E45020, E45021, E45022, E45025, E45330, E45332, E45333, E45345, E45346 <i>Acc. 82A00003:</i> E63621, E63622, E63623,	Several early examples of pictorial engraving including drill bow fragments from Point Hope and Little Diomedes and engraved implements from Cape Prince of Wales. An extensive collection of approximately two hundred nineteenth century pictorial engraved ivory and bone objects including drill bows, bag handles, pipes, awls, arrow straighteners, small boxes and misc. Largest North American collection of engraved drill bows chiefly acquired by Smithsonian collectors Lucien Turner, Edward Nelson and John Murdoch between 1874-1883.	Collections research by author Fitzhugh and Kaplan 1982 Nelson 1983 [1899] Fitzhugh and Crowell 1988 Murdoch 1988 [1892]

		<p>E63802, E63803, E63804, E63805, E64151, E64152, E64153 <i>Acc. 31796:</i> E176171, E176172, E176191, E176194 <i>Acc. 9536:</i> E46054, E46065 <i>Acc. 12009:</i> E67904 <i>Acc. 13712:</i> E89420, E89421, E89424, E89425 <i>Acc. 15716:</i> E75461/E75462 <i>Acc. 25748:</i> E154071 <i>Acc. 51115:</i> E260132 <i>Acc. 54171:</i> E274548 <i>Acc. 60354:</i> E292228 <i>Acc. 64842:</i> E313717 <i>Acc. 113605:</i> E360421, E360422 <i>Acc. 153865:</i> E379814, A380771 <i>Acc. 231572:</i> E398234 <i>Acc. 349794:</i> E422574 <i>Acc. 999999:</i> ET01076.1, ET01076.2, ET16050, ET16060 <i>Acc. 0:</i> E48115, E48116, E48518, E48519, E48520, E48521, E48522, E48523, E48524, E48525, E48526, E48527, E49163</p>		
Smithsonian National Museum of the American Indian (Washington, D.C.; New York)	15	<p><i>Acc. and Cat.:</i> 2142, 4488, 20418, 52955, 54337, 55597, 55598, 62376, 62378, 67885, 94635, 193412, 191629, 208880, 246479</p>	<p>A collection of about fifty pictorial engraved drill bows, bags handles, pipes, net gauges, harpoon rests and misc. from the late nineteenth century. Several examples of engraved objects in the style of Vladimir Naomoff.</p> <p>Engraved drill bows collected and purchased from a number of individuals including three drill bows acquired from Joseph E. Standley and two drill bows from the Fred Harvey Collection.</p> <p>One engraved drill bow on display in the exhibition <i>Infinity of Nations</i> at the National</p>	Collections research by author

The Field Museum (Chicago, IL)	13	<p><i>Acc. 1893.128:</i> 12598 <i>Acc. 1896.112:</i> 13460, 13461, 13463, 13472 <i>Acc. 1897.67:</i> 12587 <i>Acc. 1897.512:</i> 49587, 49588, 49589 <i>Acc. 1927.1740:</i> 177754, 177755, 177756 <i>Absent:</i> 12591</p>	<p>Museum of the American Indian, New York.</p> <p>Approximately fifty ivory objects with old style pictorial engraving including drill bows, bag handles, and many ivory pipes. Several ivories engraved in the style of Vladimir Naomoff.</p> <p>Various drill bow collectors including E. E. Ayer who acquired seven drill bows and John Borden who collected three drill bows during the Alaska-Arctic Expedition of 1927.</p> <p>Large display of nineteenth century engraved ivories, including ten drill bows, exhibited in the Northwest Coast and Arctic Peoples Hall.</p>	Collections research by author
University of Alaska Museum of the North (Fairbanks, AK)	2	<p><i>Acc. UA74-067:</i> UA74-067-0011A <i>Acc. UA94-009:</i> UA94-009-0038</p>	<p>A few examples of old style pictorial engraved ivory and over two-dozen engraved tusks, cribbage boards and misc. from Alaska and Eastern Siberia made for the twentieth century tourist market.</p> <p>Several old ivory fragments and pieces of bone slat armor with recent engravings based on nineteenth century drill bows and figures from Hoffman 1897.</p> <p>Two nineteenth century pictorial engraved ivory drill bows including an early example from Little Diomedé collected by Harold McCracken.</p>	Collections research by author
University of Cambridge Museum of Archaeology and Anthropology (Cambridge, UK)	3	<p><i>Acc. MAA 1993-03-15:</i> E 1904.242, E 1904.243 <i>Acc. MAA 1993-03-26:</i> 1933.290 A-D</p>	<p>A few examples of late nineteenth century pictorial engraved ivory including one drill bow acquired by Isobel Hutchinson in Wainwright and two drill bows purchased by the University of Cambridge in 1904.</p>	University of Cambridge Museum of Archaeology and Anthropology online database

University of Pennsylvania Museum of Archaeology and Anthropology (Philadelphia, PA)	16	<i>Acc. and Cat.:</i> NA454, NA455, NA456, NA457, NA460, NA461, NA1517, NA4488, NA9387, 15324, 41428, 42016, 29-151-279, 86-35-364a, 97-84-457a, 97-84-570	Over two dozen old style pictorial engraved ivory carvings from the late nineteenth to early twentieth century including drill bows, pipes, bag handles, small boxes and misc. Various drill bow collectors including museum anthropologist George Byron Gordon who acquired seven engraved drill bows in Alaska between 1905-07.	Collections research by author Mason 1927
Wells Fargo Alaskan Heritage Museum (Anchorage, AK)	3	<i>Absent:</i> 100405, 101586, unknown	A few examples of old style pictorial engraving and a large collection of Western pictorial engraved tusks and cribbage boards for the tourist trade. Three early twentieth century pictorial engraved drill bows, including one without identification, from Norton Sound. One engraved drill bow on display in the main gallery and a second drill bow displayed in an exhibit case outside an elevator landing.	Collections research by author
Wereldmuseum (Rotterdam)	3	<i>Absent:</i> 34858, 34859, 34875	A few examples of nineteenth century pictorial engraved ivory including two drill bows acquired by British dealer William Ockelford Oldman.	Wereldmuseum online database Collins 1973:88-89

APPENDIX D
EARLY EXPLORERS AND FIELD COLLECTORS OF PICTORIAL ENGRAVED
DRILL BOWS

(Adapted and expanded from Hollowell 2004:535-547)

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Collector	Date and place of collecting activities	Nationality and affiliation	Remarks on the collection	Source
James Cook Charles Clerke David Samwell	1778/1779 Bering Strait islands, coast of Alaska and northern Chukotka	British <i>HMS Resolution</i> In pursuit of a Northwest Passage, surveyed the coasts of Alaska and northern Chukotka	Cook made the first known acquisition of an engraved drill bow, illustrated by John Pennant in 1784 and now in the Horniman Museum. The journal of <i>Resolution's</i> surgeon David Samwell contains the first reference to pictorial engraving on ivory, collected at East Cape, Chukotka. 1 pictorial engraved drill bow: <i>Horniman Museum, London: 27.4.61/32</i>	Beaglehole 1967:407-41, 1132-36 Pennant 1784: pl. CXLIV
Otto von Kotzebue Adelbert von Chamisso Louis Choris	1816 Kotzebue Sound and northern coast of Seward Peninsula	Baltic German (in Russian employ) <i>Rurik</i> Looking for Northeast Passage to the Bering Sea	Collected two engraved drill bows and carved ivory animals and figures from Cape Espenberg during the summer of 1816 in exchange for tobacco, small beads, knives and mirrors 2 pictorial engraved drill bows: Illustrated by Choris (1822: pl.IV)	Chamisso 1986:87 Choris 1822:10 Kotzebue (1821) 1967:209-210
Frederick W. Beechey Edward Belcher George Shuldham Peard	1826/1827 northern Alaska coastline from Seward Peninsula to Point Barrow	British <i>HMS Blossom</i> Exploration of the Bering Strait in concert with Franklin and Parry, went in search of Franklin in 1827	Collected engraved ivories at Hotham Inlet during the summer of 1826. Largest collection of early nineteenth-century engraved drill bows. Beechey collected 7 pictorial engraved drill bows: <i>BM: Am1983.27.1</i> <i>PR: 1886.1.692, 1886.1.693, 1886.1.694, 1886.1.695, 1886.1.696, 1886.1.697</i> Belcher collected 6 pictorial engraved drill bows: <i>BM: Am8209, Am8210</i>	Beechey (1831) 1968:340-408 Bockstoece 1977 Pearce 1976 Peard 1973

			<i>PR</i> : 1884.68.20, 1884.98.47, 1884.98.48, 1969.34.9 Peard collected 2 pictorial engraved drill bows: <i>Royal Albert Memorial Museum, Exeter</i> : 51/1916/58, 51/1916/59	
Haslar Hospital; Lords of Admiralty	1827-1855 Bering and Chukchi Seas	British Royal Navy	Haslar Hospital Museum founded in 1827 and attached to the Haslar Royal Naval Hospital near Portsmouth; contained medical specimens and ethnographic objects acquired by men serving in the Royal Navy Large ethnological collection presented by the Lords of Admiralty to the British Museum in 1855. Three pictorial engraved ivory drill bows in addition to engraved ivory arrow straighteners, awls and a toggle. 3 pictorial engraved drill bows: <i>BM</i> : Am1855.1220.227, Am1855.1220.228ab, Am1855.1220.229	BM Accession #Am1855.1220
Arvid Adolf Etholén	1830 Norton Sound and the Bering Sea	Finnish Russian-American Company	Large ethnographic collection with engraved ivory carvings from Norton Sound and Bristol Bay. Collected 3 pictorial engraved drill bows: <i>Museum of Cultures, Helsinki</i> : VK 334:1, VK 334:2, VK 334:3, VK 334:4, VK 334:5	Varjola 1990
Ferdinand von Wrangell	1830-1835 Sitka	Russian Director of the Russian-American Company	Acquired a small collection of Iñupiat and Tlingit material while serving as the governor-general of Sitka. Collected 3 pictorial engraved drill bows: <i>Ajaloomuuseum, Tallin</i> : K-2995/1, K-2995/2, K-2995/3	Rousselot and Grahammer 2004
William Hulme Hooper	1848-1849 eastern coast of Chukotka from Indian Point to East Cape and	British HMS <i>Plover</i> British naval officer	During 1848-49 acquired ethnographic objects among Chukchi and Iñupiat including a sealskin painted with village scenes now at the Pitt Rivers Museum Over fifty ethnological objects acquired by Hooper in the	BM Accession #Am1855.1126

	northwest coast of Alaska from Kotzebue Sound to Point Barrow	aboard the <i>Plover's</i> 1848-51 expedition to the Bering Strait in search of Sir John Franklin	Bering Strait donated to the British Museum by John Barrow in 1855 and Miss K Eden Hooper in 1943. Three pictorial engraved drill bows, plain ivory implements and a number of carved ivory animals. 3 pictorial engraved drill bows: <i>BM</i> : Am1855.1126.224, Am1855.1126.225 Am1855.1126.226	Hooper 1853
Henry Christy	1860-1869	British Private collector	Banker and ethnographer; collected thousands of objects during world-wide travels; acquired an ethnological collection from the Haslar Hospital Museum; donated funds to the British Museum for new acquisitions, Ethnological collection Christy purchased from the Haslar Hospital Museum entered the British Museum following his passing in 1865. Three pictorial engraved ivory drill bows, and one pictorial engraved net gauge originally collected and illustrated by Frederick Beechey. 3 pictorial engraved drill bows: <i>BM</i> : Am1368, Am1369, AmSt.763	BM Accession #Christy
William Healey Dall	1866-68 Port Clarence and Seward Peninsula	American Smithsonian Institution	Assembled large collection of natural history specimens and ethnological material for the Smithsonian as a member of the Western Union Telegraph Expedition. Described use of engraved drill bows by carvers. Collected 2 pictorial engraved drill bows: <i>NMNH</i> : E46054 <i>ASM</i> : 2003-1-10	NMMH Accession #9536 ASM Accession #2003-1-10 Dall 1870:237

Francois Mercier	1868-1885 St. Michael and Norton Sound	Canadian Private collector Employed by the ACC followed by the Western Fur and Trading Co.	Sold the CMC a large ethnological collection from Norton Sound including seven engraved drill bows and a number of engraved ivory pipes. 7 pictorial engraved drill bows: <i>CMC</i> : IV-E-51, IV-E-52, IV-E-53, IV-E-54, IV-E-55, IV-E-56, IV-E-58	CMC Accession #Mercier Finn Yarborough 1986
Alaska Commercial Company Rudolph Neumann	c. 1872-1889 St. Michael and Norton Sound	American Alaska Commercial Company	The ACC assembled its own private collection for a museum in San Francisco. Sent ethnological material to the 1876 Philadelphia Centennial Exposition and the 1893 Chicago World's Fair. Neumann served as director of the ACC regional headquarters at St. Michael and facilitated acquisitions from Alaska Natives and independent traders. Collected wide range of engraved ivory carvings and labeled each one. Over 2200 objects from the ACC acquired by the Phoebe A. Hearst Museum. 8 pictorial engraved drill bows: <i>PHMA</i> : 2-4119, 2-4120, 2-4121, 2-4123, 2-4124, 2-4125, 2-4127, 2-4550	PHMA Accession #167 Graburn, Lee and Rousselot 1996
Lucien Turner	1874-1877 St. Michael and Norton Sound	American Smithsonian Institution	Assembled large ethnological collection while stationed at St. Michael as officer of the U.S. Signal Corps. First sizeable collection of pictorial engraved carvings for the Smithsonian. Collected 25 pictorial engraved drill bows: <i>NMNH</i> : E24419, E24533, E24536, E24537, E24538, E24539, E24540, E24541, E24543, E24544, E24545, E24546, E24547, E24548, E24549, E24550, E24551, E24552, E24553, E24554, E24556, E24557, E129222, E129223	NMMH Accession #76A00100, #19248 PMAE Accession #88-51-10

			<i>PMAE</i> : 88-51-10/50809	
William Sparrow Simpson	1875	British Private collector	Served as a religious official and academic amassing a large international collection including ethnographic material from the Bering Sea and Northwest Coast of Alaska. Collected 3 pictorial engraved drill bows: <i>BM</i> : Am9367, Am9368, Am9369	BM Accession #Simpson
Frederick H. Rindge	c.1875-1894	American Private collector	Millionaire-philanthropist of Southern California; interest in early American history and Native American material culture; exhibited a large collection of Pacific Coast archaeology at his home in Los Angeles. Donated over 9000 archaeological and ethnological objects to the Peabody Museum; two pictorial engraved drill bows and over a dozen additional engraved ivory and bone carvings. 2 pictorial engraved drill bows: <i>PMAE</i> : 94-57-10/R105, 94-57-10/R106	<i>PMAE</i> Accession #94-57-10
Edward Nelson	1877-1881 coast of Alaska from Norton Sound to Point Barrow, Yukon-Kuskokwim region, eastern coast of Chukotka	American Smithsonian Institution	Served as U.S. Signal Corps Officer at St. Michael from 1877-1881. Collected over 10,000 objects from many villages as field collector for the Smithsonian. Acquired almost one-third of all nineteenth-century engraved ivory drill bows. Collected 80 pictorial engraved drill bows: <i>NMNH</i> : E38521, E38522, E38781, E38782, E38886, E43360, E43810, E43931, E43932, E44206, E44207, E44208, E44209, E44210, E44213, E44366, E44367, E44398, E44399, E44400, E44464, E44465, E44467, E44618, E45016, E45017, E45018, E45020, E45021, E45022, E45025, E45330, E45332, E45333, E45345, E45346, E63621, E63622, E63623, E63802, E63803, E63804, E63805, E64151, E64152, E64153, E63621,	NMMH Accession #8133, #80A00050, #82A00003, #31796 Nelson (1899) 1983

			E63622, E63623, E63802, E63803, E63804, E63805, E64151, E64152, E64153, E176171, E176172, E176191, E176194, ET01076.1, ET01076.2, ET16050, ET16060, E48115, E48116, E48518, E48519, E48520, E48521, E48522, E48523, E48524, E48525, E48526, E48527, E49163 <i>NMAI</i> : 20418	
Adolf Eric Nordenskiöld	1879 Port Clarence	Swedish <i>Vega</i> Looking for a Northeast Passage to the Bering Strait	Spent four days at Port Clarence bartering for an ethnological collection of 246 objects. Acquired five engraved ivory drill bows. Describes engraved drill bows being used to start fires. 5 pictorial engraved drill bows: <i>Etnografiska Museet, Stockholm</i> : 1880.04.1029, 1880.04.1030, 1880.04.1031, 1880.04.1032, 1880.04.1034	Etnografiska Museet Accession #1880.04 Nordenskiöld 1881:235-241. VanStone 1990
John Murdoch and Patrick H. Ray	1881-1883 Point Barrow and Cape Smythe	American Smithsonian Institution	Members of the International Polar Expedition to Point Barrow. Collected a few thousand objects including engraved ivory drill bows and bag handles from Point Barrow and Cape Smythe. Collected 4 pictorial engraved drill bows: <i>NMNH</i> : E89420, E89421, E89424, E89425	NMNH Accession #13712 Murdoch (1892) 1988
Johan Adrian Jacobsen	1882-1883 Seward Peninsula and Norton Sound	German Museum für Volkerkunde (Royal Ethnological Museum)	Six-month collecting expedition to Seward Peninsula and Norton Sound as a field collector for the Royal Ethnological Museum in Berlin. Acquired 7000 objects including engraved ivory drill bows, bag handles, pipes and misc. carvings. Collected 12 pictorial engraved drill bows: <i>Royal Ethnological Museum, Berlin</i> : J.368 IVA 2791, J.370 IVA 2792, J.371 IVA 2793, J.372 IVA 2794, J.373 IVA 2795, J.741 IVA 3147, J.742 IVA 3148, J.746 IVA 3341, J.747 IVA 3150, J.750 IVA 3152, J.755 IVA 3156, J.756 IVA 3157	Königliche Museen zu Berlin 1884 Jacobsen 1977

John Hackman and Koenig Joseph E. Standley	c. 1889-1905 Point Hope and northwest Alaska	American Private and commercial collectors	Hackman and his brother-in-law operated a shore whaling station at Point Hope for several years beginning in 1889. They made collections while in Point Hope and sold to curio dealers including J.E. Standley. Standley sold George Heye engraved drill bows with northern Alaska proveniences, probably purchased from Hackman and Koenig. Hackman sold 1 pictorial engraved drill bow to Heye: <i>NMAI</i> : 4488 Standley sold 3 pictorial engraved drill bows to Heye: <i>NMAI</i> : 54337, 55597, 55598	NMAI catalogue records Duncan 2000:46
Sheldon Jackson	1885-1898 Bering and Chukchi Seas, coast of Alaska	American Private collector	Made collections during trips aboard the Revenue Cutter <i>Bear</i> as administrator of the reindeer project and General Agent of Education for Alaska. Private collection of over 3,000 objects became foundation of Alaska's first museum in Sitka. Collected 6 pictorial engraved drill bows: <i>SJM</i> : SJ-II-K-106, SJ-II-K-192, SJ-II-P-13a, SJ-II-Y-17a, SJ-II-Y-58 <i>FM</i> : 12598	Sheldon Jackson Museum catalogue records Field Museum Accession #1893.128 Carlton 1999
Edward E. Ayer	1893/1896-97	American Private collector and donor	First director of the Field Museum who donated his private collection to the Museum when it opened in 1894. Acquired engraved drill bows from the 1893 Columbian Exposition and purchased additional drill bows from Joseph Nathan in San Francisco. <i>Collected 7 pictorial engraved drill bows:</i> <i>FM</i> : 13460, 13461, 13463, 13472, 49587, 49588, 49589	Field Museum Accession #1896.112, #1897.512
Miner Bruce	1892-99 Seward Peninsula and Kotzebue Sound	American Commercial collector	Served as manager of Teller Reindeer Station from 1892-93 and assembled large Port Clarence collection. Took 11 Alaska Natives from Wales to perform at the Columbian Exposition in 1893. Set up trading post in Kotzebue Sound and marketed his collections to major museums.	AMNH Accession #1899-13 PMAE

			<p>Acquired over 1500 objects from the northwest coast of Alaska including engraved ivory drill bows and pipes.</p> <p>Collected 9 pictorial engraved drill bows: AMNH: 60/1252, 60/1731, 60/1735A, 60/2122, 60/2123, 60/2124, 60/2126 NMAI: 2142 PMAE: 98-18-10/52140</p>	<p>Accession #98-18-10</p> <p>VanStone 1976; 1980</p>
Charles L. Hall	<p>1894-1901</p> <p>St. Michael and Norton Sound to the Lower Yukon</p>	<p>American</p> <p>Private turned commercial collector Employed by the ACC</p>	<p>Assembled a large collection of ethnographic material over an eight-year period while working for the ACC in Norton Sound. Sold the majority of his collection to the Phoebe Hearst Museum in 1902.</p> <p>Collected 6 pictorial engraved drill bows: <i>PHMA</i>: 2-1291c, 2-1425, 2-1559, 2-1561, 2-1562 <i>PMAE</i>: 04-28-10/63546</p>	<p>PHMA Accession #46</p> <p>PMAE Accession #04-28-10</p>
George T. Emmons	<p>1894-1925</p> <p>Alaska, particularly Northwest Coast, with periodic trips to the Bering Sea</p>	<p>American</p> <p>Commercial collector</p>	<p>Purchased ethnographic material from Natives, dealers and traders while serving as a naval lieutenant and then sold his “complete” collections to museums and private collectors.</p> <p>Collected 7 pictorial engraved drill bows: <i>AMNH</i>: 0/62, 0/423c, 0/498, E/632, 60/5826, 60.1/4205, 60.1/4227 <i>ASM</i>: II-A-379</p>	<p>AMNH Accession #1894-15, #1906-34, #1916-70</p> <p>Cole 1985</p>
Benjamin Sharp	<p>1895</p> <p>Alaska and eastern Chukotka</p>	<p>American</p> <p>University of Pennsylvania; Academy of Natural Sciences;</p>	<p>Traveled to Alaska and Siberia aboard the U.S. Revenue Cutter <i>Bear</i> in 1895 taking photographs and making collections. Acquired an engraved ivory drill bow with a provenience of Indian Point, Chukotka.</p> <p>1 pictorial engraved drill bow: <i>PENN</i>: 97-84-457</p>	<p>University of Pennsylvania Archives and Records Center, Guide to the Benjamin Sharp Jr. Papers</p>
E. A. McIlhenny	<p>1897-1898</p>	<p>American</p>	<p>Acquired 1589 objects while in northern Alaska, many uncovered from the Utqiavik site close to Point Barrow</p>	<p>U Penn Museum</p>

	Point Barrow and Point Hope	Private expedition	and the cemetery at Point Hope. Sold his collection for \$3500 to the University of Pennsylvania Museum. Collected ivory implements, a few engraved ivory objects, and a wooden gorget with painted whaling scenes. Collected 1 pictorial engraved drill bow: <i>PENN</i> : 41428	catalogue records Kaplan and Barsness 1986:12
Victor Justice Evans	c.1900-1930	American Private collector	Founded a patent business; amassed a large collection of Native American objects from Alaska, Arizona, Colorado, New Mexico, Peru and Mexico; lent objects to the Smithsonian during his lifetime Over 6000 objects of primarily North American ethnological material bequeathed to the Smithsonian in 1931; two pictorial engraved ivory drill bows and about ten additional engraved ivories. 2 pictorial engraved drill bows: <i>NMNH</i> : E360421, E360422	NMNH Accession# 113605
George Byron Gordon	1905/1907 Bering Sea coast from Nunivak Island to Cape Prince of Wales, Yukon and Kuskokwim Rivers and Southeast Alaska	American University of Pennsylvania Museum	Collected over 3,000 objects from eighteen villages along the Bering Sea Coast and Yukon-Kuskokwim region. Took over 300 photographs. Collected 7 pictorial engraved drill bows: <i>PENN</i> : NA454, NA455, NA456, NA457, NA460, NA461, NA1517	Gordon 1906; 1917 Kaplan and Barsness 1986:27
Daniel Neuman	1910-1920 Seward Peninsula	American Private collector	Served as a doctor in Nome between 1910-20 and made collections during social visits and medical trips to outlying villages. Donated 3000 objects to future Alaska State Museum, Juneau in 1920. Largest collection of drill bows with the "Nome" engraving style made for sale. Collected 11 pictorial engraved drill bows: <i>ASM</i> : II-A-2, II-A-3, II-A-4, II-A-5, II-A-7, II-A-8, II-A-	ASM Accession Neuman Anchorage Museum Accession #1972.066




			9, II-A-10, II-A-13, II-A-37 <i>AMRC</i> : 1972.066.001	Wallen 1994
Vilhjamur Stefansson	1911-12 Cape Smythe, Point Barrow, Point Hope	Canadian American Museum of Natural History	Explorer and archaeologist who collected over 12,000 artifacts in Point Barrow during 1911-1912. Local people brought him excavated artifacts in exchange for credit at Charles Brower's trading post. Collected 3 pictorial engraved drill bows: <i>AMNH</i> : 60.1/299, 60.1/934, 60.1/2140	AMNH Accession #1912-68 Brower 1994:244
William B. Van Valin	1917-1919 Point Barrow	Commercial collector University of Pennsylvania Museum	Between 1917-1919, Van Valin and his family lived in Point Barrow as part of the Wanamaker Expedition, making collections, excavating old sites, and taking still and motion photographs. Acquired a few engraved ivory implements including one engraved drill bow, mouthpiece and bone-capped drill. 1 engraved drill bow: <i>PENN</i> : NA4488	Kaplan and Barsness 1986:46
Francis Sayre	c.1920 northern coasts of Alaska and Diomedes Islands	American Private collector	Law professor who acquired 163 archaeological and ethnological objects from Alaska, Siberia and Canada. Collected 2 old drill bows with Little Diomedes style engraving: <i>NMNH</i> : A380771, E379814	NMNH Accession #153865
William Ockelford Oldman	1890s-1949 various sources including surplus from small British Museums	British Commercial collector and dealer	Prolific trade in tribal and ethnic arts with his business <i>W.O. Oldman, Ethnographical Specimens, London</i> ; produced a series of illustrated auction catalogues from 1901 to 1913; private museum in London home. Mrs. Dorothy K. Oldman sold the British Museum a large number of ethnological objects primarily from Alaska and Africa following husband's passing in 1949. Five pictorial engraved ivory drill bows in addition to engraved ivory snow knives, a pipe, and arrow	British Museum Accession #Am.1949.22 Wereldmuseum catalogue records Oldman 1976






			straightener. Collected 7 pictorial engraved drill bows: <i>BM</i> : Am1949.22.22, Am1949.22.23, Am1949.22.24, Am1949.22.25, Am1949.22.26 <i>Wereldmuseum, Rotterdam</i> : 34858, 34859	
John Borden	1927 Bering Strait islands, northwest Alaska and Canada, eastern Chukotka	American Field Museum	Trustee of the Field Museum; navigated the schooner <i>Northern Light</i> on a five-month collecting trip in 1927 called the Borden-Field Museum Alaska-Arctic Expedition Accession of 533 objects from Alaska and Canada. Purchased and traded for ivory carvings at Point Hope, Cape Prince of Wales, Little Diomed, King Island, Nome and East Cape, Siberia. Three pictorial engraved ivory drill bows including a drill bow from “Ockbyok, Chief of Cape Prince of Wales” Collected 3 pictorial engraved drill bows: <i>FM</i> : 177754, 177755, 177756	Field Museum Accession #1740 Borden 1928
George Rosengarten	c.1945-1980	Canadian Private collector	Founder of Eastern Electric and Eastern Packaging; amassed a large collection of Inuit and modern art while traveling for business Donated a sizeable collection of Inuit art to the Canadian Museum of Civilization. Three engraved drill bows and almost two-dozen miscellaneous engraved ivory carvings from Alaska and Canada. Collected 3 pictorial engraved drill bows: CMC: IV-X-887, IV-E-1116, IV-E-1161	CMC Accession Rosengarten The Gazette 2011





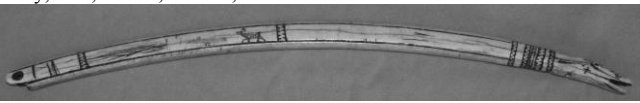
APPENDIX E


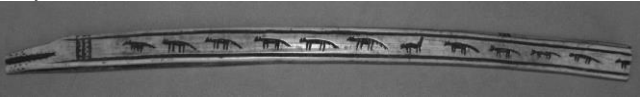
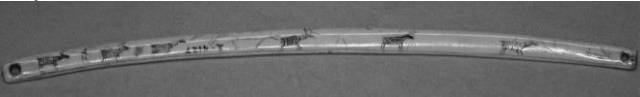

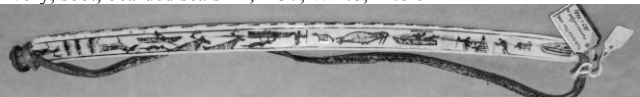
STUDY GROUP OF PICTORIAL ENGRAVED DRILL BOWS





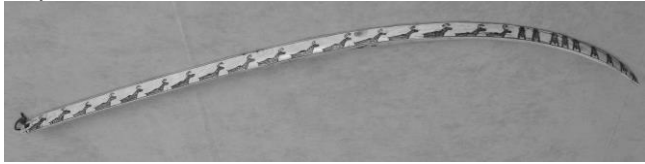
*Donors and sellers listed in italics for drill bows with unidentified field collectors.





Catalogue number	Year collected	Museum (current); accession number; materials; dimensions; image	Primary collector or *donor; location acquired	Regional style	Motifs	Tags
Am1855.1126.225	1848-1849	British Museum; Acc. 1855.1126; ivory, soot, bearded sealskin; L 31.4, W 1.6, D 1.05 cm 	William Hulme Hooper; Alaska	Indian Point	bowhead, caribou, caribou herd, caribou swimming, dog, dog sled, walrus, giant, rack, tent, umiaq, figures wrestling, hunting caribou, hunting walrus, whaling, shooting a bow	spring hunting, summer camp, multiples
Am6745	-1870	British Museum; Acc. Bragge; ivory, soot; L 35.1, W 1.3, D 1.6 cm 	<i>William Bragge</i> , Alaska	Indian Point	bearded seal, bowhead, caribou, caribou carcass, caribou skin, caribou swimming, flukes, fox, raven, seal, walrus, wolf, shaman, harpoon, hunting bag, kayak, rack, sod house, tent, dancing, hunting caribou, hunting walrus, whaling, shooting a bow, smoking a pipe	celebration, spiritual, spring hunting, tally
Am1855.1220.229	1855	British Museum; Acc. 1855.1220; ivory, soot, bearded sealskin; L 30.2, W 1.05, D .8 cm 	<i>Haslar Hospital; Lords of Admiralty</i> Alaska	Indian Point	bowhead, caribou, caribou fighting, caribou swimming, ducks, migrating birds, wolf, tree, bucket, cache, harpoon, kayak, sealskin float, sod house, umiaq, umiaq with sail, dancing, hunting caribou, hunting waterfowl, whaling, picking berries, pulling a seal, shooting a bow	spring hunting, summer camp, celebration, multiples



2-1291c	1894-1901	Phoebe A. Hearst Museum of Anthropology; Acc. 46; ivory, soot, bearded sealskin; L 34, W 1.2 cm 	Charles L. Hall; Alaska	Indian Point	brown bear, caribou, caribou swimming, dog sled, seal, figure with tail, ice chisel, kayak, paddle, rack, snare, tent, umiaq, hunting a seal, pulling a seal, barbed band, nucleated circle	spring hunting, fall hunting, winter village, multiples
Am1855.1126.226	1848-1849	British Museum; Acc. 1855.1126; ivory, baleen; L 33.1, W 2.1, D .95 cm 	William Hulme Hooper; Alaska	Indian Point	bearded seal, bowhead, caribou, caribou swimming, harpoon, kayak, sealskin float, umiaq, hunting caribou, whaling	spring hunting, multiples
33.238		Horniman Museum; ivory, soot; L 34.2, W 1.5, D 1.1 cm 	<i>Marlborough College;</i> Alaska	Indian Point	bearded seal, bowhead, caribou carcass, dog sled, ducks, killer whale, migrating birds, wolf, mound, shaman, horizontal figure, campfire, harpoon, hunting bag, kayak, rack, snowshoes, spear, tent, umiaq, hunting waterfowl, hunting walrus, whaling, barbed band, barbed band	spring hunting, summer camp, spiritual
E24556	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, soot, bearded sealskin; L 34.8, W 1.4, D 1.35 cm 	Lucien Turner; Norton Sound	Indian Point	kayak, firearm, barbed band, pronged line	spring hunting
E45346	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, black ink; L 31.9, W 1.2, D 1.1 cm 	Edward Nelson; Cape Nome	Indian Point	brown bear, bearded seal, caribou, ducks, seal, walrus, kayak, firearm, sod house, dancing, hunting caribou, hunting waterfowl, hunting seal	spring hunting, celebration, multiples




E24546	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; bone, lead, bearded sealskin; L 36.2, W 1.5, D .9 cm 	Lucien Turner; Norton Sound	Indian Point	seal	tally
E38782	1877-1879	Smithsonian National Museum of Natural History; Acc. 8133; ivory, soot, bearded sealskin, baleen; L 44.5, W 1.35, D 1.2 cm 	Edward Nelson; Kotzebue Sound	Indian Point	reindeer, figure with tail, herding reindeer, pronged line	fall hunting
E24554	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, soot; L 36, W 1.45, D .75 cm 	Lucien Turner; Norton Sound	Indian Point	caribou, hunting caribou, shooting a bow, barbed band, pronged line	fall hunting
E33186	1877-1878	Smithsonian National Museum of Natural History; Acc. 78A00080; ivory, soot, bearded sealskin; L 40.1, W 1.25, D 1.15 cm 	Edward Nelson; Kigiktauk	Indian Point	caribou, wolf, hunting caribou, shooting a bow, barbed band	fall hunting
E33191	1877-1878	Smithsonian National Museum of Natural History; Acc. 78A00080; ivory, soot; L 32.1, W 1.35, D 1 cm 	Edward Nelson; Unalakleet	Indian Point	caribou, wolf, barbed band, cross	multiples




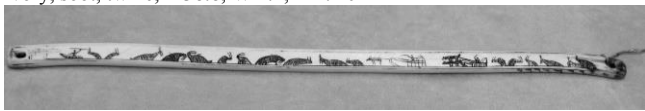
2-4123 E24419	-1898 1874- 1876	Phoebe A. Hearst Museum of Anthropology; Acc. 167; ivory, soot, metal; L 28.5, W 2.3, D 1.3 cm Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, soot; L 13.8, W 2, D 1.1 cm 	Rudolph Neumann; Alaska Lucien Turner; Norton Sound	Indian Point	brown bear, caribou, dog sled, wolf, figure with tail	tally
E313717	-1920	Smithsonian National Museum of Natural History; Acc. 64842; ivory, soot; L 27.8, W 1.6, D 1.2 cm 	William Hemsley Emory; St. Michael	Indian Point	caribou, wolf, barbed band, pronged line	tally
2-4127	-1898	Phoebe A. Hearst Museum of Anthropology; Acc. 167; ivory, soot; L 28.2, W 1.2, D 1.2 cm 	Rudolph Neumann; Alaska	Indian Point	ducks, caribou	
E33190	1877- 1878	Smithsonian National Museum of Natural History; Acc. 78A00080; ivory, soot; L 38, W 1.7, D 1 cm 	Edward Nelson; St. Michael	Indian Point	bowhead, caribou, ducks, seal, wolf, horizontal figure, kayak, snare, hunting caribou, hunting seal, whaling, shooting a bow, smoking a pipe	spring hunting, multiples
1886.1.695	1826	Pitt Rivers Museum; Acc. 1886.1; ivory, soot, bearded sealskin; L 37, W 1.8, D .8 cm 	Frederick W. Beechey; Kotzebue Sound	Indian Point	bearded seal, bowhead, caribou swimming, dog sled, ducks, ermine, walrus, ermine, shaman, tree, harpoon, ice pick, kayak, sealskin float, tent, umiaq, whaling charm, dancing in umiaq, hunting caribou, hunting seal, hunting walrus, whaling, pulling a kayak	spring hunting, spiritual, multiples



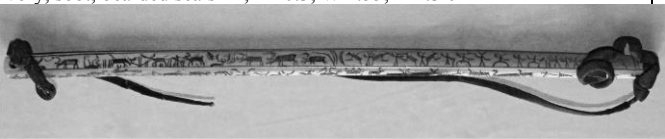
2-4124	-1898	Phoebe A. Hearst Museum of Anthropology; Acc. 167; ivory, soot; L 30.5, W 1.9, D .7 cm 	Rudolph Neumann; Alaska	Indian Point	bowhead, dog sled, migrating birds, polar bear, seal, walrus, figure with tail, axe, kayak, rack, sealskin float, spear, tent, umiaq, cutting up whale, hunting bear, hunting walrus, whaling, barbed line	spring hunting, winter village
E24537	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, soot; L 37.8, W 1.5, D .9 cm 	Lucien Turner; Norton Sound	Indian Point	caribou, dog, flukes, seal, wolf, figure with tail	tally, multiples
E33184	1877-1878	Smithsonian National Museum of Natural History; Acc. 78A00080; ivory, soot, lead, bearded sealskin; L 34.7, W 1.5, D 1.12 cm 	Edward Nelson; St. Michael	Indian Point	kayak, spear	spring hunting, multiples
1969.34.9	-1830	Pitt Rivers Museum; Acc. 1969.34; ivory, soot, bearded sealskin; L 33.1, W 1.1, D .9 cm 	Edward Belcher; Alaska	Indian Point	caribou swimming, barbed line	
E24540	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, lead, bearded sealskin; L 58.2, W 1.6, D 1.5 cm 	Lucien Turner; Norton Sound	Indian Point	caribou skin, caribou swimming, walrus, barbed band	tally




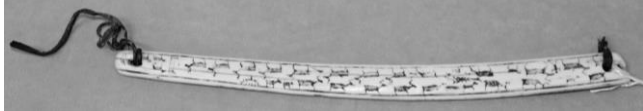
97-84-457a	1895	University of Pennsylvania Museum of Archaeology and Anthropology ivory, lead, bearded sealskin; L 34.4, W 1.5, D .9 cm		Benjamin Sharp; Indian Point, Siberia	Indian Point	bowhead, caribou, ducks, walrus, wolf skin, cache, harpoon, ship, sod house, umiaq, hunting walrus, whaling, nucleated circle	sailing ship, spring hunting, tally
27.4.61/32	1778	Horniman Museum; ivory, soot, sinew, bead; L 48, W 1.5, D 1.6 cm		Captain James Cook; Chukotka	East Cape	bearded seal, bowhead, caribou, caribou swimming, dog, dog sled, ducks, polar bear, raven, walrus, tree, figures wrestling, figure with tail, palraiuyuk, walrus transformation, armor, kayak, paddle, sealskin float, umiaq, cutting up whale, hunting caribou, hunting waterfowl, hunting seal, whaling, shooting a bow	spring hunting, myth creature, warfare
Am1949.22.23	1890s -1949	British Museum; Acc. 1949.22; ivory, soot; L 45.4, W 1.62, D 1.05 cm		William Ockelford Oldman; Alaska	East Cape	bearded seal, bowhead, caribou herd, caribou swimming, dog sled, flukes, walrus, bird dancer, drummer, cache, fishnet, rack, kayak, sod house, umiaq, dancing, hunting caribou, hunting seal, hunting walrus, whaling, pulling a seal, shooting a bow, smoking a pipe	celebration, spring hunting, summer camp, multiples
NA9387	-1922	University of Pennsylvania Museum of Archaeology and Anthropology ivory, soot; L 46.8, W 1.5, D 1.3 cm		Walter S. Wheeler; Alaska	East Cape	bowhead, dog, dog sled, flukes, migrating birds, walrus, Westerner, hunting blind, cache, frame house, harpoon, kayak, sealskin float, ship, sod house, tent, umiaq, whaling charm, dancing, hunting walrus, whaling, trading	spring hunting, celebration, Westerner, sailing ship

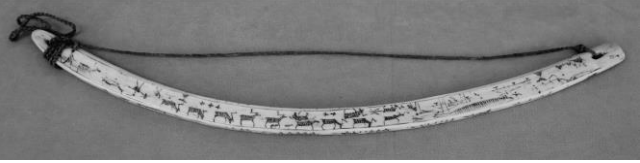



Am1970.06.1	-1970	<p>British Museum; Acc. 1970.06; ivory, soot; L 39.4, W 1.65, D .75 cm</p> 	<p><i>Salisbury & South Wiltshire Museum;</i> Alaska</p>	East Cape	<p>bowhead, caribou, dog, dog sled, ducks, geese, migrating birds, seal, walrus, walrus on ice, drummer, figure with tail, hunting blind, cache, harpoon, kayak, sealskin float, sod house, tent, umiaq, umiaq with sail, dancing, hunting caribou, hunting waterfowl, hunting seal, hunting walrus, whaling, pulling a seal, smoking a pipe, shooting a bow</p>	<p>spring hunting, celebration, tally</p>
1886.1.694	1826	<p>Pitt Rivers Museum; Acc. 1886.1; ivory, soot; L 31.8, W 1.1, D .75 cm</p> 	<p>Frederick W. Beechey; Kotzebue Sound</p>	East Cape	<p>caribou, caribou herd, caribou swimming, dog, geese, polar bear, raven, walrus, drummer, kokogiak, plant, tree, cache, hunting bag, kayak, paddle, qagri, rack, snare, sod house, spear, ice chisel, yurt, umiaq, umiaq with sail, dancing in qagri, hunting bear, hunting caribou, hunting walrus, pulling a kayak, pulling a seal, shooting a bow, smoking a pipe, travelling by umiaq</p>	<p>celebration, summer camp, spring hunting, winter village, myth creature, multiples</p>

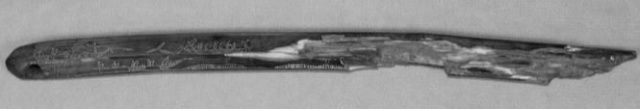



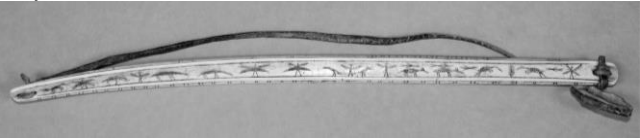
1886.1.693	1826	Pitt Rivers Museum; Acc. 1886.1; ivory, soot; L 35.2, W 1.3, D 1 cm 	Frederick W. Beechey; Kotzebue Sound	East Cape	bearded seal, caribou, caribou carcass, caribou herd, caribou swimming, dog, ducks, fish, migrating birds, raven, bird dancer, caribou dancer, palraiuyuk, seal transformation, figure waving tail, tree, cache, cooking pot, fishnet, kayak, rack, snare, sod house, spear, tent, umiaq, hunting caribou, hunting waterfowl, pulling a seal, seining for fish, shooting a bow, smoking a pipe	myth creature, spring hunting, summer camp, celebration, multiples
Am1855.1126.227	1848-1854	British Museum; Acc. 1855.1126; ivory, red ocher, lead; L 33.4, W 1.4, D .7 cm 	Spark; Port Clarence?	East Cape	caribou, caribou carcass, caribou swimming, migrating birds, seal, walrus, Westerner, kayak, sealskin float, firearm, sled, tent, hunting caribou, hunting seal, hunting walrus, metalworking, shooting a bow, smoking a pipe	spring hunting, summer camp, Westerner
1886.1.692	1826	Pitt Rivers Museum; Acc. 1886.1; ivory, soot; L 40.3, W 1.1, D 1.1 cm 	Frederick W. Beechey; Kotzebue Sound	East Cape	bowhead, ducks, migrating birds, polar bear, walrus, figures wrestling, figure with a tail, horizontal figure, tirisuk, harpoon, kayak, spear, umiaq, dancing, hunting waterfowl, hunting seal, hunting walrus, whaling, pulling a seal, smoking a pipe, warfare	spring hunting, myth creature, warfare, celebration

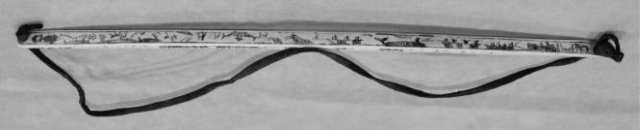


E45016	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot, black ink; L 39.6, W 1.3, D 1.1 cm 	Edward Nelson; Sledge Island	East Cape	bowhead, dog, ducks, raven, walrus, figure with a tail, cache, ice pick, kayak, sealskin float, sod house, spear, hunting waterfowl, whaling, ice fishing, pulling a seal, sexual activity, warfare	spring hunting, winter village, warfare
E45333	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot, lead; L 42.5, W 1.25, D 1.1 cm 	Edward Nelson; Cape Nome	East Cape	bowhead, caribou, caribou swimming, dog, fox, migrating birds, seal, walrus, myth creature, drummer, figure with tail, Westerner, kayak, paddle, rack, sealskin float, ship, snare, tent, umiaq, dancing, hunting caribou, hunting walrus, whaling, shooting a bow, smoking a pipe, trading	Westerner, celebration, spring hunting, sailing ship, myth creature, summer camp, multiples
Am1949.22.22	1890s-1949	British Museum; Acc. 1949.22; ivory, soot; L 45.6, W 1.4, D 1.2 cm 	William Ockelford Oldman; Alaska	East Cape	bowhead, caribou, caribou swimming, dog sled, ducks, polar bear, walrus, tree, figures wrestling, figure waving tail, drummer, shaman, cache, rack, harpoon, kayak, sealskin float, sod house, spear, tent, umiaq, dancing, dancing in umiaq, hunting bear, hunting caribou, hunting walrus, whaling, pulling a seal, sexual activity, smoking a pipe, barbed band	spring hunting, winter village, celebration, spiritual
SJ-II-X-224	-1895	Sheldon Jackson Museum; Acc. Absent; ivory, soot, twine; L 38.8, W 1.4, D 1.1 cm 	Alaska	East Cape	dog sled, ducks, polar bear, walrus, harpoon, kayak, tent, hunting walrus	spring hunting



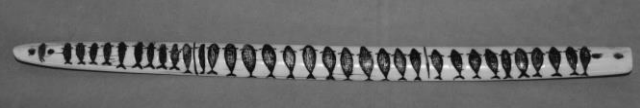


1884.140.488	-1874	Pitt Rivers Museum; Acc. 1884.140; ivory, soot; L 32.8, W 1.25, D 1.1 cm 	<i>Augustus Henry Lane Fox Pitt Rivers;</i> Alaska	Cape Prince of Wales	bowhead, caribou, caribou swimming, caribou herd, ducks, geese, polar bear, wolf, palraiyyuk, tree, cache, kayak, rack, sod house, spear, ice chisel, umiaq, umiaq with sail, dancing, hunting bear, hunting caribou, hunting waterfowl, whaling, pulling a seal, sexual activity, shooting a bow, travelling by umiaq	spring hunting, summer camp, myth creature, celebration, multiples
Am1949.22.26	1890s -1949	British Museum; Acc. 1949.22; ivory, soot; L 43.4, W 1.5, D 1.3 cm 	William Ockelford Oldman; Alaska	Cape Prince of Wales	bear, bowhead, caribou, caribou carcass, caribou swimming, dog, ducks, fox, migrating birds, wolf, caribou dancer, figure with tail, kokogiak, palraiyyuk, tirisuk, shaman in qagri, rack, harpoon, kayak, tent, umiaq, qagri, dancing, hunting waterfowl, whaling, pulling a seal	spring hunting, celebration, myth creature, spiritual, multiples
15324	1892	University of Pennsylvania Museum of Archaeology and Anthropology ivory, soot, bearded sealskin; L 40.3, W 1.55, D 1.3 cm 	Miles C. Gorgas; Alaska	Cape Prince of Wales	bowhead, brown bear, caribou, caribou carcass, caribou swimming, seal, walrus, shaman, thunderbird, bird dancer, caribou dancer, harpoon, kayak, snare, umiaq, dancing, hunting caribou, hunting walrus, whaling	celebration myth creature, spring hunting, spiritual




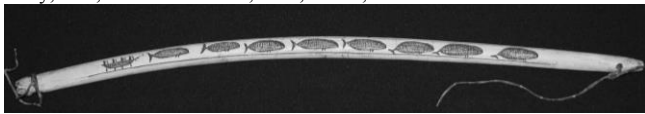
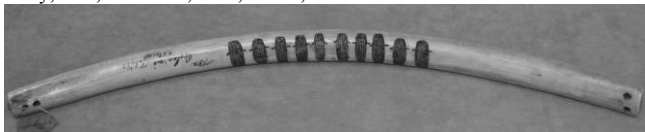

E43360	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot, red ocher; L 44.4, W 1.75, D 1.1 cm 	Edward Nelson; Cape Prince of Wales	Cape Prince of Wales	bearded seal, bowhead, brown bear, caribou, caribou swimming, dog, dog sled, ducks, flukes, raven flying, walrus, walrus on ice, walrus with young, figure with tail, shaman in qagri, tree, cache, harpoon, kayak, paddle, qagri, rack, sealskin float, firearm, sod house, tent, umiaq, whaling charm, dancing, hunting bear, hunting caribou, hunting walrus, whaling, pulling a seal	spring hunting, summer camp, spiritual, celebration
E64153	1877-1881	Smithsonian National Museum of Natural History; Acc. 82A00003; ivory, soot, bearded sealskin; L 31.6, W 1.8, D 1.1 cm 	Edward Nelson; Hotham Inlet	Cape Prince of Wales	bowhead, seal, walrus, seal transformation, kayak, sealskin float, umiaq, hunting seal, hunting walrus, whaling	spring hunting
1884.68.20	1826-1827	Pitt Rivers Museum; Acc. 1884.68; ivory, soot; L 34.3, W 1.1, D 1.12 cm 	Edward Belcher; Alaska	Cape Prince of Wales	bearded seal, bowhead, caribou, caribou carcass, caribou fighting, caribou herd, caribou swimming, joined figures, shaman divided, shaman in qagri, figure waving tail, qagri, ice chisel, umiaq, cutting up caribou, dancing, hunting caribou, whaling	celebration. spring hunting, myth creature, spiritual, multiples
Am1855.1220.227	1855	British Museum; Acc. 1855.1220; ivory, soot, bearded sealskin; L 28.8, W 2, D .92 cm 	<i>Haslar Hospital; Lords of Admiralty</i> Alaska	Cape Prince of Wales	caribou, caribou swimming, migrating birds, shaman, hunting blind, kayak, snare, hunting caribou	fall hunting, spiritual




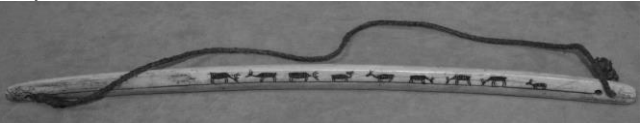


Am8209	1826-1827	British Museum; Acc. Franks; ivory, soot, sinew; L 38.2, W 1.8, D .9 cm 	Edward Belcher; Alaska	Cape Prince of Wales	bowhead, caribou, flukes, migrating birds, walrus, giant, shaman with animals, figure with tail, harpoon, kayak, paddle, sealskin float, sod house, ice chisel, umiaq, whaling, hunting walrus, pulling a seal	spring hunting, myth creature, spiritual
Am1970.06.2	-1970	British Museum; Acc. 1970.06; ivory, soot; L 34.6, W 2.05, D 1.6 cm 	<i>Salisbury & South Wiltshire Museum;</i> Alaska	Cape Prince of Wales	caribou, dancing	celebration
Am9368	1875	British Museum; Acc. Simpson; ivory, red ocher, soot; L 40.4, W 1.3, D 1.05 cm 	<i>William Sparrow Simpson;</i> Port Clarence?	Cape Prince of Wales	caribou, caribou herd, wolf, snare, hunting caribou, shooting a bow	fall hunting, multiples
Am8210	1826-1827	British Museum; Acc. Franks; ivory, soot, bearded sealskin; L 43.1, W 1.4, D 1.1 cm 	Edward Belcher; Alaska	Cape Prince of Wales	bearded seal, bowhead, brown bear, caribou, caribou swimming, ducks, migrating birds, whale, walrus, seal transformation, cache, rack, harpoon, hunting blind, ice chisel, kayak, sled, sod house, umiaq, cutting up whale, hunting bear, hunting caribou, hunting waterfowl, hunting seal, whaling, hunting walrus, shooting a bow, nucleated circle	spring hunting, myth creature


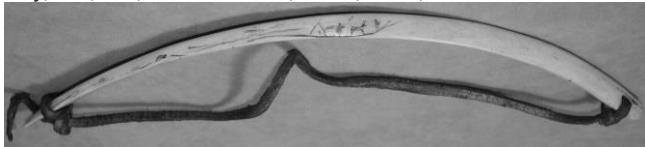



II-A-13	1910-1920	Alaska State Museum; Acc. Neuman; ivory; L 28.12, W 1.82, D 1.3 cm 	Daniel Neuman; Seward Peninsula	Cape Prince of Wales	bowhead, walrus, harpoon, umiaq, sealskin float, whaling	spring hunting
1884.68.22	-1874	Pitt Rivers Museum; Acc. 1884.68; ivory, soot, bearded sealskin; L 21.1, W 1.1, D .9 cm 	<i>Augustus Henry Lane Fox Pitt Rivers;</i> Alaska	Cape Prince of Wales	bowhead, seal, walrus, tazmanian, bucket, cache, sod house, spear, tent, umiaq, dancing, hunting seal, picking berries, whaling, warfare	spring hunting, celebration, myth creature, summer camp, warfare, multiples
Am1985.Q.256	-1985	British Museum; Acc. 1985.Q; ivory, soot, bearded sealskin; L 40.2, W 1.72, D 1.05 cm 	Alaska	Cape Prince of Wales	bowhead, caribou, myth creature, snare, dancing, hunting caribou, shooting a bow, cross	fall hunting, celebration, myth creature
Am1855.1220.228 ab	1855	British Museum; Acc. 1855.1220; ivory, soot, bearded sealskin; L 21.4, W 1.6, D 1.1 cm 	<i>Haslar Hospital; Lords of Admiralty</i> Alaska	Cape Prince of Wales	bearded seal, bowhead, caribou, migrating birds, wolf, kokogiak, umiaq, dancing, hunting caribou, hunting seal, whaling, shooting a bow, nucleated circle	spring hunting, myth creature, celebration
II-A-9	1910-1920	Alaska State Museum; Acc. Neuman; ivory, lead, bearded sealskin; L 46.8, W 2.2, D 1.1 cm 	Daniel Neuman; Cape Prince of Wales	Cape Prince of Wales	caribou, bird dancer, myth creature, tree, ladder line	myth creature, celebration, multiples






Am1855.1126.224	1848-1849	British Museum; Acc. 1855.1126; ivory, soot, bearded sealskin; L 36, W 1.12, D .9 cm 	William Hulme Hooper; Alaska	Cape Prince of Wales	bowhead, dog, ducks, seal, walrus, figure with tail, hunting blind, bola, cache, harpoon, dog sled, sod house, umiaq, dancing, high kick, hunting waterfowl, hunting seal, hunting walrus, whaling	spring hunting, celebration
1884.98.47	1826-1827	Pitt Rivers Museum; Acc. 1884.98; ivory, soot; L 37.4, W 1.7, D 1.1 cm 	Edward Belcher; between Icy Cape and Point Barrow	Cape Prince of Wales	bearded seal, bowhead, caribou, caribou swimming, dog, fish, flukes, bird dancer, giant, figures wrestling, horizontal figure, palraiuyuk, tazmanian, shaman with animals, mound, cache, fishnet, kayak, spear, umiaq, dancing, hunting caribou, whaling, seining for fish, shooting a bow, barbed band	myth creature, spring hunting, summer camp, spiritual
1884.98.48	1826-1827	Pitt Rivers Museum; Acc. 1884.98; ivory, soot, bearded sealskin; L 40.5, W 1.7, D 1.3 cm 	Edward Belcher; between Icy Cape and Point Barrow	Cape Prince of Wales	bird, bowhead, caribou, caribou swimming, ducks, walrus, wolf, wolverine skin, bird dancer, caribou dancer, giant, palraiuyuk, tazmanian, horizontal figure, harpoon, kayak, paddle, sealskin float, umiaq, cutting up whale, carrying an umiaq, hunting waterfowl, hunting walrus, whaling, shooting a bow	myth creature, spring hunting, celebration, multiples


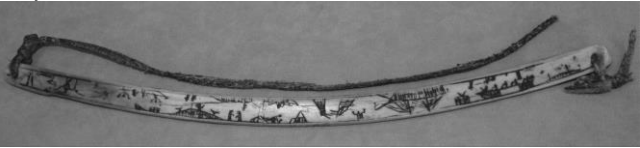



Am9367	1875	British Museum; Acc. Simpson; ivory, soot; L 33.3, W 1.52, D .9 cm 	<i>William Sparrow Simpson</i> ; Alaska	Cape Prince of Wales	bowhead, caribou, caribou swimming, migrating birds, walrus, whale, giant, shaman with animals, horizontal figure, cache, fishnet, harpoon, kayak, qagri, rack, sealskin float, sod house, tent, umiaq, hunting walrus, whaling, pulling a seal, sexual activity, barbed band, bifurcated line	summer camp, spring hunting, myth creature, spiritual, multiples
Am1983.27.1	1826-1827	British Museum; Acc. 1983.27; ivory, soot, baleen, beads; L 34.1, W 1.95, D 1.05 cm 	Frederick W. Beechey; Alaska	Point Hope	bear, caribou skin, wolf, paddle, ice chisel, umiaq, hunting bear, shooting a bow, travelling by umiaq, nucleated circle	spring hunting, tally
1886.1.697	1826	Pitt Rivers Museum; Acc. 1886.1; ivory, soot; L 41.1, W 2.5, D 1 cm 	Frederick W. Beechey; Kotzebue Sound	Point Hope	bearded seal skin, beluga skin, bowhead skin	tally, multiples
1884.33.31	-1881	Pitt Rivers Museum; Acc. 1884.33; ivory, soot, commercial leather; L 36.6, W 2.18, D .9 cm 	<i>Augustus Henry Lane Fox Pitt Rivers</i> ; Alaska	Point Hope	bearded seal skin, pulling a seal, nucleated circle	tally
1886.1.696	1826	Pitt Rivers Museum; Acc. 1886.1; ivory, soot; L 39.7, W 1.1, D .95 cm 	Frederick W. Beechey; Kotzebue Sound	Point Hope	beluga skin, bowhead, wolf, harpoon, umiaq, whaling	spring hunting, tally, multiples

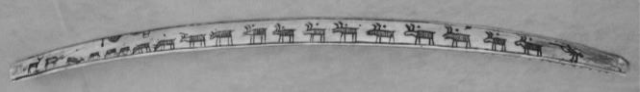
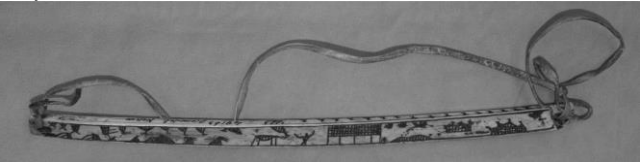



Am.1369	1860-1869	British Museum; Acc. Christy; ivory, soot; L 41.7, W 2.3, D 1.22 cm 	<i>Henry Christy</i> ; Alaska	Point Hope	bowhead, flukes, paddle, sealskin float, umiaq, whaling	spring hunting, tally
4488	1889-1905	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, bearded sealskin; L 44.5, W 1.7, D 1.2 cm 	John Hackman; Point Hope	Point Hope	caribou, flukes, wolf, barbed line, nucleated circle	tally
SJ-II-K-106	1887-1898	Sheldon Jackson Museum; Acc. Jackson; ivory, lead, bearded sealskin; L 56, W 2.1, D 1.62 cm 	Sheldon Jackson; Point Hope	Point Hope	bowhead, caribou, polar bear, seal, paddle, sealskin float, umiaq, hunting bear, hunting caribou, whaling, shooting a bow	spring hunting
60.1/8339	-1915	American Museum of Natural History; Acc. 1915-56; ivory, soot, bearded sealskin; L 61, W 2.1, D 1.1 cm 	Alanson B. Skinner; Alaska	Point Hope	bowhead, paddle, sealskin float, umiaq, whaling	spring hunting, tally
E89425	1881-1883	Smithsonian National Museum of Natural History; Acc. 13712; ivory, soot, red ocher; L 38, W 2.4, D 1.05 cm 	John Murdoch; Point Barrow	Point Hope	bearded seal skin, bowhead skin	tally
60/1731	1892-1899	American Museum of Natural History; Acc. 1899-13; ivory, soot; L 35.2, W 2, D 1 cm 	Miner Bruce; Alaska	Point Hope	bowhead, paddle, tent, umiaq, whaling	spring hunting


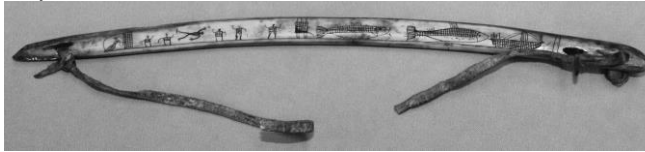
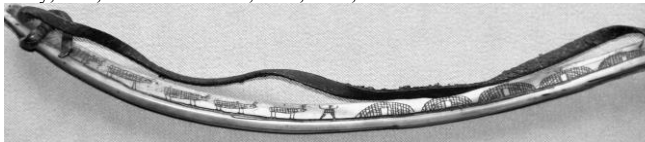

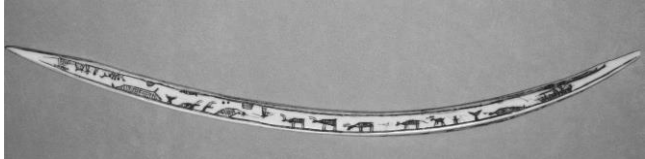
SJ-II-K-192	1891	Sheldon Jackson Museum; Acc. Jackson; ivory, soot; L 37, W 1.12, D 1.12 cm 	Sheldon Jackson; Point Hope	Point Hope	bear, bowhead, caribou, harpoon, paddle, umiaq, whaling, sexual activity	spring hunting
E63805	1877-1881	Smithsonian National Museum of Natural History; Acc. 82A00003; bone, soot, bead; L 33.9, W 1.7, D 1.32 cm 	Edward Nelson; Point Hope	Point Hope	caribou	tally
II-A-4463	-1968	Alaska State Museum; Acc. 69-33-2; ivory, soot; L 26.5, W 1.5, D 1.15 cm 	Catherine Boyd; Shishmaref	Point Hope	bear, bowhead, caribou, ducks, walrus, wolf, figure with tail, umiaq, hunting waterfowl, hunting bear, shooting a bow	spring hunting
E63803	1877-1881	Smithsonian National Museum of Natural History; Acc. 82A00003; ivory, soot, sinew; L 37.9, W 1.85, D 1 cm 	Edward Nelson; Point Hope	Point Hope	caribou, nucleated circle	
7178	1911-1923	Burke Museum of Natural History and Culture; Acc. 2076; ivory, soot; L 38.6, W 2.6, D .92 cm 	Joseph F. Bernard; Point Hope	Point Hope	walrus, kayak, umiaq, firearm, hunting walrus	spring hunting, multiples
II-A-6466	1964-1980	Alaska State Museum; Acc. 80-30-965; ivory, lead; L 49.15, W 2.08, D 1.7 cm 	Keith and Alice Fuller; Alaska	Point Hope	bowhead, dog sled, fish, axe, cache, cooking pot, frame house, paddle, sealskin float, umiaq, whaling, playing kickball	spring hunting, summer camp, winter village

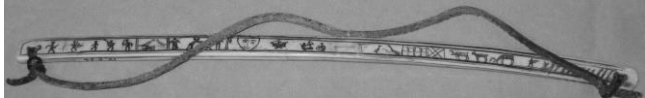

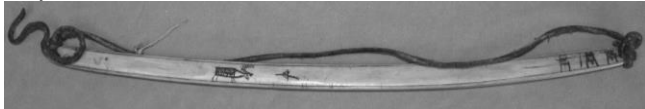


177754	1927	The Field Museum; Acc. 1927.1740; ivory, soot, bearded sealskin; L 38.2, W 2.1, D 1.2 cm 	John Borden; Point Hope	Point Hope	fishnet, spear, umiaq	spring hunting
208880	-1946	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, soot, lead, bearded sealskin; L 35.5, W 1.9, D 1.5 cm 	Judge Nathan Bijur; Point Hope	Point Hope	reindeer, seal, tent	
67-9-10/144	-1967	Peabody Museum of Archaeology and Ethnology; Acc. 67-9-10; ivory, soot; L 39.8, W 2, D 1 cm 	<i>Boston Athenaeum</i> ; Alaska	Little Diomede	bowhead, caribou, flukes, migrating birds, walrus, walrus with young, armor, harpoon, kayak, paddle, sealskin float, spear, umiaq, whaling charm, hunting seal, hunting walrus, whaling, shooting a bow, warfare, barbed band	spring hunting, warfare
ET16060	1877- 1881	Smithsonian National Museum of Natural History; Acc. 999999; ivory, soot, commercial leather, wire; L 34.1, W 1.8, D .95 cm 	Edward Nelson; Alaska	Little Diomede	bowhead, ducks, migrating birds, walrus, horizontal figure, harpoon, kayak, sealskin float, tent, umiaq, hunting walrus, whaling, shooting a bow, barbed line	spring hunting, summer camp
E43931	1877- 1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 30.7, W 1.45, D .65 cm 	Edward Nelson; Nubviukhchuga luk	Little Diomede	bowhead, caribou, dog, ducks, flukes, migrating birds, seal, walrus, walrus with young, horizontal figure, harpoon, kayak, rack, sealskin float, tent, umiaq, dancing, hunting caribou, hunting walrus, whaling, shooting a bow	spring hunting, celebration, multiples


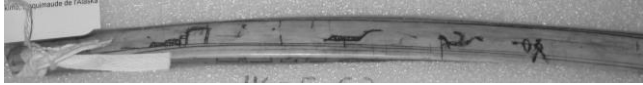


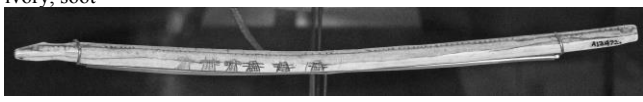

E63623	1877-1881	Smithsonian National Museum of Natural History; Acc. 82A00003; ivory, soot, bearded sealskin; L 33.4, W 1.3, D 1 cm 	Edward Nelson; Diomed Islands	Little Diomed	bowhead, ducks, migrating birds, polar bear, walrus, wolf, bird dancer, kayak, paddle, sealskin float, ship, spear, umiaq, hunting waterfowl, hunting walrus, barbed band, pronged line	sailing ship, spring hunting, celebration
E63622	1877-1881	Smithsonian National Museum of Natural History; Acc. 82A00003; ivory, soot, bearded sealskin; L 33.5, W 2, D .9 cm 	Edward Nelson; Diomed Islands	Little Diomed	bearded seal, bowhead, ducks, walrus, walrus with young, kayak, sealskin float, umiaq, hunting waterfowl, hunting walrus, whaling, smoking a pipe	spring hunting, multiples
E379814	-1939	Smithsonian National Museum of Natural History; Acc. 153865; ivory, soot, bearded sealskin; L 21, W .8, D .65 cm 	Francis Sayre; Point Hope	Little Diomed	tent, barbed line	summer camp
UA74-067-0011A	c.1910	University of Alaska Museum of the North; Acc. UA74-067; ivory, soot; L 24.4 cm 	Harold McCracken; Little Diomed	Little Diomed	bowhead, polar bear, walrus, wolf, kayak, tent, umiaq, hunting bear, whaling	spring hunting
60/1201	-1896	American Museum of Natural History; Acc. 1896-42; ivory, soot; L 24.6, W 1.1, D .7 cm 	S. Kirschberg; Alaska	Little Diomed	bowhead, caribou swimming, ducks, flukes, migrating birds, walrus, kayak, rack, tent, umiaq, hunting waterfowl, hunting caribou, hunting walrus, whaling, barbed line	spring hunting, summer camp



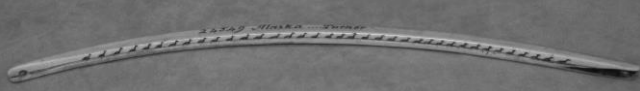
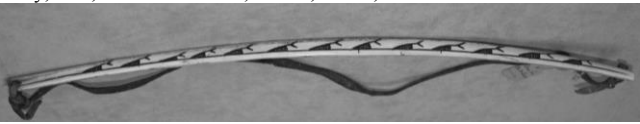
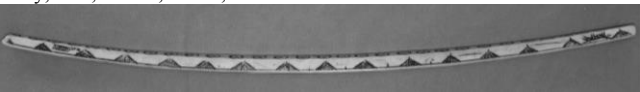

A380771	-1939	Smithsonian National Museum of Natural History; Acc. 153865; ivory, soot; L 10.7, W 1.22, D .65 cm 	Francis Sayre; Diomedede Islands	Little Diomedede	bowhead, migrating birds, umiaq	spring hunting
E48518	1877-1881	Smithsonian National Museum of Natural History; Acc. 0; ivory, soot, bearded sealskin; L 32.9, W 1.5, D .92 cm 	Edward Nelson; Kotzebue Sound	Little Diomedede	bowhead, walrus, wolf, palraiuyuk, mound, harpoon, kayak, sealskin float, ship, sled, tent, umiaq, hunting walrus, whaling, hunting wolf, sexual activity	sailing ship myth creature, spring hunting
ET16050	1877-1881	Smithsonian National Museum of Natural History; Acc. 999999; ivory, soot; L 24, W .95, D .7 cm 	Edward Nelson; Alaska	Little Diomedede	beluga, migrating birds, seal, walrus, horizontal figure, kayak, sealskin float, hunting walrus, whaling	spring hunting
NA456	1905	University of Pennsylvania Museum of Archaeology and Anthropology ivory, soot, bearded sealskin; L 32.5, W 1.4, D .65 cm 	George B. Gordon; Nunivak Island	Little Diomedede	caribou, caribou swimming, migrating birds, house on posts, umiaq, pulling a seal, warfare, pronged line	spring hunting, warfare, multiples
193412	-1936	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, soot; L 46.5, W 2.5, D 1.05 cm 	William M. Fitzhugh; Nome	Little Diomedede	animal skin, bearded seal, bowhead, caribou, geese, seal, walrus, cache, kayak, paddle, rack, sealskin float, sod house, tent, umiaq, hunting waterfowl, hunting walrus, whaling, pulling a seal	spring hunting, multiples






E44209	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 33.7, W 1.55, D .8 cm 	Edward Nelson; Cape Darby	Little Diomede	caribou, caribou herd, caribou swimming, ducks, gray whale, seal, figure with tail, kayak, paddle, firearm, sod house, tent, hunting caribou, hunting seal, whaling	spring hunting, fall hunting, tally, multiples
E49163	1877-1881	Smithsonian National Museum of Natural History; Acc. 0; ivory, soot, bearded sealskin; L 31, W 1.5, D .9 cm 	Edward Nelson; Diomede Islands	Little Diomede	bowhead, ducks, polar bear, walrus, wolf skin, myth creature, house on posts, tent, barbed line	winter village, tally
2-4120	-1898	Phoebe A. Hearst Museum of Anthropology; Acc. 167; ivory, soot, bearded sealskin; L 55, W 2.3, D 1 cm 	Rudolph Neumann; Alaska	Little Diomede	bowhead, walrus, wolf, drummer, figure with tail, kayak, qagri, rack, tent, umiaq, dancing in qagri, hunting walrus, whaling, cross	spring hunting, summer camp, celebration
2-4119	-1898	Phoebe A. Hearst Museum of Anthropology; Acc. 167; ivory, soot, bearded sealskin; L 43.5, W 1.8, D 1.3 cm 	Rudolph Neumann; St. Michael	Little Diomede	caribou skin, cache, kayak, rack, sod house, tent	summer camp, tally
E44465	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 32.4, W 1.4, D .7 cm 	Edward Nelson; Cape Nome	Little Diomede	fox, ducks, migrating birds, seal	

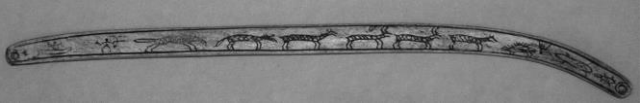
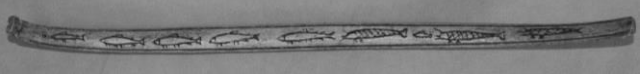

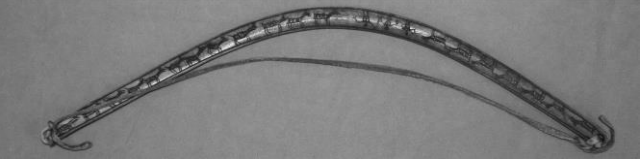


SJ-II-P-13a	1887-1898	Sheldon Jackson Museum; Acc. Jackson; ivory, soot, bearded sealskin; L 51, W 1.7, D 1.4 cm 	Sheldon Jackson; Alaska	Little Diomede	geese, walrus, harpoon, kayak, rack, sealskin float, spear, tent, hunting waterfowl, hunting walrus	spring hunting
SJ-II-J-91a	1903-1906	Sheldon Jackson Museum; Acc. 369f; ivory, lead, bearded sealskin; L 28, W 1.2, D 1.1 cm 	John White; Nome	Little Diomede	dog sled, ducks, fish, walrus, horizontal figure, house on posts, snare, umiaq with sail, dancing	souvenir, celebration
NA460	1905	University of Pennsylvania Museum of Archaeology and Anthropology; ivory, lead, bearded sealskin; L 21, W .9, D .65 cm 	George B. Gordon; Cape Prince of Wales	Little Diomede	reindeer, house on posts, ice chisel, tent, yurt, herding reindeer, pulling a seal	souvenir, summer camp
IV-E-58	1868-1885	Canadian Museum of Civilization; Acc. Mercier; ivory, soot, bearded sealskin; L 30.7, W 1.05, D .6 cm 	Francois Mercier; Alaska	Unalakleet	bowhead, caribou, caribou swimming, dog, seal, walrus, wolf, sealskin float, tent, umiaq, hunting caribou, hunting seal, hunting walrus, whaling, shooting a bow	spring hunting
IV-E-54	1868-1885	Canadian Museum of Civilization; Acc. Mercier; ivory, lead; L 37.6, W 1.5 cm 	Francois Mercier; Alaska	Unalakleet	bowhead, caribou, ducks, flukes, seal, walrus, whale, myth creature, palraiuyuk, armor, firearm, sod house, umiaq, umiaq on rack, dancing, hunting caribou, hunting seal, whaling, pulling a seal, barbed band	spring hunting, celebration, myth creature


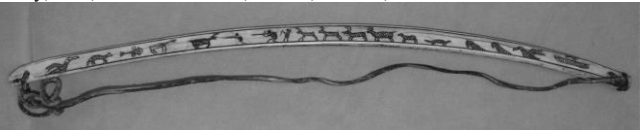


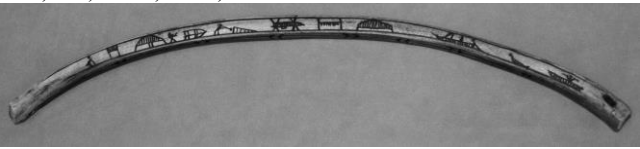
IV-E-56	1868-1885	Canadian Museum of Civilization; Acc. Mercier; ivory, soot, bearded sealskin; L 40.2, W 1.52 	Francois Mercier; Norton Sound	Unalakleet	animal skin, brown bear, caribou, dog, dog sled, ducks, geese, tree, figures wrestling, drill bow, frame house, kayak, mask, paddle, firearm, snare, spear, tent, umiaq, hunting bear, hunting caribou, shooting a bow, warfare, nucleated circle	spring hunting, summer camp, warfare, multiples
E38521	1877-1879	Smithsonian National Museum of Natural History; Acc. 8133; ivory, soot, bearded sealskin; L 36, W 1.5, D 1.1 cm 	Edward Nelson; Shaktoolik	Unalakleet	caribou	tally, multiples
E38522	1877-1879	Smithsonian National Museum of Natural History; Acc. 8133; ivory, soot, bearded sealskin; L 30.6, W 1.4, D .95 cm 	Edward Nelson; Shaktoolik	Unalakleet	caribou, flukes, wolf skin, horizontal figure, firearm, hunting caribou	tally, fall hunting
E33183	1877-1878	Smithsonian National Museum of Natural History; Acc. 78A00080; ivory, soot, bearded sealskin; L 34.8, W 1.4, D 1.4 cm 	Edward Nelson; Kigiktaulik	Unalakleet	figure	
E75461/E75462	1884	Smithsonian National Museum of Natural History; Acc. 15716; ivory, soot; L 38, W 2.4, D 1.05 cm 	John McLean; Baranof Island, Sitka	Unalakleet	ducks, fox, kayak, dancing, hunting waterfowl, barbed band	spring hunting, celebration




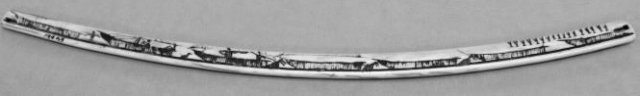

IV-E-55	1868-1885	Canadian Museum of Civilization; Acc. Mercier; ivory, lead; L 32.3, W 1.82 cm 	Francois Mercier; Norton Sound	Unalakleet	walrus, rack, sod house, tent, umiaq	summer camp
IV-E-53	1868-1885	Canadian Museum of Civilization; Acc. Mercier; ivory, soot; L 43.4, W 2.4 cm 	Francois Mercier; Norton Sound	Unalakleet	ducks, geese, cache, sod house, hunting waterfowl, shooting a bow	spring hunting
IV-E-1116	c.1945-80	Canadian Museum of Civilization; Acc. 1982-031-040; ivory, lead; L 46, W 2.3, D 1.5 cm 	<i>George Rosengarten;</i> Alaska	Unalakleet	caribou, caribou carcass, ducks, seal, walrus, fishnet, kayak, paddle, sealskin float, spear, umiaq, hunting caribou, hunting waterfowl, hunting seal, seining for fish, shooting a bow	summer camp, spring hunting
12591		The Field Museum; Acc. Absent; ivory, soot 	Alaska	Unalakleet	bowhead, ducks, seal, wolf, harpoon, kayak, spear, tent, umiaq, hunting waterfowl, hunting seal, whaling	spring hunting, summer camp
13472	-1896	The Field Museum; Acc. 1896.112; ivory, soot 	<i>E. E. Ayer;</i> Alaska	Unalakleet	animal skin, wolf, myth creature, barbed line	myth creature, tally
13460	-1896	The Field Museum; Acc. 1896.112; ivory, soot 	<i>E. E. Ayer;</i> Alaska	Unalakleet	caribou, caribou skin, kayak, sealskin float, umiaq, hunting caribou, shooting a bow, barbed band	fall hunting, tally




E33192	1877-1878	Smithsonian National Museum of Natural History; Acc. 78A00080; ivory, soot; L 26, W 1.9, D 1.1 cm 	Edward Nelson; Unalakleet	Unalakleet	bowhead, caribou, flukes, umiaq, whaling	spring hunting, tally
86-35-364a	-1987	University of Pennsylvania Museum of Archaeology and Anthropology; ivory, soot, bearded sealskin; L 42.5, W 1.8, D 1.1 cm 	<i>George and Henry J. Vaux</i> ; Alaska	Unalakleet	bowhead, caribou, dog sled, ducks, flukes, gray whale, kayak, paddle, umiaq, hunting caribou, whaling, shooting a bow	spring hunting
E24549	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, soot, lead; L 33.7, W 1.2, D 1 cm 	Lucien Turner; Norton Sound	Unalakleet	ducks, gray whale, harpoon, kayak, whaling, pronged line	spring hunting, multiples
E33178	1877-1878	Smithsonian National Museum of Natural History; Acc. 78A00080; ivory, lead, bearded sealskin; L 38.5, W 1.4, D 1.1 cm 	Edward Nelson; Kigiktauik	Unalakleet	ducks, flukes	tally
E38781	1877-1879	Smithsonian National Museum of Natural History; Acc. 8133; ivory, soot; L 36.5, W 1.5, D 1 cm 	Edward Nelson; Norton Sound	Unalakleet	tent, nucleated circle	summer camp
SJ-II-F-12b	-1900	Sheldon Jackson Museum; Acc. Absent; ivory, soot, bearded sealskin; L 39.2, W 1.3, D .95 cm 	Anvik	Unalakleet	seal, wolf, tree, pronged line	tally


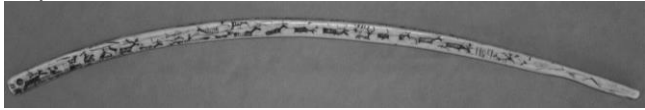

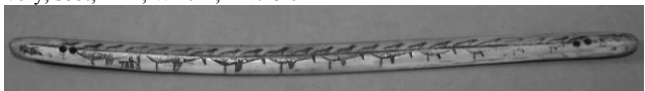
E24533	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, soot, bearded sealskin; L 32.3, W 1.4, D .95 cm 	Lucien Turner; Norton Sound	Unalakleet	bowhead, caribou, ducks, walrus, wolf, kayak, sealskin float, ship, umiaq, hunting waterfowl, hunting walrus, whaling, barbed band, pronged line, cross	sailing ship, spring hunting
88-51-10/50809	1874-1877	Peabody Museum of Archaeology and Ethnology; Acc. 88-51-10; ivory, soot, bearded sealskin; L 34.1, W 1.6, D 1.4 cm 	Lucien Turner; St. Michael	Unalakleet	caribou, tree, barbed band	
E24539	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, soot, bearded sealskin; L 29.3, W 1.05, D .8 cm 	Lucien Turner; Norton Sound	Unalakleet	caribou, caribou swimming, ducks, polar bear, seal, walrus, kayak, spear, tent, hunting bear, hunting caribou, hunting waterfowl, hunting seal, shooing a bow, smoking a pipe	spring hunting, summer camp, multiples
E24536	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, soot, bearded sealskin; L 36.8, W 1.9, D .9 cm 	Lucien Turner; Norton Sound	Unalakleet	caribou, wolf, tree, ship, umiaq, paddle steamer	sailing ship, multiples
E24551	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; bone, lead; L 33.4, W 1.5, D .8 cm 	Lucien Turner; Norton Sound	Pastolik	caribou, fox, wolf, myth creature, cross	myth creature





E24552	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; bone, lead; L 34.5, W 1.65, D .8 cm 	Lucien Turner; Norton Sound	Pastolik	caribou, porcupine, wolf, myth creature, kayak, hunting caribou, shooting a bow	spring hunting, myth creature
E24550	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; bone, lead; L 30.6, W 1.3, D .8 cm 	Lucien Turner; Norton Sound	Pastolik	fish, myth creature, cross, nucleated circle	myth creature
E24538	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; bone, lead or soot; L 32.3, W 1.5, D .8 cm 	Lucien Turner; Norton Sound	Pastolik	dog sled, geese, tree, tent, dancing, cross	summer camp, celebration
E24548	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; bone, soot, bearded sealskin; L 35, W 1.35, D .82 cm 	Lucien Turner; Norton Sound	Pastolik	caribou, wolf, dancing	celebration
E24557	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; bone, bearded sealskin; L 37, W 2.15, D 1.4 cm 	Lucien Turner; Norton Sound	Pastolik	caribou, ducks, insect, porcupine, ermine, palraiyyuk, tirisuk, warfare	myth creature, warfare
E24547	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; bone, bearded sealskin; L 35.6, W 2, D 1.1 cm 	Lucien Turner; Norton Sound	Pastolik	caribou, dog sled, gray whale, walrus, ermine, wolf, palraiyyuk, tirisuk, giant, figure with tail, harpoon, kayak, paddle, tent, whaling	myth creature, spring hunting






E129223	1874-1877	Smithsonian National Museum of Natural History; Acc. 19248; bone; L 41.2, W 1.85, D 1.4 cm 	Lucien Turner; St. Michael	Pastolik	caribou, caribou swimming, ducks, fish, gray whale, seal, walrus, ermine, wolf, myth creature, kayak, paddle, firearm, ice chisel, hunting seal, whaling	spring hunting, myth creature
E24543	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, soot, bearded sealskin; L 41.3, W 1.35, D .9 cm 	Lucien Turner; Norton Sound	Pastolik	beluga, caribou, fish, fox, walrus, ermine, myth creature, kayak, paddle, firearm, hunting caribou	fall hunting, myth creature
13461	-1896	The Field Museum; Acc. 1896.112; ivory, soot 	<i>E. E. Ayer</i> ; Alaska	Pastolik	caribou, caribou swimming, fish, seal, wolf, myth creature, mountain, tree, cache, kayak, rack, firearm, tent, umiaq, umiaq with sail, hunting caribou, hunting seal	spring hunting, summer camp, myth creature
0/498	1894	American Museum of Natural History; Acc. 1894-15; bone, soot, bearded sealskin; L 32, W 1.7, D 1.5 cm 	George T. Emmons; Port Clarence	Pastolik	dog, cache, fishnet, rack, tent, umiaq, cross	summer camp
E33189	1877-1878	Smithsonian National Museum of Natural History; Acc. 78A00080; bone, lead; L 31.8, W 1.2, D 1.3 cm 	Edward Nelson; Pastolik	Pastolik	fish, seal, cache, campfire, kayak, kayak on rack, rack, sled, tent, umiaq, hunting seal, bifurcated line	spring hunting, summer camp




E63621	1877-1881	Smithsonian National Museum of Natural History; Acc. 82A00003; ivory, soot; L 22.9, W 1, D .6 cm 	Edward Nelson; Diomed Islands	Pastolik	caribou, ducks, flukes, migrating birds, walrus, tirisuk, kayak, rack, tent, umiaq, dancing, hunting waterfowl, hunting walrus	summer camp, tally, spring hunting, myth creature, celebration
II-A-379b	1894-1925	Alaska State Museum; Acc. Absent; bone, soot, bearded sealskin; L 28.73, W 2, D 1.05 cm 	George T. Emmons; Alaska	Pastolik	bowhead, caribou, caribou swimming, ducks, seal, walrus, wolf, plant, kayak, hunting caribou, nucleated circle	fall hunting
20418	1877-1881	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, soot; L 37.4, W 1.35, D 1 cm 	Edward Nelson; Cape Darby	Cape Darby	bearded seal, bowhead, caribou, caribou swimming, ducks, flukes, geese, polar bear, walrus, kokogiak, palraiuyuk, tree, armor, harpoon, kayak, umiaq, whaling charm, dancing, hunting seal, whaling, pulling a seal	myth creature, spring hunting, celebration, multiples
13463	-1896	The Field Museum; Acc. 1896.112; ivory, soot; L 39.6, W 1.8, D .9 cm 	<i>E. E. Ayer</i> ; Alaska	Cape Darby	ducks, flukes, walrus, kayak, umiaq, umiaq with sail, hunting walrus	spring hunting, tally
2-1562	1894-1901	Phoebe A. Hearst Museum of Anthropology; Acc. 46; ivory, soot, bearded sealskin; L 34.5, W 1.7, D 1.4 cm 	Charles L. Hall; Alaska	Cape Darby	bear, bowhead, dog sled, migrating birds, walrus, campfire, cache, fishnet, fort, frame house, harpoon, kayak, rack, sealskin float, sod house, tent, umiaq, hunting bear, hunting walrus, whaling, pulling a seal	spring hunting, winter village, summer camp



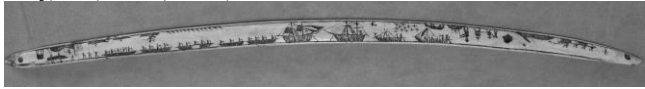

E48525	1877-1881	Smithsonian National Museum of Natural History; Acc. 0; ivory, soot; L 36, W 1.12, D 1 cm 	Edward Nelson; Kotzebue Sound	Cape Darby	bowhead, caribou, migrating birds, walrus, kokogjak, umiaq myth, tree, harpoon, rack, sealskin float, sod house, umiaq, umiaq on rack, whaling charm, hunting caribou, hunting walrus, whaling, shooting a bow	spring hunting, myth creature
54337	-1916	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, soot; L 40.1, W 1.25, D .95 cm 	<i>Joseph E. Standley</i> ; Point Barrow	Cape Darby	bowhead, caribou, caribou swimming, dog, dog sled, ducks, migrating birds, walrus, drummer, figures wrestling, figure with tail, myth creature, bola, kayak, rack, sealskin float, ice chisel, tent, umiaq, umiaq on rack, cutting up caribou, dancing, hunting caribou, hunting walrus, whaling, pulling a seal, shooting a bow, travelling by umiaq, nucleated circle	spring hunting, celebration, myth creature
E45022	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 36, W 1.32, D 1 cm 	Edward Nelson; Sledge Island	Cape Darby	bowhead, dog sled, ducks, migrating birds, raven flying, walrus, wolf, tirisuk, seal transformation, figures wrestling, cache, kayak, sealskin float, sod house, umiaq, cutting up whale, hunting waterfowl, hunting seal, hunting walrus, whaling, pulling a seal	spring hunting, myth creature

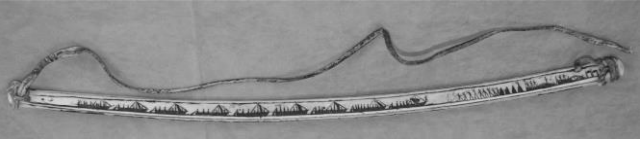

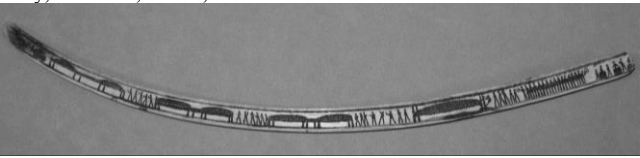
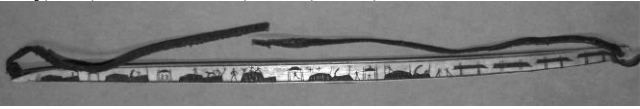
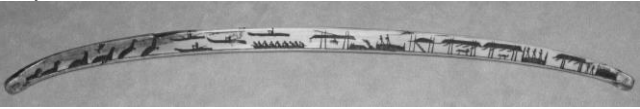
II-A-10	1910-1920	Alaska State Museum; Acc. Neuman; ivory, soot, bearded sealskin; L 33.6, W 1.5, D 1.08 cm 	Daniel Neuman; Norton Sound	Cape Darby	bowhead, caribou, caribou swimming, dog, ducks, migrating birds, polar bear, raven flying, seal, walrus, wolf, myth creature, mound, hunting blind, boots, cache, cooking pot, harpoon, ice chisel, kayak, paddle, rack, firearm, sod house, spear, tent, umiaq, umiaq on rack, cutting up whale, hunting bear, hunting caribou, hunting waterfowl, hunting seal, hunting walrus, whaling, pulling a seal	spring hunting, summer camp, winter village, myth creature, multiples
E48116	1877-1881	Smithsonian National Museum of Natural History; Acc. 0; ivory, soot; L 34.6, W 1.1, D 1.1 cm 	Edward Nelson; Cape Darby	Cape Darby	bowhead, caribou, caribou swimming, dog, dog sled, walrus, myth creature, shaman in qagri, mound, kayak, qagri, snare, sod house, tent, umiaq, dancing, hunting caribou, hunting walrus, whaling	spring hunting, myth creature, summer camp, celebration spiritual, multiples
E44210	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 31.3, W 1.4, D .7 cm 	Edward Nelson; Cape Darby	Cape Darby	bear, bowhead, caribou, caribou swimming, dog, ducks, seal, walrus, cache, hunting bag, kayak, rack, sealskin float, tent, umiaq, hunting caribou, hunting waterfowl, hunting walrus, whaling	spring hunting, summer camp
67885	1917	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, soot; L 44, W 2.22, D 1.15 cm 	Mrs. G. A. Jeffrey; Cape Prince of Wales	Cape Darby	killer whale, seal, wolf, cache, kayak, sod house, umiaq, umiaq on rack	tally


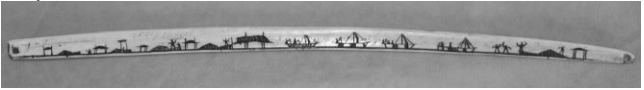

E48523	1877-1881	Smithsonian National Museum of Natural History; Acc. 0; ivory, soot; L 46.6, W 1.5, D 1.02 cm 	Edward Nelson; Kotzebue Sound	Cape Darby	bowhead, caribou, migrating birds, seal, walrus, kokogiak, tirisuk, hunting bag, kayak, sealskin float, spear, umiaq, hunting walrus, whaling	myth creature, spring hunting, tally
E129222	1874-1877	Smithsonian National Museum of Natural History; Acc. 19248; ivory, soot; L 22.1, W 1.22, D 1.15 cm 	Lucien Turner; St. Michael	Cape Darby	bowhead, ducks, fox, gray whale, seal, tazmanian, mountains, fishnet, harpoon, kayak, paddle, sealskin float, umiaq, umiaq with sail, whaling	spring hunting, myth creature, multiples
2-4121	-1898	Phoebe A. Hearst Museum of Anthropology; Acc. 167; ivory, soot, bearded sealskin; L 43, W 2.2, D 1.8 cm 	Rudolph Neumann; Alaska	Cape Darby	bearded seal, bowhead, caribou, caribou skin, raven flying, walrus, walrus with young, cooking pot, harpoon, kayak, sealskin float, tent, umiaq, umiaq with sail, whaling charm, dancing, dancing in umiaq, hunting walrus, whaling, pulling a seal, sexual activity	spring hunting, summer camp, celebration, tally
E48115	1877-1881	Smithsonian National Museum of Natural History; Acc. 0; ivory, soot; L 34.6, W .9, D 1.3 cm 	Edward Nelson; Cape Darby	Cape Darby	bird, bowhead, caribou, caribou carcass, caribou herd, dog sled, bird dancer, drummer, giant, cache, qagri, sled, snare, sod house, umiaq, carrying an umiaq, cutting up caribou, cutting up whale, dancing, hunting caribou, whaling, shooting a bow, warfare	spring hunting, winter village, celebration, myth creature, warfare





II-A-4455	-1952	Alaska State Museum; Acc. 75-1-43; ivory, lead, bearded sealskin; L 36.12, W 2.12, D 1.122 cm 	Frances Muncaster; Amchitka	Cape Darby	caribou, dog, sled, gray whale, seal, armor, rack, tent, hunting caribou, hunting seal, shooting a bow	spring hunting, summer camp
Am1949.22.24	1890s -1949	British Museum; Acc. 1949.22; ivory, soot; L 34.5, W 1.6, D 1.05 cm 	William Ockelford Oldman; Alaska	Cape Darby	caribou, caribou herd, hunting caribou, shooting a bow	fall hunting, multiples
1971.019.001	-1971	Anchorage Museum at Rasmuson Center; Acc. 1971.019; ivory, soot; L 27.5, W 1.6, D .95 cm 	<i>Silverman Galleries, VA;</i> Alaska	Cape Darby	caribou, caribou fighting, caribou swimming, wolf, wolf skin, kayak, hunting caribou, shooting a bow	fall hunting, tally
IV-E-1161	c.194 5-80	Canadian Museum of Civilization; Acc. 1983-048-111; ivory, lead; L 41, W 2.5, D .9 cm 	<i>George Rosengarten;</i> Alaska	Cape Darby	bowhead, caribou, caribou swimming, ducks, walrus, wolf, drummer, figures wrestling, palraiyyuk, kayak, qagri, rack, sod house, tent, umiaq, dancing, hunting caribou, hunting waterfowl, hunting walrus, whaling, warfare, barbed line	spring hunting, fall hunting, celebration, myth creature, warfare
E45021	1877- 1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 33.4, W 1.35, D 1.1 cm 	Edward Nelson; Sledge Island	Sledge Island	caribou, dog, wolf, figures wrestling, boots, cache, campfire, house on posts, rack, firearm, sod house, tent, umiaq, dancing, hunting caribou, pulling a seal, shooting a bow	winter village, summer camp, celebration





E45025	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 40.3, W 1.95, D 1.05 cm 	Edward Nelson; Sledge Island	Sledge Island	caribou, dog, dog sled, ducks, raven flying, seal, walrus, walrus with young, thunderbird, Westerner, boots, cache, kayak, qagri, rack, sod house, umiaq, umiaq with sail, dancing, hunting walrus, ice fishing, pulling a seal, sexual activity	winter village, myth creature, Westerner, celebration
E176191	1877-1881	Smithsonian National Museum of Natural History; Acc. 31796; ivory, soot; L 44, W 1.9, D 1.4 cm 	Edward Nelson; Sledge Island	Sledge Island	bowhead, dog, dog sled, ducks, migrating birds, sacrificial dog, wolf skin, myth creature, figures wrestling, figure with tail, horizontal figure, boots, bucket, cache, harpoon, kayak, paddle, rack, sealskin float, firearm, sod house, tent, umiaq, umiaq on rack, whaling charm, cutting up whale, dancing, whaling, warfare	spring hunting, winter village, summer camp, tally, warfare, celebration, multiples
E44467	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 34.5, W 1.45, D 1 cm 	Edward Nelson; Cape Nome	Sledge Island	bowhead, brown bear, caribou, caribou herd, dog, dog sled, reindeer, myth creature, figure with tail, horizontal figure, boots, cache, harpoon, hunting bag, qagri, firearm, sod house, spear, umiaq, dancing, dancing in qagri, herding reindeer, whaling, sexual activity, shooting a bow, warfare	spring hunting, celebration, myth creature, winter village, warfare

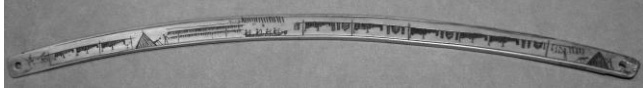




52955	-1916	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, soot; L 41.2, W 1.82, D 1 cm 	Frank Wood; Point Barrow	Sledge Island	bear, bowhead, caribou herd, caribou swimming, dog, flukes, seal, walrus, figures wrestling, figure with a tail, cache, kayak, qagri, rack, ship, firearm, tent, umiaq, umiaq with sail, dancing in qagri, hunting bear, whaling, pulling a seal, shooting a bow, trading.	sailing ship winter village, spring hunting, celebration
E44464	1877- 1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 41.8, W 1.7, D 1 cm 	Edward Nelson; Cape Nome	Sledge Island	bowhead, caribou, seal, walrus, walrus on ice, tirisuk, drummer, giant, caribou dancer, cache, campfire, cooking pot, kayak, qagri, rack, sealskin float, sod house, tent, umiaq, umiaq with sail, dancing in qagri, hunting seal, hunting walrus, pulling a seal, travelling by umiaq	spring hunting, myth creature, celebration, winter village
E45020	1877- 1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 45.1, W 1.7, D 1.1 cm 	Edward Nelson; Sledge Island	Sledge Island	bear, bowhead, ducks, migrating birds, seal, walrus, Westerner, cache, kayak, paddle, ship, sod house, umiaq, umiaq on rack, umiaq with sail, hunting waterfowl, whaling, ice fishing, trading	Westerner, spring hunting, sailing ship
ET1076-0	1877- 1881	Smithsonian National Museum of Natural History; Acc. 999999; ivory, soot, black ink; L 30.2, W 1.4, D 1.25 cm 	Edward Nelson; Alaska	Sledge Island	caribou, seal, cache, snare, sod house, tent, umiaq, dancing, pulling a seal	winter village, multiples



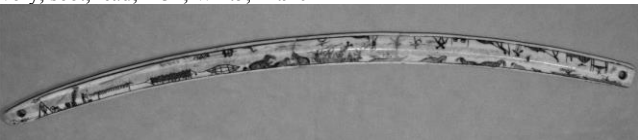
E44399	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot, bearded sealskin; L 43.7, W 1.6, D 1 cm 	Edward Nelson; Cape Nome	Sledge Island	seal, walrus, walrus on ice, walrus with young, cache, harpoon, sod house, tent, umiaq, umiaq with sail, hunting walrus, travelling by umiaq	summer camp, spring hunting, multiples
E45332	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 43, W 1.4, D 1.4 cm 	Edward Nelson; Cape Nome	Sledge Island	caribou, ducks, seal, walrus, wolf, drummer, horizontal figure, shaman, Westerner, boots, cache, harpoon, kayak, qagri, sealskin float, sod house, spear, umiaq, dancing, hunting waterfowl, pulling a seal	celebration winter village, spring hunting Westerner, spiritual, multiples
IV-E-52	1868-1885	Canadian Museum of Civilization; Acc. Mercier; ivory, red ocher; L 31.4, W 1.8 	Francois Mercier; Norton Sound	Sledge Island	bearded seal, walrus, kayak, umiaq, umiaq on rack, drummer, hunting seal, hunting walrus	celebration spring hunting
2-38438	-1964	Phoebe A. Hearst Museum of Anthropology; Acc. 1919; ivory, soot, bearded sealskin; L 35.7, W 1.3, D 1.2 cm 	<i>Hamlin-José Pony Express Foundation;</i> Alaska	Sledge Island	dog, migrating birds, walrus, walrus on ice, cache, harpoon, kayak, qagri, sod house, umiaq, umiaq on rack, dancing, hunting walrus	winter village, spring hunting, celebration
E44208	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 32, W 1.35, D 1.3 cm 	Edward Nelson; Cape Darby	Sledge Island	dog, walrus, cache, kayak, paddle, qagri, rack, sod house, tent, umiaq, umiaq on rack, hunting walrus	spring hunting, winter village

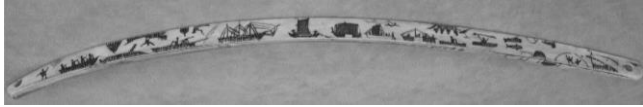
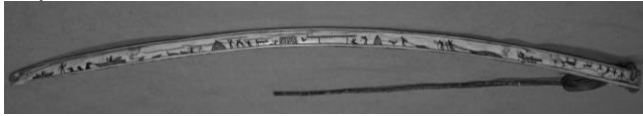
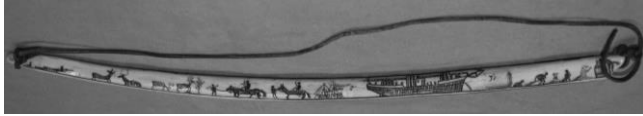
Am1368	1860-1869	British Museum; Acc. Christy; ivory, soot, lead; L 41, W 1.72, D 1.2 cm 	<i>Henry Christy</i> ; Alaska	Sledge Island	caribou, caribou herd, paddle, umiaq, dancing in umiaq, shooting a bow, travelling by umiaq	summer camp, celebration, multiples
E45017	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot, black ink, wood; L 34, W 1.4, D .6 cm 	Edward Nelson; Sledge Island	Sledge Island	cache, sod house, umiaq on rack, umiaq with sail, travelling by umiaq	summer camp
E24541	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, soot; L 32, W 2, D 1.35 cm 	Lucien Turner; Norton Sound	Cape Nome	bear, caribou carcass, caribou skin, dog, dog sled, ducks, raven, ermine, myth creature, drummer, figure with tail, horizontal figure, cache, campfire, cooking pot, fishnet, hunting bag, kayak, memorial pole, rack, sealskin float, sod house, spear, ice chisel, tent, umiaq, dancing, high kick, hunting bear, hunting caribou, hunting waterfowl, shooting a bow, smoking a pipe, barbed line	spring hunting, celebration, summer camp, winter cillage, myth creature, multiples

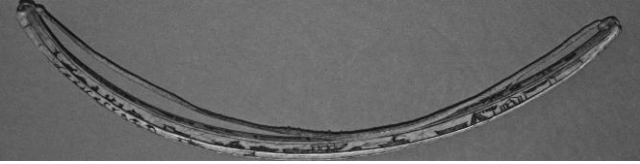

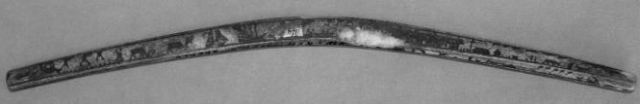
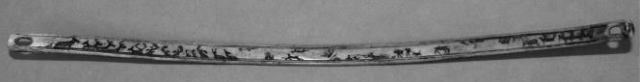
E44398	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 46, W 2.3, D 1.4 cm 	Edward Nelson; Cape Nome	Cape Nome	beluga, bowhead, caribou swimming, dog, dog sled, ducks, flukes, migrating birds, walrus, wolf, insect myth, palraiuyuk, myth creature, figure with tail, shaman in qagri, giant, old figure, cache, kayak, qagri, sealskin float, sod house, umiaq, whaling charm, carrying an umiaq, dancing, hunting walrus, whaling, pulling a kayak, pulling a seal	spring hunting, winter village, celebration, myth creature, spiritual
E33180	1877-1878	Smithsonian National Museum of Natural History; Acc. 78A00080; ivory, soot, bearded sealskin; L 38.8, W 1.25, D 1 cm 	Edward Nelson; St. Michael	Cape Nome	bowhead, caribou, caribou herd, ducks, seal, walrus, walrus on ice, wolf, wolf skin, myth creature, figure with tail, horizontal figure, tree, boots, cache, campfire, cooking pot, harpoon, ice chisel, kayak, sealskin float, sod house, tent, umiaq, hunting walrus, whaling, pulling a seal	spring hunting, winter village, summer camp, tally, multiples
E44400	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 33.9, W 1, D .7 cm 	Edward Nelson; Cape Nome	Cape Nome	animal skin, seal, walrus, fishnet, kayak, rack, sealskin float, tent, umiaq, hunting seal, hunting walrus	spring hunting, summer camp
E48527	1877-1881	Smithsonian National Museum of Natural History; Acc. 0; ivory, soot; L 26.4, W 1.5, D 1.3 cm 	Edward Nelson; St. Michael	Cape Nome	bowhead, caribou, dog, ducks, polar bear, seal, walrus, wolf, harpoon, kayak, sealskin float, umiaq, hunting caribou, hunting seal, hunting walrus, whaling, shooting a bow, barbed band	spring hunting


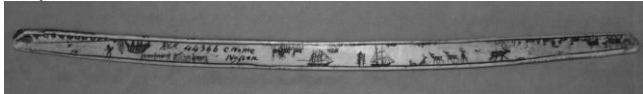



E44367	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 31.7, W 1.4, D .9 cm 	Edward Nelson; Cape Nome	Cape Nome	bearded seal, bowhead, caribou, ducks, migrating birds, walrus, walrus on ice, wolf, drummer, cache, harpoon, hunting bag, kayak, kayak on rack, paddle, qagri, rack, sealskin float, sod house, ice chisel, umiaq, umiaq on rack, umiaq with sail, cutting up whale, dancing in qagri, hunting waterfowl, hunting seal, hunting walrus, whaling, pulling a kayak, pulling a seal, travelling by umiaq	spring hunting, winter village, celebration, multiples
E176194	1877-1881	Smithsonian National Museum of Natural History; Acc. 31796; ivory, black ink; L 38, W 1.2, D .9 cm 	Edward Nelson; Cape Darby	Cape Nome	ducks, walrus, insect myth, palraiyyuk, tirisuk, cache, fort, harpoon, kayak, sealskin float, sod house, tent, umiaq, umiaq with sail, hunting walrus	spring hunting, summer camp, myth creature
1973.017.001	-1973	Anchorage Museum at Rasmuson Center; Acc. 1973.017; ivory, soot, bearded sealskin; L 41.2, W 1.6, D 1.1 cm 	Elim	Cape Nome	bowhead, caribou swimming, dog, ducks, walrus, wolf, boots, cache, harpoon, kayak, sealskin float, ship, sod house, umiaq, umiaq on rack, carrying an umiaq, dancing, hunting caribou, hunting walrus, whaling, pulling a kayak, cross	spring hunting, tally, sailing ship celebration
E45330	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot, black ink; L 34.2, W 1.3, D .9 cm 	Edward Nelson; Cape Nome	Cape Nome	beluga, bowhead, caribou, caribou, caribou herd, dog, dog sled, seal, walrus, harpoon, kayak, tent, umiaq, whaling	spring hunting, summer camp, multiples





2-10898	1883	Phoebe A. Hearst Museum of Anthropology; Acc. 591; ivory, soot; L 41.5, W 1.7, D 1 cm 	S. B. McLenegan; Kotzebue Sound	Cape Nome	caribou, caribou skin, ducks, walrus, rack, spear, tent, umiaq, cutting up caribou, hunting caribou	summer camp
Am1999.02.1	-1973	British Museum; Acc. 1999.02; ivory, lead; L 27.3, W 1.15, D .8 cm 	Donald Marsh; Aklavik	Cape Nome	caribou, caribou herd, dog, geese, campfire, cooking pot, rack, qagri, sod house, ice chisel, tent, dancing, hunting caribou, sexual activity, shooting a bow	summer camp, celebration, multiples
Am1999.02.2	-1973	British Museum; Acc. 1999.02; ivory, lead; L 44.5, W 1.6, D .9 cm 	Donald Marsh; Aklavik	Cape Nome	caribou, geese, walrus, walrus on ice, wolf, bird dancer, harpoon, hunting bag, kayak, qagri, sealskin float, sod house, ice chisel, umiaq on rack, hunting waterfowl, hunting walrus, shooting a bow	spring hunting, celebration, multiples
E24545	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, soot, lead; L 29.2, W 1.2, D 1.1 cm 	Lucien Turner; Norton Sound	Cape Nome	caribou, dog, ducks, hare, walrus, myth creature, figure with tail, cache, campfire, cooking pot, harpoon, kayak, paddle, sod house, tent, umiaq with rack, hunting walrus	summer camp, spring hunting, myth creature, multiples
1976.68	-1976	Horniman Museum; ivory, red ocher, soot; L 38.3, W 1.7, D 1.1 cm 	<i>Bognor Museum;</i> Alaska	Cape Nome	bowhead, dog, migrating birds, walrus, walrus on ice, cache, harpoon, kayak, qagri, sealskin float, sod house, tent, umiaq, umiaq with sail, dancing, hunting walrus, whaling, sexual activity, travelling by umiaq	summer camp, spring hunting, celebration




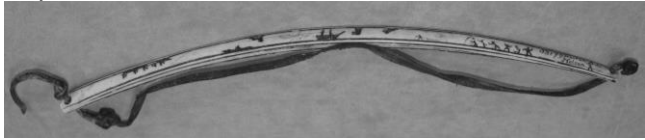
1884.68.21	-1874	<p>Pitt Rivers Museum; Acc. 1884.68; ivory, soot, lead; L 49.6, W 1.7, D 1.18 cm</p> 	<i>Augustus Henry Lane Fox Pitt Rivers;</i> Alaska	Cape Nome	bear, caribou, caribou swimming, caribou herd, caribou skin, dog, dog sled, mountain goat, seal, bird dancer, cache, house on posts, kayak, memorial pole, sealskin float, sod house, spear, umiaq, dancing, cutting up caribou, hunting caribou, shooting a bow	celebration, winter village, multiples
E176172	1877-1881	<p>Smithsonian National Museum of Natural History; Acc. 31796; ivory, black ink; L 34.6, W 1.8, D 1.2 cm</p> 	Edward Nelson; Golovin	Cape Nome: Golovin	bowhead, flukes, seal, walrus, drummer, figures wrestling, giant, Westerner, cache, campfire, canvas tent, cooking pot, fishnet, hunting bag, kayak, paddle, qagri, rack, sealskin float, ship, sled, sod house, tent, umiaq, umiaq with sail, carrying an umiaq, dancing in qagri, high kick, hunting seal, whaling, trading	Westerner, spring hunting, celebration, tally, summer camp, sailing ship, winter village, multiples
246479	-1972	<p>Smithsonian National Museum of the American Indian; Acc. Absent; ivory, soot, lead; L 31, W 1.5, D .9 cm</p> 	<i>David Currie;</i> Alaska	Cape Nome: Golovin	bowhead, dog sled, geese, walrus, figures wrestling, figure with tail, horizontal figure, boots, bucket, cache, cooking pot, fishnet, harpoon, hunting bag, ice chisel, kayak, memorial pole, rack, sealskin float, sod house, spear, tent, umiaq, umiaq with sail, dancing in an umiaq, high kick, hunting waterfowl, hunting walrus, whaling, pulling a seal, shooting a bow	spring hunting, winter village, summer camp, celebration, multiples




E44213	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot, lead; L 33.2, W 1.2, D 1.1 cm 	Edward Nelson; Cape Darby	Cape Nome: Golovin	bowhead, gray whale, ermine, Westerner, canvas tent, fishnet, harpoon, kayak, qagri, rack, ship, sod house, tent, umiaq, umiaq with sail, dancing, whaling, trading	Westerner, spring hunting, sailing ship, celebration, multiples
2-6974	1889-1904	Phoebe A. Hearst Museum of Anthropology; Acc. 128; ivory, soot, bearded sealskin; L 48.3, W 1.4, D 1 cm 	H. M. W. Edmonds; Alaska	Cape Nome: Golovin	caribou, dog, ducks, ermine, flukes, hare, raven, seal, walrus, figures wrestling, cache, canvas tent, harpoon, kayak, rack, sealskin float, firearm, sled, snare, sod house, spear, tent, umiaq on rack, umiaq with sail, dancing, high kick, hunting caribou, hunting waterfowl, hunting seal, hunting walrus, whaling, playing kickball, pulling a kayak, pulling a seal, shooting a bow	summer camp, spring hunting, winter village, multiples
2-1559	1894-1901	Phoebe A. Hearst Museum of Anthropology; Acc. 46; ivory, soot, bearded sealskin; L 39.8, W 1.9, D 1.5 cm 	Charles L. Hall; Alaska	Cape Nome: Golovin	caribou, dog, dog sled, geese, hare, horse, ribbon seal, seal, wolf, figure with tail, myth creature, Westerner, tree, barrel, cache, house on posts, kayak, ship, firearm, sod house, ice chisel, umiaq on rack, hunting caribou, hunting waterfowl, hunting seal, riding a horse, smoking a pipe	Westerner myth creature, spring hunting, sailing ship, multiples


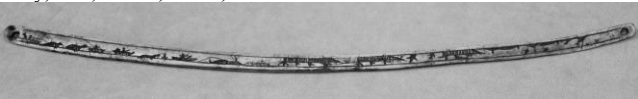



04-28-10/63546	1894-1901	Peabody Museum of Archaeology and Ethnology; Acc. 04-28-10; ivory, soot, bearded sealskin; L 34.5, W 1.7, D 1 cm 	Charles L. Hall; Lower Yukon River	Cape Nome; Golovin	dog sled, ducks, fish, geese, seal, wolf, plant, axe, cache, canvas tent, cooking pot, fishnet, kayak, rack, river boat, firearm, sled, sod house, spear, tent, umiaq, umiaq on rack, hunting waterfowl, hunting seal, pulling a kayak, pulling a seal	summer camp, sailing ship
2-1425	1894-1901	Phoebe A. Hearst Museum of Anthropology; Acc. 46; ivory, soot, bearded sealskin; L 38.6, W 1.5, D 1.3 cm 	Charles L. Hall; St. Michael	St. Michael	caribou, dog sled, fort, hunting bag, kayak, paddle steamer, ice chisel, tent, umiaq, umiaq with sail	sailing ship, summer camp
E274548	1878-1909	Smithsonian National Museum of Natural History; Acc. 54171; bone, soot; L 31.9, W 1.35, D .8 cm 	J. Brady; Alaska	St. Michael	caribou, caribou skin, dog, dog sled, geese, seal, walrus, Westerner, tree, cache, canvas tent, flag, fort, hunting bag, kayak, rack, firearm, ship, snare, sod house, tent, hunting caribou, hunting waterfowl, hunting seal, pulling a seal, barbed line	Westerner, summer camp, sailing ship
E33188	1877-1878	Smithsonian National Museum of Natural History; Acc. 78A00080; bone, soot; L 34.2, W 1.2, D .65 cm 	Edward Nelson; Pastolik	St. Michael	caribou, caribou carcass, caribou herd, dog, raven, ermine, plant, hunting bag, firearm, hunting caribou	fall hunting

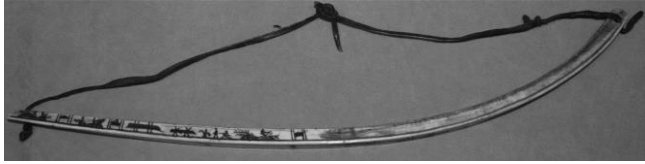



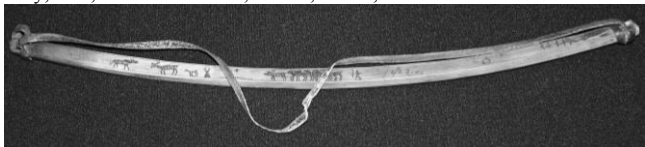
E44206	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 34.2, W 1.7, D 1 cm 	Edward Nelson; Cape Darby	St. Michael	bird, caribou, caribou herd, caribou swimming, dog, dog sled, ducks, seal, Westerner, bucket, campfire, frame house, fort, hunting bag, kayak, rack, firearm, snowshoes, ice chisel, tent, umiaq, cutting up caribou, hunting caribou, hunting seal	Westerner, fall hunting, summer camp, multiples
E44366	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, lead, black ink; L 33.6, W 1.55, D .65 cm 	Edward Nelson; Cape Nome	St. Michael	brown bear, caribou, caribou herd, reindeer, wolf, Westerner, tree, canvas tent, flag, rack, ship, firearm, snowshoes, hunting caribou, hunting wolf, shooting a bow, nucleated circle	Westerner, summer camp, sailing ship, multiples
60.1/4227	1916	American Museum of Natural History; Acc. 1916-70; ivory, soot; L 36, W 2, D 1.5 cm 	George T. Emmons; Bering Strait	St. Michael	seal, walrus, walrus on ice, fort, harpoon, kayak, firearm, umiaq, hunting seal, hunting walrus, pulling a seal	Westerner, spring hunting
E24553	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, soot, lead, animal skin; L 35, W 1.6, D 1.2 cm 	Lucien Turner; Norton Sound	St. Michael	caribou, dog sled, giant, horizontal figure, cache, sod house, hunting caribou, shooting a bow, smoking a pipe, barbed band	fall hunting, myth creature, multiples
E45345	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, black ink; L 31, W 1.2, D .9 cm 	Edward Nelson; Cape Nome	St. Michael	brown bear, caribou, caribou herd, caribou swimming, ducks, Westerner, kayak, paddle, rack, firearm, spear, tent, hunting bear, hunting caribou, hunting waterfowl	spring hunting, summer camp, Westerner, multiples

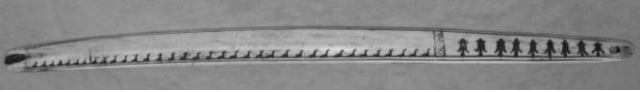
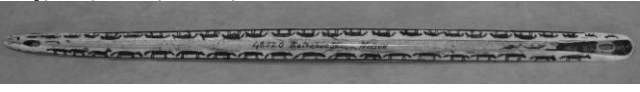



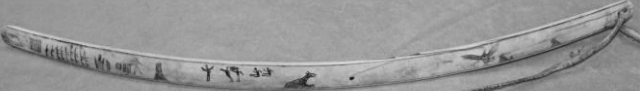
E43810	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 36.2, W 1.6, D 1.3 cm 	Edward Nelson; Shaktoolik	St. Michael	caribou, walrus, campfire, cooking pot, harpoon, kayak, paddle, rack, tent, umiaq, dancing, hunting walrus	spring hunting, summer camp, celebration, multiples
0/62	1894	American Museum of Natural History; Acc. 1894-15; ivory, soot; L 57.3, W 1.4, D 1.4 cm 	George T. Emmons; Kotzebue Sound	St. Michael	bearded seal, brown bear, caribou, dog, dog sled, fish, walrus, wolf, drummer, cache, kayak, rack, ship, firearm, sod house, tent, umiaq, umiaq with sail, dancing, hunting bear, hunting seal, hunting walrus, sexual activity, shooting a bow	sailing ship, spring hunting, celebration, summer camp
15.24		Horniman Museum; ivory, soot; L 30.8, W 1.5, D .6 cm 	Alaska	St. Michael	caribou, hare, wolf, plant, Westerner, ship, umiaq, dancing, hunting caribou, shooting a bow	Westerner, fall hunting, celebration, sailing ship
2-1561	1894-1901	Phoebe A. Hearst Museum of Anthropology; Acc. 46; ivory, soot, bearded sealskin; L 43.7, W 1.6, D 1.4 cm 	Charles L. Hall; Alaska	St. Michael	ducks, fish, insect, polar bear, seal, walrus, insect myth, cache, flag, kayak, paddle steamer, qagri, sealskin float, ship, firearm, sod house, umiaq, umiaq on rack, hunting waterfowl, hunting seal, hunting walrus, nucleated circle	sailing ship, spring hunting, myth creature, multiples

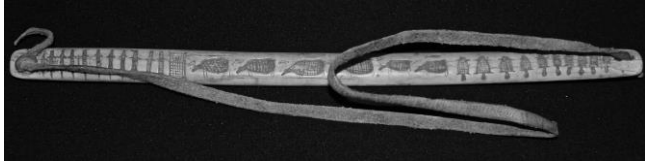




E64152	1877-1881	Smithsonian National Museum of Natural History; Acc. 82A00003; ivory, soot, bearded sealskin; L 35, W 1.4, D .9 cm 	Edward Nelson; Hotham Inlet	Hotham Inlet	bird, caribou swimming, dog sled, ducks, flukes, seal, walrus, cache, fishnet, kayak, paddle, firearm, snowshoes, sod house, tent, umiaq, dancing, hunting caribou, hunting waterfowl, hunting seal, pulling a seal, shooting a bow, warfare	spring hunting, tally, warfare, celebration, multiples
12598	1887-1893	The Field Museum; Acc. 1893.128; ivory, soot, bearded sealskin 	Sheldon Jackson; Alaska	Hotham Inlet	bowhead, dog sled, ducks, seal, walrus, drummer, ice chisel, kayak, rack, tent, umiaq, yurt, dancing, hunting walrus, whaling, pulling a seal	celebration, spring hunting, summer camp, multiples
SJ-II-Y-129a	-1900	Sheldon Jackson Museum; Acc. Absent; ivory, soot, bearded sealskin; L 34.6, W 1.2, D .95 cm 	Kotzebue Sound	Hotham Inlet	bearded seal, dog, dog sled, migrating birds, polar bear, walrus, wolf, figure with tail, cache, kayak, firearm, sod house, umiaq, umiaq on rack, hunting seal, hunting walrus, pulling a seal	spring hunting, winter village
E33179	1877-1878	Smithsonian National Museum of Natural History; Acc. 78A00080; ivory, soot, bearded sealskin; L 35.5, W 1.25, D .9 cm 	Edward Nelson; St. Michael	Hotham Inlet	walrus, drummer, figure with tail, kayak, ship, umiaq, dancing, high kick, pulling a seal	spring hunting, celebration, sailing ship, multiples




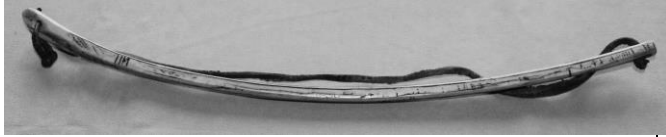
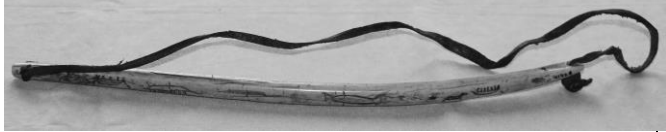
E38886	1877-1879	Smithsonian National Museum of Natural History; Acc. 8133; ivory, soot; L 32.9, W 1.62, D .95 cm 	Edward Nelson; Norton Sound	Hotham Inlet	caribou, caribou carcass, caribou skin, caribou swimming, ducks, gray whale, raven, seal, shaman, giant, figure with tail, tree, boots, bucket, campfire, cooking pot, kayak, rack, sealskin float, ship, spear, sod house, tent, umiaq, umiaq on rack, umiaq with sail, dancing, hunting caribou, hunting waterfowl, hunting seal, pulling a seal, sexual activity, warfare, barbed line	sailing ship myth creature, spring hunting, summer camp, warfare, spiritual, celebration
E176171	1877-1881	Smithsonian National Museum of Natural History; Acc. 31796; ivory, soot; L 39.8, W 1.5, D 1 cm 	Edward Nelson; Unalakleet	Hotham Inlet	bearded seal, bowhead, dog sled, migrating birds, seal, walrus, walrus on ice, walrus transformation, figure with tail, cache, kayak, rack, sealskin float, ship, firearm, sod house, tent, umiaq, whaling charm, carrying an umiaq, hunting walrus, whaling, pulling a seal, trading	sailing ship, spring hunting, summer camp
E48526	1877-1881	Smithsonian National Museum of Natural History; Acc. 0; ivory, soot; L 29.5, W 1.3, D 1 cm 	Edward Nelson; Kotzebue Sound	Hotham Inlet	bowhead, dog, dog sled, ducks, migrating birds, polar bear, seal, tree, harpoon, kayak, qagri, rack, sealskin float, ship, sod house, tent, umiaq, umiaq on rack, carrying an umiaq, dancing, hunting bear, hunting waterfowl, whaling, shooting a bow	sailing ship spring hunting, summer camp, celebration



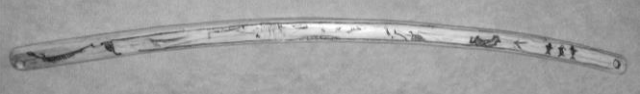


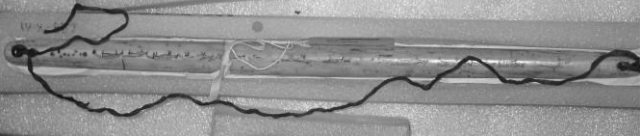
97-84-570	-1936	University of Pennsylvania Museum of Archaeology and Anthropology ivory, soot, bearded sealskin; L 33.6, W 1.6, D 1.2 cm 	<i>Academy of Natural Sciences of Philadelphia;</i> Alaska	Hotham Inlet	bowhead, dog, dog sled, migrating birds, polar bear, seal, walrus, campfire, cache, rack, ship, sod house, spear, tent, umiaq with sail, hunting bear, hunting walrus, pulling a seal	sailing ship, summer camp, spring hunting
2003-1-10	1866-1868	Alaska State Museum; Acc. 2003-1-10; ivory, soot; L 35.7, W 1.1, D .9 cm 	William Dall; Alaska	Hotham Inlet	bowhead, ducks, seal, walrus, kayak, sealskin float, umiaq, hunting waterfowl, hunting seal, hunting walrus, whaling	spring hunting
60/2122	1892-1899	American Museum of Natural History; Acc. 1899-13; ivory, soot, bearded sealskin; L 40.7, W 1.6, D 1 cm 	Miner Bruce; Alaska	Hotham Inlet	bowhead, brown bear, dog sled, ribbon seal, seal, walrus, sealskin float, wolf skin, tent, umiaq, dancing in umiaq, hunting walrus, whaling	spring hunting, celebration
60/2126	1892-1899	American Museum of Natural History; Acc. 1899-13; ivory, soot; L 32, W 1.2, D .9 cm 	Miner Bruce; Alaska	Hotham Inlet	bearded seal, bowhead, caribou, migrating birds, walrus, harpoon, rack, sealskin float, tent, umiaq, hunting walrus, whaling	spring hunting
177756	1927	The Field Museum; Acc. 1927.1740; ivory, soot, bearded sealskin 	John Borden; Cape Prince of Wales or Point Barrow	Hotham Inlet	bowhead, caribou, ducks, walrus, harpoon, kayak, rack, tent, umiaq, dancing in umiaq, hunting caribou, hunting waterfowl, hunting walrus, whaling, shooting a bow, warfare	spring hunting, warfare, celebration

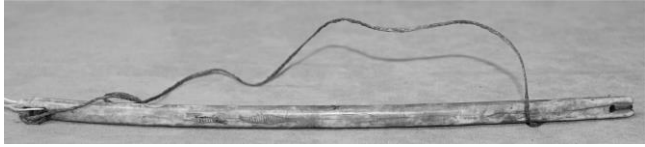

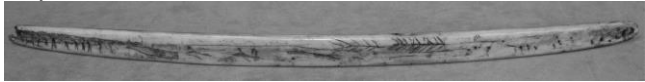

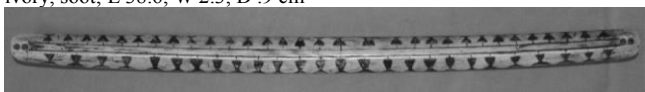

2-4550	-1898	Phoebe A. Hearst Museum of Anthropology; Acc. 167; ivory, soot, bearded sealskin; L 38.8, W 1.5, D 1.1 cm 	Rudolph Neumann; Alaska	Hotham Inlet	cache, kayak on rack, qagri, sod house, umiaq on rack, dancing	winter village, celebration
E45018	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; bone, lead; L 29.2, W 1.3, D .55 cm 	Edward Nelson; Sledge Island	Hotham Inlet	dog, walrus, cache, sod house, umiaq, hunting walrus	spring hunting, winter village
E67904	1882	Smithsonian National Museum of Natural History; Acc. 12009; ivory, soot; L 31.9, W 1.2, D 1.15 cm 	John McLean; Alaska	Hotham Inlet	bowhead, caribou, ducks, seal, wolf, horizontal figure, harpoon, kayak, rack, sealskin float, ship, tent, umiaq, whaling charm, hunting seal, whaling, pulling a seal, sexual activity, barbed line	spring hunting, summer camp, sailing ship
E/632	1894	American Museum of Natural History; Acc. 1894-15; ivory, soot; L 38.5, W 1.8, D 1 cm 	George T. Emmons; Cape Prince of Wales?	Hotham Inlet	caribou, seal, harpoon, hunting bag, hunting caribou, hunting seal, shooting a bow	spring hunting, tally
0/423c	1894	American Museum of Natural History; Acc. 1894-15; ivory, soot, bearded sealskin; L 40.6, W 1.2, D .8 cm 	George T. Emmons; Kotzebue Sound	Hotham Inlet	caribou, caribou herd, dog, migrating birds, walrus, wolf, cache, rack, ship, tent, hunting caribou, shooting a bow	sailing ship, fall hunting, summer camp


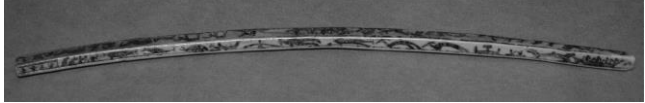

E64151	1877-1881	Smithsonian National Museum of Natural History; Acc. 82A00003; ivory, soot, bearded sealskin; L 39.2, W 2.2, D 1.15 cm 	Edward Nelson; Hotham Inlet	Hotham Inlet	beaver skin, ducks	tally
E48520	1877-1881	Smithsonian National Museum of Natural History; Acc. 0; ivory, soot; L 43.9, W 2.22, D 1.5 cm 	Edward Nelson; Kotzebue Sound	Hotham Inlet	bowhead, migrating birds, wolf, umiaq, whaling	spring hunting, tally, multiples
60/1252	1892-1899	American Museum of Natural History; Acc. 1899-13; ivory, soot; L 37.3, W 1.4, D 1.1 cm 	Miner Bruce; Port Clarence	Hotham Inlet	bowhead, wolf, wolf skin, ermine, shaman, cache, mask, sod house, umiaq, whaling, pulling a seal	spring hunting, tally, spiritual
NA454	1905	University of Pennsylvania Museum of Archaeology and Anthropology; ivory, soot, bearded sealskin; L 42.2, W 1.7, D 1 cm 	George B. Gordon; Cape Prince of Wales	Hotham Inlet	ducks, wolf skin	tally
E43932	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot, bearded sealskin; L 36.8, W 1.3, D 1 cm 	Edward Nelson; Nubviukhchuga luk	Hotham Inlet	caribou, caribou skin, ducks, wolf skin, cache, kayak, sod house, canvas tent, umiaq	tally, multiples
4501	-1913	Burke Museum of Natural History and Culture; Acc. 881; ivory, lead, soot, bearded sealskin; L 41, W 1.8, D 1 cm 	Ellis Allen, E. M. Blackwell; Kotzebue Sound	Hotham Inlet	bear, dog, ermine skin, thunderbird, geese, walrus, sod house, dancing, sexual activity	myth creature, celebration, tally, multiples






60.1/4205	1916	American Museum of Natural History; Acc. 1916-70; ivory, soot, bearded sealskin; L 39.2, W 2.2, D 2 cm 	George T. Emmons; Kotzebue Sound	Hotham Inlet	beaver skin, caribou, ermine skin, snare	fall hunting, tally
2-4125	-1898	Phoebe A. Hearst Museum of Anthropology; Acc. 167; ivory, soot, bearded sealskin; L 28.7, W 1.6, D 1 cm 	Rudolph Neumann; Alaska	Hotham Inlet	bear, ducks, fox, mountain goat, seal, walrus, kayak, paddle, umiaq, sealskin float, hunting waterfowl, hunting seal, hunting walrus, shooting a bow	spring hunting
60.1/934	1912	American Museum of Natural History; Acc. 1912-68; ivory; L 26.4, W 1.3, D .9 cm 	Vilhjalmur Stefansson; Cape Smythe	Point Barrow	caribou, walrus, wolf, umiaq, hunting walrus, pronged line	spring hunting
60.1/299	1912	American Museum of Natural History; Acc. 1912-68; ivory, soot; L 36, W 1.2, D 1.1 cm 	Vilhjalmur Stefansson; Cape Smythe	Point Barrow	caribou, wolf	fall hunting
12587	-1894	The Field Museum; Acc. 1897.67; ivory, soot 	<i>E. O. Stafford</i> ; Alaska	Point Barrow	beluga skin, caribou, dog, ducks, seal, kayak, sled, dancing, hunting waterfowl, hunting caribou, hunting seal, shooting a bow, warfare	spring hunting, warfare

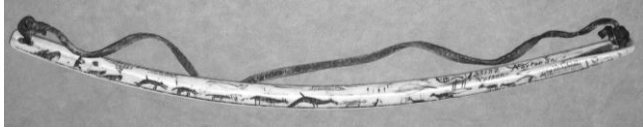


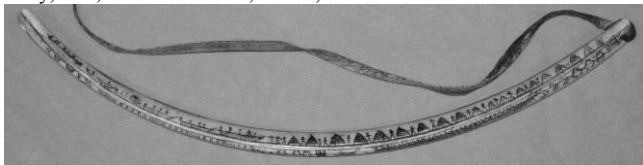
94-57-10/R105	-1894	Peabody Museum of Archaeology and Ethnology; Acc. 94-57-10; ivory, soot, bearded sealskin; L 32.7, W 1.5, D .9 cm 	Frederick H. Rindge; Point Barrow	Point Barrow	bear, bowhead, caribou, caribou herd, ducks, flukes, seal, walrus, wolf, horizontal figure, tirisuk, plant, kayak, paddle, firearm, spear, umiaq, hunting bear, hunting caribou, hunting waterfowl, hunting seal, hunting walrus, whaling, shooting a bow	spring hunting, myth creature
SJ-II-Y-58	1891	Sheldon Jackson Museum; Acc. Jackson; ivory, soot; L 40.3, W 1.7, D .8 cm 	Sheldon Jackson; Kotzebue Sound	Point Barrow	beluga skin, walrus skin, caribou, walrus, wolverine skin, harpoon	tally
Am9369	1875	British Museum; Acc. Simpson; ivory, red ocher; L 38, W 1.1, D .8 cm 	<i>William Sparrow Simpson</i> ; Port Clarence?	Point Barrow	bowhead, umiaq, whaling	spring hunting
NA457	1905	University of Pennsylvania Museum of Archaeology and Anthropology; ivory, soot, bearded sealskin; L 35.7, W 1.2, D .9 cm 	George B. Gordon; Nunivak Island	Point Barrow	bearded seal, bowhead, ducks, migrating birds, wolf skin, cache, kayak, qagri, sod house, umiaq, dancing, hunting waterfowl, whaling, barbed line	spring hunting, celebration, multiples
41428	1897	University of Pennsylvania Museum of Archaeology and Anthropology; ivory, soot, bearded sealskin; L 37.9, W 1.45, D 1.25 cm 	E. A. McIlhenny; Point Barrow	Point Barrow	bowhead, walrus, wolf, harpoon, kayak, umiaq, hunting walrus, whaling, pronged line	spring hunting


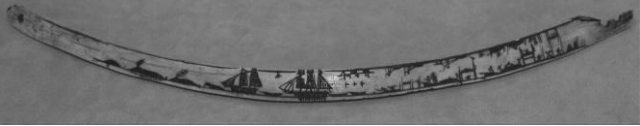

SJ-II-Y-17a	1887-1898	Sheldon Jackson Museum; Acc. Jackson; ivory, soot, bearded sealskin; L 31.6, W 1.3, D .85 cm 	Sheldon Jackson; Alaska	Point Barrow	ducks, umiaq, sexual activity	
66-25-10/44182	-1940	Peabody Museum of Archaeology and Ethnology; Acc. 66-25-10; ivory, soot, bearded sealskin; L 33.1, W 1.2, D 1.1 cm 	<i>Chauncey C. Nash</i> ; Alaska	Point Barrow	caribou, dog sled, migrating birds, pulling a seal	spring hunting
E44207	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot; L 35.2, W 1.6, D .9 cm 	Edward Nelson; Cape Darby	Point Barrow	bowhead, dog, ducks, gray whale, whale bones, myth creature, tent, umiaq, whaling	spring hunting, myth creature, multiples
E44618	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot, black ink; L 25.2, W .9, D .9 cm 	Edward Nelson; Cape Nome	Point Barrow	seal, harpoon, kayak, hunting seal	spring hunting, multiples
2142	1904	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, soot, bearded sealskin; L 39.4, W 1.2, D 1.05 cm 	Miner Bruce; Point Barrow	Point Barrow	seal	tally
IV-X-887	c.1945-80	Canadian Museum of Civilization; Acc. 1983-029-064; ivory, soot, bearded sealskin; L 44.5, W 2.5, D 1.5 cm 	<i>George Rosengarten</i> ; Alaska	Point Barrow	caribou, wolf	




AmSt.763	1860-1869	British Museum; Acc. Christy; ivory, soot, sinew; L 28.7, W 1.1, D .92 cm 	<i>Henry Christy</i> ; Canada	Point Barrow	bearded seal, hunting seal	spring hunting
60/2123	1892-1899	American Museum of Natural History; Acc. 1899-13; ivory, soot, bearded sealskin; L 32.6, W 1.1, D .8 cm 	Miner Bruce; Alaska	Point Barrow	caribou, kayak, umiaq, hunting caribou	fall hunting
E89421	1881-1883	Smithsonian National Museum of Natural History; Acc. 13712; ivory, soot; L 36.6, W 1.8, D .9 cm 	John Murdoch; Point Barrow	Point Barrow	caribou, tent, pronged line	summer camp
E89420	1881-1883	Smithsonian National Museum of Natural History; Acc. 13712; ivory; L 35.3, W 2.05, D 1 cm 	John Murdoch; Point Barrow	Point Barrow	caribou, caribou skin	tally
E89424	1881-1883	Smithsonian National Museum of Natural History; Acc. 13712; ivory, soot; L 38.6, W 2.3, D .9 cm 	John Murdoch; Point Barrow	Point Barrow	flukes	tally
NA4488	1912-1919	University of Pennsylvania Museum of Archaeology and Anthropology; ivory, soot, bearded sealskin; L 34.8, W 1.4, D 1.15 cm 	W. B. Valin; Wainwright	Point Barrow	bearded seal skin	tally

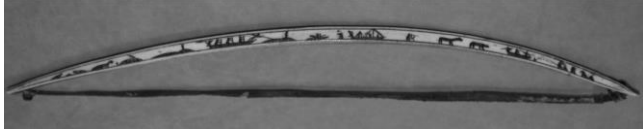

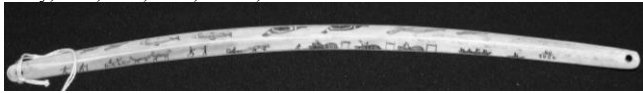

E48524	1877-1881	Smithsonian National Museum of Natural History; Acc. 0; ivory, lead; L 39.2, W 1.3, D 1.18 cm 	Edward Nelson; Kotzebue Sound	Point Barrow II	beaver skin, bowhead, ermine, flukes, walrus, walrus transformation, wolf, wolf skin, wolf transformation, Westerner, horizontal figure, fishnet, kayak, sealskin float tent, umiaq, hunting walrus, whaling	Westerner, summer camp, spring hunting, myth creature, tally, multiples
94-57-10/R106	-1894	Peabody Museum of Archaeology and Ethnology; Acc. 94-57-10; ivory, soot; L 33.6, W 1.1, D 1 cm 	Frederick H. Rindge; Point Barrow	Point Barrow II	bowhead, caribou, dog, ducks, walrus, wolf, bird dancer, insect myth, palraiyyuk, seal transformation, walrus transformation, wolf transformation, umiaq myth, harpoon, qagri, sealskin float, umiaq, dancing, hunting caribou, hunting walrus, whaling	myth creature, spring hunting, celebration
E33187	1877-1878	Smithsonian National Museum of Natural History; Acc. 78A00080; ivory, soot, bearded sealskin; L 45, W 1.6, D .95 cm 	Edward Nelson; St. Michael	Point Barrow II	ducks, gray whale, migrating birds, walrus, walrus on ice, drummer, crocodile myth, giant, kokogiak, palraiyyuk, tirisuk, seal transformation, walrus dog, walrus transformation, umiaq myth, kayak, qagri, rack, sealskin float, firearm, ice chisel, tent, umiaq, dancing in qagri, hunting seal, hunting walrus, whaling	myth creature, spring hunting, summer camp, celebration, multiples

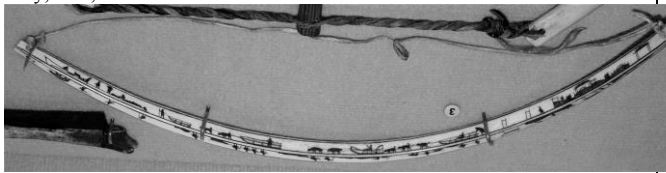

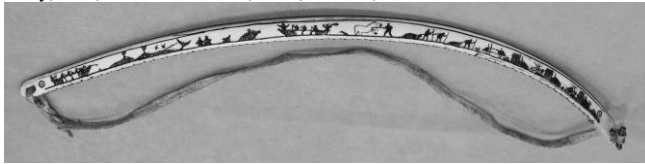
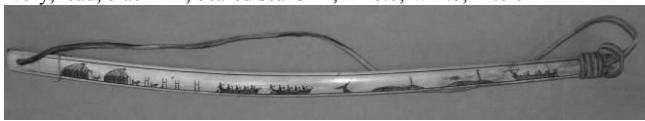
98-18-10/52140	1892-1898	Peabody Museum of Archaeology and Ethnology; Acc. 98-18-10; ivory, soot, bearded sealskin; L 41.2, W 1.5, D 1.1 cm 	Miner Bruce; Port Clarence	Point Barrow II	bearded seal, bowhead, caribou, caribou swimming, dall sheep, porcupine, seal, ermine, bird dancer, shaman divided, palraiyyuk, tazmanian, walrus dog, tree, tent, dancing, barbed band, nucleated circle	celebration, myth creature, spiritual, summer camp
E46054	1866-1868	Smithsonian National Museum of Natural History; Acc. 9536; ivory, soot, bearded sealskin; L 36.2, W 1.3, D 1 cm 	William Dall; Port Clarence	Point Barrow II	caribou, seal, palraiyyuk, tazmanian, walrus dog, bird dancer, caribou dancer, rack, tent, dancing, hunting seal, pulling a seal	summer camp, spring hunting, celebration, myth creature, multiples
ET1076-1	1877-1881	Smithsonian National Museum of Natural History; Acc. 999999; ivory, soot; L 39.2, W 1.05, D .95 cm 	Edward Nelson; Alaska	Point Barrow II	caribou, caribou swimming, kokogiak, cache, qagri, rack, sod house, tent, dancing, hunting caribou, cross, nucleated circle	myth creature, summer camp, celebration
55597	-1916	Smithsonian National Museum of the American Indian; Acc. Absent; ivory; L 43.9, W 1.5, D .9 cm 	Joseph E. Standley; Point Barrow	Point Barrow II	bowhead, flukes, geese, seal, walrus, seal transformation, cache, kayak, tent, yurt, hunting waterfowl, hunting walrus	spring hunting, summer camp, myth creature
NA455	1905	University of Pennsylvania Museum of Archaeology and Anthropology; ivory, soot; L 39.2, W 1.2, D 1.1 cm 	George B. Gordon; Cape Prince of Wales	Point Barrow II	bearded seal, bowhead, geese, polar bear, walrus, walrus on ice, palraiyyuk, figure with tail, cache, harpoon, sealskin float, sod house, umiaq, hunting bear, hunting walrus, whaling, pulling a seal, sexual activity	spring hunting, myth creature, multiples

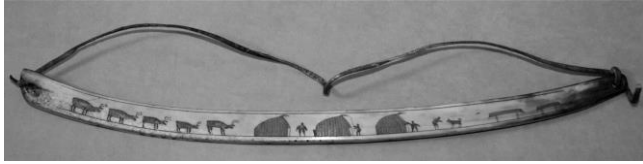
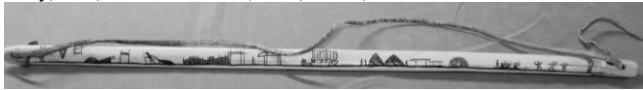

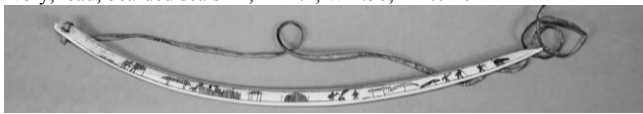
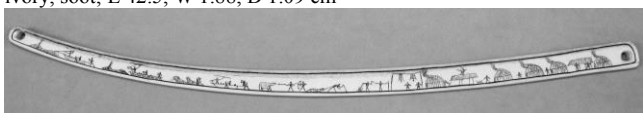
E33182	1877-1878	Smithsonian National Museum of Natural History; Acc. 78A00080; ivory, soot, bearded sealskin; L 37.5, W 1.55, D 1.55 cm 	Edward Nelson; St. Michael	Point Barrow II	bear, caribou, caribou herd, dog, geese, walrus, walrus with young, wolf, palraiyyuk, tirisuk, walrus dog, figures wrestling, tree, harpoon, kayak, sod house, umiaq, dancing, hunting bear, hunting caribou, hunting waterfowl, hunting walrus, pulling a seal, shooting a bow, barbed line	myth creature, spring hunting, celebration, multiples
E48521	1877-1881	Smithsonian National Museum of Natural History; Acc. 0; ivory, soot; L 42.2, W 1.65, D 1.15 cm 	Edward Nelson; Kotzebue Sound	Point Barrow II	bowhead, caribou, dog, migrating birds, ribbon seal, walrus, crocodile myth, palraiyyuk, tirisuk, figure with tail, cache, harpoon, sealskin float, sod house, umiaq, umiaq with rack, umiaq with sail, hunting walrus, whaling, pulling a seal	spring hunting, myth creature, winter village, multiples
177755	1927	The Field Museum; Acc. 1927.1740; ivory, soot, bearded sealskin 	John Borden; Cape Prince of Wales or Point Barrow	Point Barrow II	bowhead, fox, migrating birds, walrus transformation, cache, rack, sod house, umiaq, whaling, pulling a seal	spring hunting, winter village, myth creature
IV-E-51	1868-1885	Canadian Museum of Civilization; Acc. Mercier; ivory, soot, bearded sealskin; L 31.1, W 1.3 	Francois Mercier; Alaska	Point Barrow II	caribou, caribou herd, reindeer, wolverine skin, cache, kayak, rack, snare, sod house, tent, umiaq, hunting caribou, travelling by umiaq	summer camp, tally




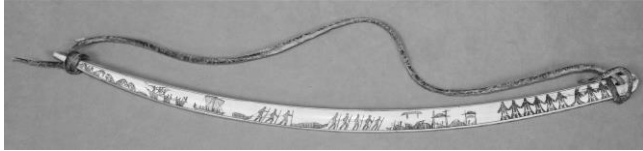
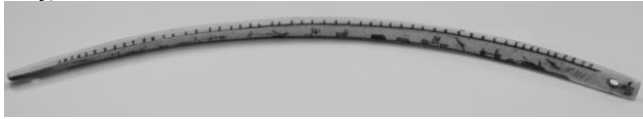
E48522	1877-1881	Smithsonian National Museum of Natural History; Acc. 0; ivory, lead; L 37.7, W 1.4, D 1.1 cm 	Edward Nelson; Kotzebue Sound	Point Barrow II	bearded seal, bowhead, caribou, walrus, bird dancer, drummer, shaman in qagri, harpoon, hunting bag, kayak, qagri, sealskin float, ice chisel, umiaq with sail, dancing, high kick, whaling, pulling a seal	celebration, spring hunting, spiritual, multiples
E154071	-1892	Smithsonian National Museum of Natural History; Acc. 25748; ivory, soot; L 31.9, W 1.5, D 1.05 cm 	<i>Mildred McLean Hazen</i> ; Alaska	Point Barrow II	bowhead, dog, fox, migrating birds, walrus, figures wrestling, cache, memorial pole, paddle, ship, sod house, tent, umiaq, umiaq on rack, hunting walrus, pulling a seal	sailing ship, spring hunting, multiples
E48519	1877-1881	Smithsonian National Museum of Natural History; Acc. 0; ivory, soot, lead; L 31, W 1.4, D 1.2 cm 	Edward Nelson; Kotzebue Sound	Point Barrow II	bird, bowhead, dog sled, ducks, seal, walrus, figure with tail, figures wrestling, horizontal figure, palraiuyuk, cache, fishnet, frame house, kayak, qagri, rack, ship, firearm, sod house, tent, umiaq, umiaq with sail, dancing, hunting waterfowl, hunting seal, whaling	sailing ship, summer camp, spring hunting, celebration, multiples

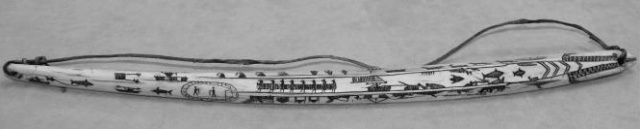

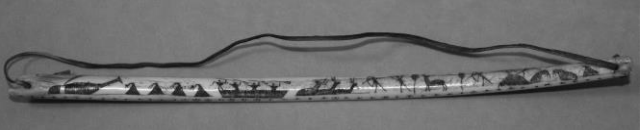

60/6241		<p>American Museum of Natural History; Acc. Absent; ivory, soot; L 46.7, W 2.1, D 1 cm</p> 	Alaska	Point Barrow II	<p>bear, bearded seal, bowhead, caribou, dog, dog sled, migrating birds, thunderbird, figures wrestling, bird dancer, drummer, plant, cache, campfire, cooking pot, flag, ice chisel, qagri, rack, firearm, sod house, tent, umiaq, umiaq with sail, dancing, hunting bear, hunting caribou, hunting seal, whaling, ice fishing, pulling a seal, sexual activity, shooting a bow, ladder line, nucleated circle</p>	<p>celebration spring hunting, summer camp, souvenir</p>
SJ-II-V-125	1889-1908	<p>Sheldon Jackson Museum; Acc. 303; ivory, soot; L 43.7, W 1.92, D .75 cm</p> 	Samuel Spriggs; Barrow	Point Barrow II	<p>bowhead, caribou, caribou herd, dog sled, ducks, fish, migrating birds, raven flying, walrus, walrus on ice, thunderbird, bird dancer, drummer, flag, frame house, memorial pole, qagri, ship, firearm, tent, umiaq, dancing, hunting waterfowl, hunting walrus, whaling, ice fishing, pulling a seal, nucleated circle</p>	<p>sailing ship myth creature, celebration, spring hunting, souvenir</p>
E63802	1877-1881	<p>Smithsonian National Museum of Natural History; Acc. 82A00003; ivory, soot, lead, bearded sealskin; L 41.5, W 1.35, D .95 cm</p> 	Edward Nelson; Point Hope	Point Barrow II	<p>bowhead, ducks, migrating birds, seal, walrus, harpoon, kayak, sod house, umiaq, hunting waterfowl, hunting seal, hunting walrus, whaling</p>	<p>spring hunting</p>

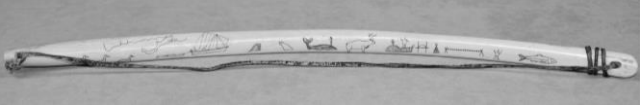

55598	-1916	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, soot, bearded sealskin; L 42.8, W 1.5, D 1.05 cm 	<i>Joseph E. Standley</i> ; Point Barrow	Point Barrow II	bearded seal, bowhead, caribou, caribou herd, caribou swimming, polar bear, walrus, wolf, palraiuyuk, cache, harpoon, kayak, paddle, sealskin float, qagri, firearm, sod house, tent, umiaq, umiaq on rack, umiaq with sail, hunting bear, hunting walrus, whaling	spring hunting, summer camp, myth creature
E398234	1908	Smithsonian National Museum of Natural History; Acc. 231572; ivory, lead, bearded sealskin; L 34, W 1.1, D 1 cm 	Floyd Fellows; Icy Cape	Point Barrow II	beluga, bowhead, dog, polar bear, seal, walrus, frame house, sealskin float, sled, umiaq, whaling	spring hunting
60/5826	1906	American Museum of Natural History; Acc. 1906-34; ivory, lead, soot; L 33, W 1.8, D 1.4 cm 	George T. Emmons; Point Barrow	Point Barrow II	caribou, dog sled, fish, geese, seal, ribbon seal, Westerner, plant, cache, ice chisel, kayak, ship, sod house, tent, umiaq	Westerner, summer camp, sailing ship, multiples
II-A-7340	1910-1920	Alaska State Museum; Acc. 89-13-1; ivory, lead, bearded sealskin; L 44.3, W 1.19, D 1 cm 	Daniel Neuman; Norton Sound	Nome	dog, dog sled, polar bear, walrus, walrus on ice, drummer, cache, fishnet, fort, harpoon, ice chisel, kayak, qagri, rack, sealskin float, sod house, spear, tent, umiaq on rack, umiaq with sail, dancing, cutting up whale, hunting bear, hunting walrus, pulling a seal, shooting a bow, cross	winter village, spring hunting, summer camp, celebration

II-A-8	1910-1920	Alaska State Museum; Acc. Neuman; ivory, lead, bearded sealskin 	Daniel Neuman; Norton Sound	Nome	dog sled, polar bear, reindeer, walrus, cache, campfire, ice chisel, sled, sod house, tent, spear, umiaq, umiaq on rack, hunting bear, hunting walrus, pulling a seal	spring hunting, summer camp, winter village, souvenir
29-151-279	-1923	University of Pennsylvania Museum of Archaeology and Anthropology ivory, soot, bearded sealskin; L 47.3, W 1.5, D 1.5 cm 	<i>Dr. Judson Daland</i> ; Alaska	Nome	bear, beluga, dog sled, fish, fox, polar bear, ribbon seal, walrus, drummer, plant, mountains, bucket, cache, fishnet, harpoon, paddle, rack, sod house, spear, tent, umiaq, umiaq on rack, cutting up whale, dancing, hunting bear, hunting walrus, ice fishing, pulling a seal, shooting a bow, cross	spring hunting, summer camp, winter village, celebration, souvenir
Am1925.0508.3	-1925	British Museum; Acc. 1925.0508; ivory, soot, bearded sealskin; L 41, W 1.15, D 1.15 cm 	<i>Herbert Charles Coleman</i> ; Cape Nome	Nome	bowhead, dog, dog sled, migrating birds, polar bear, reindeer, frame house, harpoon, paddle, sealskin float, umiaq, umiaq on rack, yurt, herding reindeer, hunting bear, whaling, pulling a seal, barbed line, nucleated circle	spring hunting, summer camp, winter village, souvenir
E360422	-1931	Smithsonian National Museum of Natural History; Acc. 113605; ivory, lead, black ink, beared seal skin; L 46.6, W 1.8, D .6 cm 	Victor J. Evans; Alaska	Nome	bowhead, dog, walrus, walrus on ice, harpoon, kayak, paddle, rack, sealskin float, tent, umiaq, yurt, hunting walrus, whaling	spring hunting, summer camp, souvenir

94635	-1919	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, lead, bearded sealskin; L 48, W 2.4, D 1.5 cm 	Little Diomede	Nome	dog, geese, polar bear, reindeer, walrus, drummer, cache, kayak, rack, sod house, spear, tent, umiaq on rack, yurt, dancing, hunting bear, hunting waterfowl	summer camp, winter village, celebration, souvenir
1972.066.001	1910-1920	Anchorage Museum at Rasmuson Center; Acc. 1972.066; ivory, lead, bearded sealskin; L 50, W 1.7, D 1.2 cm 	Daniel Neuman; Norton Sound	Nome	bowhead, polar bear, drummer, cache, rack, sod house, spear, tent, umiaq on rack, umiaq with sail, dancing, hunting bear, pulling a seal, shooting a bow	winter village, summer camp, celebration, souvenir, multiples
II-A-4105	-1963	Alaska State Museum; Acc. 63-72; ivory, black ink; L 33.5, W 1.82, D 1.1 cm 	Alfred P. Swineford; Alaska	Nome	dog, dog sled, polar bear, seal, walrus, Westerner, boots, canvas tent, fort, harpoon, sealskin float, sod house, tent, umiaq, hunting walrus, pulling a seal	winter village, summer camp, Westerner, souvenir, multiples
II-A-2	1910-1920	Alaska State Museum; Acc. Neuman; ivory, lead, bearded sealskin; L 41.1, W 1.56, D 1.04 cm 	Daniel Neuman; Cape Prince of Wales	Nome	dog, polar bear, cache, cooking pot, fishnet, kayak, qagri, rack, sod house, ice chisel, umiaq on rack, hunting bear, pulling a seal, shooting a bow	winter village, summer camp, souvenir
II-A-5	1910-1920	Alaska State Museum; Acc. Neuman; ivory, soot; L 42.5, W 1.88, D 1.09 cm 	Daniel Neuman; Norton Sound	Nome	bowhead, dog, polar bear, seal, walrus, wolf skin, cache, harpoon, ice chisel, kayak, rack, sealskin float, sod house, spear, umiaq, umiaq on rack, yurt, hunting bear, hunting seal, hunting walrus, whaling, pulling a seal, shooting a bow	spring hunting, winter village, souvenir, multiples

01.27.01	-1997	Carrie McLain Memorial Museum; Acc. 1997.002; ivory, ink 	Alaska	Nome	cache, kayak on rack, sod house, umiaq on rack, dancing	winter village, celebration, souvenir
49588	-1897	The Field Museum; Acc. 1897.512; ivory, lead 	Joseph F. Nathan; <i>E. E. Ayer</i> ; Alaska	Nome	fish, ermine, cache, sod house, fishing	winter village, souvenir, multiples
II-A-3	1910-1920	Alaska State Museum; Acc. Neuman; ivory, soot, lead, bearded sealskin; L 40.4, W 1.85, D 1.4 cm 	Daniel Neuman; Nome	Nome	flukes, polar bear, seal, walrus, wolverine skin, harpoon, ice chisel, hunting walrus, pulling a seal	spring hunting, souvenir, tally, multiples
II-A-4	1910-1920	Alaska State Museum; Acc. Neuman; ivory, lead, bearded sealskin; L 46, W 1.7, D 1.49 cm 	Daniel Neuman; Cape Prince of Wales	Nome	beluga, bowhead, dog, flukes, migrating birds, polar bear, seal, walrus, wolverine skin, cache, harpoon, ice chisel, sealskin float, firearm, sod house, umiaq, umiaq on rack, umiaq with sail, hunting seal, hunting walrus, whaling, pulling a seal	spring hunting, winter village, tally, souvenir, multiples
101586		Wells Fargo Alaskan Heritage Museum; Acc. Absent; ivory, lead 	Alaska	Nome	bowhead, caribou, dog sled, cache, kayak, sealskin float, sod house, umiaq, umiaq on rack, hunting caribou, hunting seal, whaling, shooting a bow	spring hunting, souvenir

49587	-1897	The Field Museum; Acc. 1897.512; ivory, soot, bearded sealskin; L 39.9, W 2.5, D 2 cm 	Joseph F. Nathan; <i>E. E. Ayer</i> ; Alaska	Nome: Naomoff	animal skin, bowhead, brown bear, caribou, caribou herd, ducks, dog sled, fish, gray whale, seal, shark, walrus, figure with tail, tree, cache, fishnet, harpoon, kayak, paddle, sealskin float, firearm, snare, sod house, tent, umiaq, umiaq with sail, herding reindeer, hunting caribou, hunting seal, hunting walrus, whaling, shooting a bow, barbed band	spring hunting, summer camp, souvenir, multiples
49589	-1897	The Field Museum; Acc. 1897.512; ivory, lead 	Joseph F. Nathan; <i>E. E. Ayer</i> ; Alaska	Nome: Naomoff	carcass, caribou, dog sled, duck, tree, cache, snare, tent, hunting caribou, shooting a bow	summer camp, souvenir
62376	-1917	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, soot, black ink, bearded sealskin; L 32.5, W 1.3, D 1 cm 	<i>Fred Harvey Collection</i> ; Alaska	Nome: Naomoff	bowhead, caribou swimming, walrus, tree, harpoon, paddle, umiaq, hunting caribou, hunting walrus, shooting a bow, barbed band, nucleated circle	spring hunting, souvenir, multiples
62378	-1917	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, lead, bearded sealskin; L 37.9, W 1.75, D 1.1 cm 	<i>Fred Harvey Collection</i> ; Alaska	Nome: Naomoff	bowhead, caribou, caribou herd, dog, dog sled, ducks, fish, polar bear, walrus, tree, kayak, spear, umiaq, hunting caribou, hunting waterfowl, hunting walrus	spring hunting, souvenir

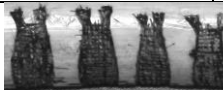


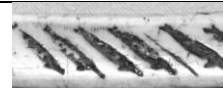




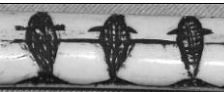


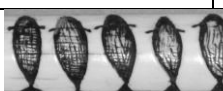


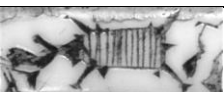


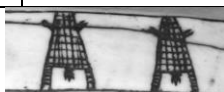
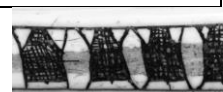
II-A-7	1910-1920	Alaska State Museum; Acc. Neuman; ivory, lead, bearded sealskin; L 52, W 2.15, D 2.02 cm 	Daniel Neuman; St. Lawrence Island?	Modern	bowhead, caribou, ducks, fish, seal, walrus, cache, kayak, map, rack, snare, sod house, tent, umiaq with sail, hunting caribou, hunting walrus, whaling, shooting a bow	spring hunting, summer camp, souvenir
E360421	-1931	Smithsonian National Museum of Natural History; Acc. 113605; ivory, black ink; L 57.6, W 2.1, D 1.1 cm 	Victor J. Evans; Alaska	Modern	bearded seal, dog sled, fish, cache, harpoon, kayak, sealskin float, sod house, hunting seal	spring hunting, winter village, souvenir
II-A-6577a	1964-1980	Alaska State Museum; Acc. 80-30-1076; ivory, black ink; L 40, W 1.42, D .63 cm 	Keith and Alice Fuller; Little Diomed and Nome	Modern	caribou, polar bear, cache, sod house, umiaq on rack, umiaq with sail, hunting seal, ice fishing	spring hunting, winter village, souvenir




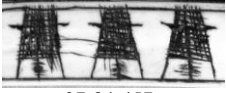

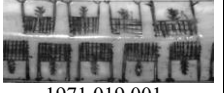



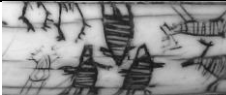












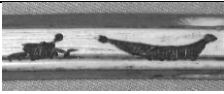



APPENDIX F




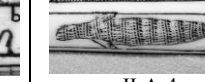




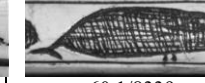

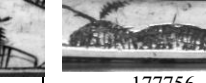



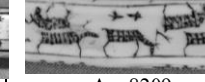



DRILL BOW MOTIFS WITH REGIONAL VARIATIONS






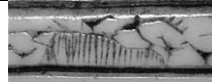








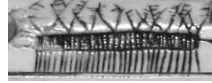







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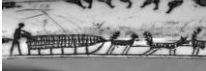





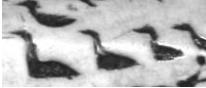
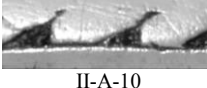


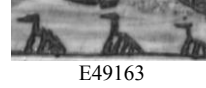
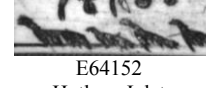






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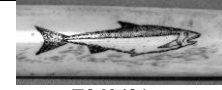


















Animals						
<p>animal skin: bearded seal <i>ugruk amiq</i></p> <p>shown as a single subject or in rows</p>	 E89425 Point Hope	 1886.1.697 Point Hope	 1884.33.31 Point Hope	 NA4488 Point Barrow		
<p>animal skin: beaver <i>aqu amiq</i></p> <p>shown in rows</p>	 60.1/4205 Hotham Inlet	 E64151 Hotham Inlet	 E48524 Point Barrow II			
<p>animal skin: beluga <i>sisuaq amiq</i></p> <p>shown in rows and with a harpoon in the side</p>	 1886.1.697 Point Hope	 1886.1.696 Point Hope	 SJ-II-Y-58 Point Barrow	 12587 Point Barrow		
<p>animal skin: bowhead <i>agviq amiq</i></p> <p>shown in rows</p>	 1886.1.697 Point Hope	 E89425 Point Hope				
<p>animal skin: caribou <i>tuttu amiq</i></p> <p>shown as a single subject or in rows</p>	 Am6745 Indian Point	 E24541 Cape Nome	 1884.68.21 Cape Nome	 2-4119 Little Diomede	 E24540 Indian Point	 Am1983.27.1 Point Hope



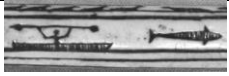












<p>animal skin: ermine <i>tigiaqpak amiq</i></p> <p>shown in rows</p>	 60.1/4205 Hotham Inlet	 4501 Hotham Inlet				
<p>animal skin: wolf (or fox) <i>amaquq amiq</i></p> <p>shown in rows or hanging from a rack</p>	 NA454 Hotham Inlet	 97-84-457 Indian Point	 E49163 Little Diomede	 1971.019.001 Cape Darby	 E33180 Cape Nome	 II-A-5 Nome
<p>animal skin: wolverine <i>qapvik amiq</i></p> <p>shown in rows or hanging from a line</p>	 1884.98.48 Cape Prince of Wales	 IV-E-51 Point Barrow II	 E176191 Sledge Island	 SJ-II-Y-58 Point Barrow	 II-A-4 Nome	 II-A-3 Nome
<p>brown bear <i>aklaq</i></p> <p>shown as a single subject or with a cub; two bears fighting; chasing caribou; being hunted with rifle, spear or bow and arrow</p>	 E45346 Indian Point	 E44467 Sledge Island	 IV-E-56 Unalakleet	 E45345 St. Michael	 0/62 St. Michael	 49587 Nome: Naomoff
<p>bearded seal <i>ugruk</i></p> <p>shown as a single subject or in rows; being hunted on the ice; being pulled</p>	 SJ-II-Y-129 Hotham Inlet	 E45346 Indian Point	 IV-E-52 Sledge Island	 2-4121 Cape Darby	 E48522 Point Barrow II	 Am1855.1126.226 Indian Point




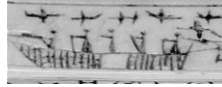


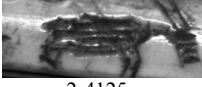









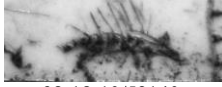
<p>beluga <i>sisuaq</i></p> <p>shown as a single subject or in rows; being hunted in a kayak; being cut up on the beach</p>	 E44398 Cape Nome	 E398234 Barrow II	 29-151-279 Nome	 II-A-4 Nome	 E24543 Pastolik	 II-A-7340 Nome
<p>bowhead <i>agviq</i></p> <p>shown as a whole whale or only flukes; being hunted in an umiak; harpooned and dragging a sealskin float; being pulled onto the shore; being cut up on the beach</p>	 27.4.61/32 East Cape	 E176172 Cape Nome: Golovin	 60.1/8339 Point Hope	 ET16060 Little Diomede	 177756 Hotham Inlet	 Am1855.1126.224 Cape Prince of Wales
<p>caribou <i>tuttu</i></p> <p>shown as a single subject, in rows or in herds; shown standing, grazing, running, lying down, nursing a calf, swimming, migrating, lying dead; being hunted with spear, bow and arrow or rifle; bulls, cows and calves</p>	 Am.6745 Indian Point	 E33186 Indian Point	 Am.8209 Cape Prince of Wales	 E44210 Cape Darby	 94-57-10/R105 Point Barrow	 15.24 St. Michael









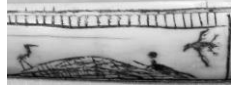











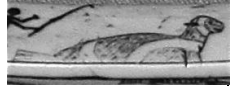

<p>caribou carcass</p> <p>shown with arrow in side; with ravens; being cut up by hunter; being transported in a sled</p>	 Am.6745 Indian Point	 1886.1.693 East Cape	 E33188 St. Michael	 Am1855.1126.227 East Cape	 E38886 Hotham Inlet	 E24541 Cape Nome
<p>caribou fighting <i>tuttunugiaq</i></p> <p>two bull caribou shown clashing antlers</p>	 Am1855.1220.229 Indian Point	 1884.68.20 Cape Prince of Wales	 1971.019.001 Cape Darby			
<p>caribou herd <i>tiqittut</i></p> <p>cluster herd of caribou shown as a single long body with multiple heads and legs; shown on land and in water</p>	 E44467 Sledge Island	 E33182 Point Barrow II	 Am1999.02.1 Cape Nome	 55598 Point Barrow II	 SJ-II-V-125 Point Barrow II	 Am1949.22.24 Cape Darby
<p>caribou swimming <i>tuttut naluktuq</i></p> <p>shown swimming in pairs or in a herd; being hunted by kayak with a spear</p>	 27.4.61/32 East Cape	 E43360 Cape Prince of Wales	 1884.140.488 Cape Prince of Wales	 1886.1.695 Indian Point	 Am1949.22.23 East Cape	 13461 Pastolik
<p>dall sheep <i>ipnaiq</i></p> <p>shown as a pair within a row of myth creatures</p>	 98-18-10/52140 Point Barrow II					




















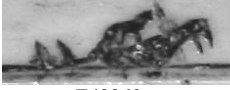




<p>dog <i>qimmiq</i></p> <p>shown as a single animal or in pairs pulling a sled; on top of a sod house, under a cache, next to figures, crowded on a beach, playing and mating</p>	 27.4.61/32 East Cape	 2-4120 Little Diomede	 2-38438 Sledge Island	 1886.1.694 East Cape	 E45021 Sledge Island	 E44467 Sledge Island
<p>dog sled <i>qilgich</i></p> <p>shown being pulled by one to three dogs while figure, often with whip, rides or stands behind or in front of sled</p>	 2-1559 Cape Nome: Golovin	 0/62 St. Michael	 E43360 Cape Prince of Wales	 12598 Hotham Inlet	 04-28-10/63546 Cape Nome: Golovin	 Am1949.22.22 East Cape
<p>ducks <i>tijmiagruich</i></p> <p>shown in rows on land or in the water swimming; being hunted with club, bird spear, bola, or bow and arrow</p>	 E45022 Cape Darby	 II-A-10 Cape Darby	 27.4.61/32 East Cape	 E38886 Hotham Inlet	 E49163 Little Diomede	 E64152 Hotham Inlet
<p>ermine (weasel) <i>tigiaqpak</i></p> <p>shown as a single subject or within row of animals; being hunted with rifle</p>	 E24557 Pastolik	 E24543 Pastolik	 E33188 St. Michael	 2-6974 Cape Nome: Golovin	 E48524 Point Barrow II	 98-18-10/52140 Point Barrow II










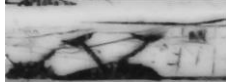

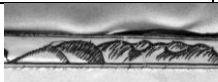











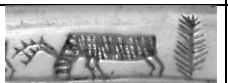
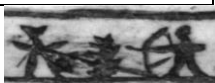
<p>fish <i>iqaluk</i></p> <p>shown as a single subject or in a row with similar or different species; being eaten by a bear; being fished with line or seine; hanging on a rack</p>						
<p>flukes <i>avatraq</i></p> <p>shown as a single subject or in rows; isolated or within a whaling scene; hanging from a line</p>						
<p>fox <i>kayuqtuq</i></p> <p>shown as a single subject, in pairs or in a row; hunting small animals; scavenging caribou carcass or killed animals</p>						
<p>geese <i>tiqmiat</i></p> <p>shown as a single subject or in a flock; mating, grazing, flying or swimming; being snared, hunted with a bow and arrow or hunted in a kayak with a bird spear</p>						
	<p>0/62 St. Michael</p>	<p>E24550 Pastolik</p>	<p>E24543 Pastolik</p>	<p>62378 Nome: Naomoff</p>	<p>49588 Nome</p>	<p>E360421 Modern</p>
	<p>NA9387 East Cape</p>	<p>E89424 Point Barrow</p>	<p>E33192 Unalakleet</p>	<p>13463 Cape Darby</p>	<p>Am.1369 Point Hope</p>	<p>II-A-3 Nome</p>
	<p>Am.6745 Indian Point</p>	<p>55598 Point Barrow II</p>	<p>E129222 Cape Darby</p>	<p>Am1949.22.26 Cape Prince of Wales</p>	<p>E154071 Point Barrow II</p>	<p>29-151-279 Nome</p>
	<p>1886.1.694 East Cape</p>	<p>1884.140.488 Cape Prince of Wales</p>	<p>NA455 Point Barrow II</p>	<p>20418 Cape Darby</p>	<p>2-1559 Cape Nome: Golovin</p>	<p>193412 Little Diomede</p>











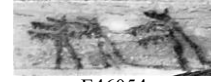








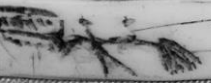







<p>gray whale <i>agvigluaq</i></p> <p>shown as a single subject or in rows with projecting harpoons; being hunted in a kayak; being cut up on the beach</p>	 E33190 Indian Point	 86-35-364 Unalakleet	 E44209 Little Diomede	 E38886 Hotham Inlet	 II-A-4455 Cape Darby	 E129222 Cape Darby
<p>hare <i>ukallisugruk</i></p> <p>shown as a single subject or in rows sitting up on back legs</p>	 E24545 Cape Nome	 2-1559 Cape Nome: Golovin	 15.24 St. Michael	 2-6974 Cape Nome: Golovin		
<p>horse <i>tuttuqpak</i></p> <p>shown with a Western rider</p>	 2-1559 Cape Nome: Golovin					
<p>insect <i>qupilguq</i></p> <p>shown as a single subject in row of creatures</p>	 E24557 Pastolik	 2-1561 St. Michael				
<p>killer whale <i>aaglu</i></p> <p>shown as a single subject dead on the beach or in rows with small belugas inside the killer whales</p>	 33.238 Indian Point	 67885 Cape Darby				




















<p>migrating birds</p> <p>shown in rows or flocks; often flying over umiat and bowhead whales; stretched across narrow sides of a drill bow</p>	 <p>54337 Cape Darby</p>	 <p>E44398 Cape Nome</p>	 <p>E45022 Cape Darby</p>	 <p>Am.9367 Cape Prince of Wales</p>	 <p>1886.1.692 East Cape</p>	 <p>II-A-4 Nome</p>
<p>mountain goat</p> <p>shown in pairs; being hunted with bow and arrow</p>	 <p>2-4125 Hotham Inlet</p>	 <p>1884.68.21 Cape Nome</p>				
<p>polar bear <i>nanuq</i></p> <p>shown as a single subject, with cubs, or within row of animals; hunting walrus and seal; eating; being hunted in kayak or on land with spear, bow and arrow or rifle</p>	 <p>27.4.61/32 East Cape</p>	 <p>II-A-10 Cape Darby</p>	 <p>E49163 Little Diomede</p>	 <p>II-A-5 Nome</p>	 <p>II-A-4 Nome</p>	 <p>II-A-6577 Modern</p>
<p>porcupine <i>īuqutaq</i></p> <p>shown as a single subject within row of animals</p>	 <p>E24552 Pastolik</p>	 <p>E24557 Pastolik</p>	 <p>98-18-10/52140 Point Barrow II</p>			





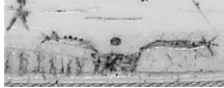




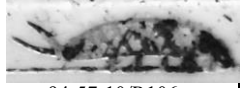
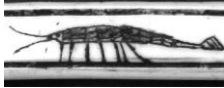







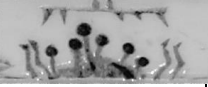



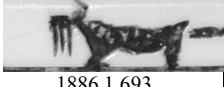


<p>raven <i>tulugaq</i></p> <p>shown as a single subject on the ground or flying; in pairs following hunters and their kill; on top of caribou carcass</p>	 27.4.61/32 East Cape	 2-6974 Cape Nome: Golovin	 E45016 East Cape	 E38886 Hotham Inlet	 1886.1.693 East Cape	
<p>raven flying <i>tulugaq</i> <i>tijmiruq</i></p> <p>shown as a single subject flying over camp or hunting scenes</p>	 II-A-10 Cape Darby	 2-4121 Cape Darby	 E45022 Cape Darby	 SJ-II-V-125 Point Barrow II	 E43360 Cape Prince of Wales	 E45025 Sledge Island
<p>reindeer <i>qunniq</i></p> <p>shown in herds grazing or lying down; being ridden and herded</p>	 E44467 Sledge Island	 E38782 Indian Point	 IV-E-51 Point Barrow II	 Am1925.0508.3 Nome	 94635 Nome	 E44366 St. Michael
<p>ribbon seal <i>qaiǰulik</i></p> <p>shown as a single subject within a row of animals; being clubbed</p>	 E48521 Point Barrow II	 60/2122 Hotham Inlet	 60/5826 Point Barrow II	 2-1559 Cape Nome: Golovin	 29-151-279 Nome	






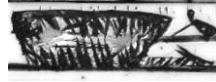


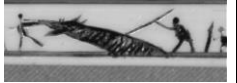











<p>seal <i>natchiq</i></p> <p>shown as a single subject or in rows; sunning on the ice or swimming; snared below the water or hunted on the ice with spear or harpoon; killed and being pulled</p>	 <p>II-A-10 Cape Darby</p>	 <p>67885 Cape Darby</p>	 <p>II-A-4105 Nome</p>	 <p>E64152 Hotham Inlet</p>	 <p>Am1855.1220.228 Cape Prince of Wales</p>	 <p>Am1855.1126.227 East Cape</p>
<p>walrus <i>aiviq</i></p> <p>shown as a single subject or in herds; swimming, resting on back, mother carrying calf, aggregated on an ice floe; hunted in an umiaq or kayak with harpoon and sealskin float; attacking hunters</p>	 <p>2-4121 Cape Darby</p>	 <p>SJ-II-X-224 East Cape</p>	 <p>177756 Hotham Inlet</p>	 <p>E43931 Little Diomede</p>	 <p>246479 Cape Nome: Golovin</p>	 <p>E360422 Nome</p>
<p>walrus on ice <i>nunavaich</i></p> <p>herd of walrus shown climbing, resting, jumping off and swimming around ice floes</p>	 <p>2-38438 Sledge Island</p>	 <p>E43360 Cape Prince of Wales</p>	 <p>E176171 Hotham Inlet</p>	 <p>1976.68 Cape Nome</p>	 <p>E33180 Cape Nome</p>	 <p>Am1970.06.1 East Cape</p>
<p>walrus with calf</p> <p>female walrus shown carrying calf on her back</p>	 <p>2-4121 Cape Darby</p>	 <p>E43360 Cape Prince of Wales</p>	 <p>II-A-3 Nome</p>	 <p>E44399 Sledge Island</p>	 <p>67-9-10/144 Little Diomede</p>	 <p>E33182 Point Barrow II</p>






















<p>wolf (gray) <i>amaġuq</i></p> <p>shown as a single subject or in rows; chasing caribou; attacking people</p>	 Am1949.22.26 Cape Prince of Wales	 Am1999.02.2 Cape Nome	 0/62 St. Michael	 15.24 St. Michael	 E33180 Cape Nome	 E48520 Hotham Inlet
Nature						
<p>mound <i>manigaq</i></p> <p>shown as a semi-circular lump with projecting caribou antlers and bones; often shown next to a caribou snare</p>	 E48116 Cape Darby	 E48518 Little Diomede	 33.238 Indian Point	 II-A-10 Cape Darby	 1884.98.47 Cape Prince of Wales	
<p>mountains <i>iñgich</i></p> <p>shown as an aggregate of geometric forms along the baseline</p>	 29-151-279 Nome	 E129222 Cape Darby				
<p>plant <i>nautchiaq</i></p> <p>shrubs, sedges and grasses shown as a single plant or in rows</p>	 04-28-10/63546 Cape Nome: Golovin	 60/5826 Point Barrow II	 E33188 St. Michael	 60/6241 Point Barrow II	 2-1559 Cape Nome: Golovin	 15.24 St. Michael
<p>tree (spruce) <i>napaaqtuq</i></p> <p>shown as a single subject or in rows; used for cover while hunting caribou and geese</p>	 1886.1.695 Indian Point	 Am1949.22.22 East Cape	 E48525 Cape Darby	 88-51-10/50809 Unalakleet	 1884.140.488 Cape Prince of Wales	 E48526 Hotham Inlet
Figures						








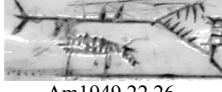









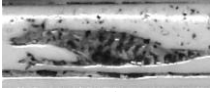

<p>bird dancer</p> <p>shown with feathered wings and headdresses or masks with long bills</p>	 E46054 Point Barrow II	 1884.68.21 Cape Nome	 94-57-10/R106 Point Barrow II	 E48115 Cape Darby	 98-18-10/52140 Point Barrow II	 SJ-II-V-125 Point Barrow II
<p>caribou dancer</p> <p>shown with feather or rattle armlets and caribou headdresses often with antlers</p>	 1884.98.48 Cape Prince of Wales	 Am1949.22.26 Cape Prince of Wales	 15324 Cape Prince of Wales	 1886.1.693 East Cape	 E46054 Point Barrow II	 E44464 Sledge Island
<p>drummer <i>qijaurraqti</i></p> <p>single or multiple figures shown beating a round skin drum while other figures dance</p>	 Am1949.22.22 East Cape	 0/62 St. Michael	 IV-E-52 Sledge Island	 60/6241 Point Barrow II	 12598 Hotham Inlet	 II-A-7340 Nome
<p>figure waving tail <i>iñukisaaqталapam iuq</i></p> <p>figure(s) shown waving a wolf tail to frighten caribou and herd reindeer</p>	 Am1949.22.22 East Cape	 1884.68.20 Cape Prince of Wales	 1886.1.693 East Cape			
<p>figure with tail <i>iñukpamiuq</i></p> <p>figure shown wearing a wolf or wolverine tail while hunting and dancing</p>	 27.4.61/32 East Cape	 54337 Cape Darby	 2-4120 Little Diomede	 2-1559 Cape Nome: Golovin	 E45333 East Cape	 Am.8209 Cape Prince of Wales
















<p>figures wrestling <i>suguktut</i></p> <p>two facing figures shown bent at the waist with head and shoulders crossed</p>	 27.4.61/32 East Cape	 52955 Sledge Island	 E45022 Cape Darby	 E154071 Point Barrow II	 54337 Cape Darby	 246479 Cape Nome: Golovin
<p>horizontal figure <i>nalaiñuk</i></p> <p>single figure stretched horizontally across the side perpendicular to other motifs; shown on the end or in the middle of scenes</p>	 E48519 Point Barrow II	 E24541 Cape Nome	 1884.98.47 Cape Prince of Wales	 1884.98.48 Cape Prince of Wales	 E44467 Sledge Island	 ET16060 Little Diomede
<p>old figure <i>utuqqanaaq</i></p> <p>figure shown bent over with walking stick</p>	 E44398 Cape Nome					
<p>Westerner <i>naluaġmiu</i></p> <p>men shown wearing brimmed hats on board ships and small barges or in camp with canvas tents and hands on hips; one woman in European dress</p>	 E44213 Cape Nome: Golovin	 E45332 Sledge Island	 E44366 St. Michael	 E44206 St. Michael	 15.24 St. Michael	 E176172 Cape Nome: Golovin
<p>Legends</p>						

























crocodile myth slender myth creature shown with two long jaws filled with teeth	 E33187 Point Barrow II	 E48521 Point Barrow II				
giant <i>iñukpasuk</i> large myth figure shown as a single subject; attacking umiaq or camp; standing outside qagri	 E38886 Hotham Inlet	 E176172 Cape Nome: Golovin	 Am.8209 Cape Prince of Wales	 E44464 Sledge Island	 Am.9367 Cape Prince of Wales	 E44398 Cape Nome
insect creature myth creature shown with antennas and thin legs in scenes with other myth creatures	 E176194 Cape Nome	 94-57-10/R106 Point Barrow II	 2-1561 St. Michael	 E44398 Cape Nome	 1884.98.47 Cape Prince of Wales	
kokogiak myth creature shown on a curved back with multiple legs extended in the air	 ET1076-1 Point Barrow II	 Am1855.1220.228 Cape Prince of Wales	 20418 Cape Darby	 Am1949.22.26 Cape Prince of Wales	 E33187 Point Barrow II	 1886.1.694 East Cape
myth creature various creatures with extraordinary features	 II-A-9 Cape Prince of Wales	 Am1855.1220.228 Cape Prince of Wales	 E48523 Cape Darby	 1886.1.693 East Cape	 E44398 Cape Nome	 Am1855.1220.228 Cape Prince of Wales



<p>palraiyyuk</p> <p>myth creature shown with long neck, narrow body and wavy horns; being snared and killed; attacking animals and men on land and in the water</p>	 94-57-10/R106 Point Barrow II	 E33187 Point Barrow II	 E176194 Cape Nome	 E48521 Point Barrow II	 NA455 Point Barrow II	 1886.1.693 East Cape
<p>walrus dog</p> <p>myth creature with slender body and short pointy ears; shown as a single subject or with young; attacking animals and men on land and in the water</p>	 27.4.61/32 East Cape	 1884.140.488 Cape Prince of Wales	 1886.1.693 East Cape	 Am1949.22.26 Cape Prince of Wales	 E33187 Point Barrow II	 1884.98.47 Cape Prince of Wales
<p>seal transformation</p> <p>myth figure with head and/or arms of man and body of seal; shown in pairs, in a row, or as a family group; shown swimming or on the ice</p>	 94-57-10/R106 Point Barrow II	 E64153 Cape Prince of Wales	 1886.1.693 East Cape	 E45022 Cape Darby	 E33187 Point Barrow II	 Am.8210 Cape Prince of Wales
<p>shaman divided</p> <p>figure standing between two curved lines or bands</p>	 98-18-10/52140 Point Barrow II	 1884.68.20 Cape Prince of Wales				
























<p>shaman (with helping spirit) <i>tuungaqtalik</i></p> <p>figure shown with lines attached to animals or myth creatures</p>	 1886.1.695 Indian Point	 15324 Cape Prince of Wales	 33.238 Indian Point			
<p>shaman with animals</p> <p>figure shown grasping or standing between two opposite facing creatures</p>	 20418 Cape Darby	 Am.8209 Cape Prince of Wales	 Am.9367 Cape Prince of Wales	 1884.98.47 Cape Prince of Wales	 60/1252 Hotham Inlet	 1884.98.47 Cape Prince of Wales
<p>shaman in qagri (who casts spells) <i>ijisiiaq</i></p> <p>figure shown engaged with activities inside qagri involving flying figures, myth creatures, dancing and whale flukes</p>	 E48522 Point Barrow II	 E44398 Cape Nome	 Am1949.22.26 Cape Prince of Wales	 E43360 Cape Prince of Wales	 1884.68.20 Cape Prince of Wales	 E48116 Cape Darby
<p>tazmanian</p> <p>myth creature with ovoid body, pointy ears and raised arms; shown as a single subject or in rows</p>	 98-18-10/52140 Point Barrow II	 E129222 Cape Darby	 E46054 Point Barrow II	 1884.98.47 Cape Prince of Wales	 1884.98.48 Cape Prince of Wales	 1884.68.22 Cape Prince of Wales





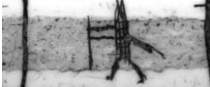


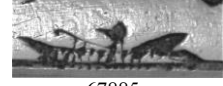
<p>thunderbird <i>mutughowik</i></p> <p>myth creature with large wings shown attacking caribou or walrus</p>	 60/6241 Point Barrow II	 E45025 Sledge Island	 4501 Hotham Inlet	 SJ-II-V-125 Point Barrow II	 15324 Cape Prince of Wales	
<p>tirisuk</p> <p>myth creature with long body, short legs and jaws with sharp teeth; shown with strong man; attacking animals and men on land and in the water</p>	 1886.1.692 East Cape	 E33187 Point Barrow II	 Am1949.22.26 Cape Prince of Wales	 E176194 Cape Nome	 E33182 Point Barrow II	 E44464 Sledge Island
<p>walrus transformation</p> <p>myth figure with arms and/or legs of man with head and body of walrus; shown as a single subject or in rows; swimming and on the ice</p>	 E33187 Point Barrow II	 E176171 Hotham Inlet	 E48524 Point Barrow II	 27.4.61/32 East Cape	 94-57-10/R106 Point Barrow II	 177755 Point Barrow II
<p>wolf transformation</p> <p>myth figure with wolf head, human arms, and human legs or whale tail; shown as a single subject swimming</p>	 94-57-10/R106 Point Barrow II	 E48524 Point Barrow II				















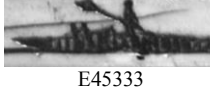



<p>umiaq myth</p> <p>umiaq with head and tail of a palraiuyuk; shown with human or creature hunting crews</p>	 <p>94-57-10/R106 Point Barrow II</p>	 <p>E33187 Point Barrow II</p>	 <p>94-57-10/R106 Point Barrow II</p>	 <p>E48525 Cape Darby</p>		
<p>Objects</p>						
<p>armor <i>anjuyaunnat</i></p> <p>shown as a single subject or in rows; worn in warfare or hunting caribou</p>	 <p>27.4.61/32 East Cape</p>	 <p>20418 Cape Darby</p>	 <p>67-9-10/144 Little Diomede</p>	 <p>II-A-4455 Cape Darby</p>	 <p>IV-E-54 Unalakleet</p>	
<p>axe <i>ipigautaq</i></p> <p>shown used in warfare or to chop wood and ice</p>	 <p>2-4124 Indian Point</p>	 <p>04-28-10/63546 Cape Nome: Golovin</p>	 <p>II-A-6466 Point Hope</p>			
<p>barrel <i>qattaġruk</i></p> <p>shown with contents being stirred</p>	 <p>2-1559 Cape Nome: Golovin</p>					
<p>bola <i>tijmiagniasuti</i></p> <p>shown being thrown into a flock of birds</p>	 <p>Am1855.1126.224 Cape Prince of Wales</p>	 <p>54337 Cape Darby</p>				




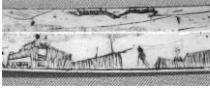








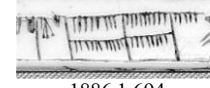



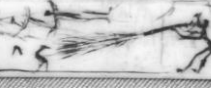





<p>boots <i>mukluks</i></p> <p>shown hanging up to dry in a tent, on a pole next to a sod house or from a cache</p>	 246479 Cape Nome: Golovin	 1973.017.001 Cape Nome	 E44467 Sledge Island	 E45021 Sledge Island	 II-A-10 Cape Darby	 II-A-4105 Nome
<p>bucket <i>qattauraq</i></p> <p>carried and used as a container for fish and berries</p>	 Am1855.1220.229 Indian Point	 E176191 Sledge Island	 1884.68.22 Cape Prince of Wales	 246479 Cape Nome: Golovin	 E38886 Hotham Inlet	 29-151-279 Nome
<p>campfire <i>iknipiaq</i></p> <p>shown in summer camp scenes with feather-like smoke or spray; shown with figures cooking food</p>	 33.238 Indian Point	 2-1562 Cape Darby	 E44464 Sledge Island	 E45021 Sledge Island	 60/6241 Point Barrow II	 97-84-570 Hotham Inlet
<p>cache <i>ikiggaq</i></p> <p>open platform cache shown in villages next to sod houses; contents covered and often depicted as a semi-circular lump; figures shown climbing ladders, standing on top of goods and dancing under cache; used as a drying rack for boots or fish</p>	 E33180 Cape Nome	 1973.017.001 Cape Nome	 E24545 Cape Nome	 1976.68 Cape Nome	 2-38438 Sledge Island	 II-A-4 Nome













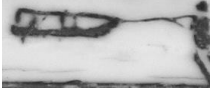
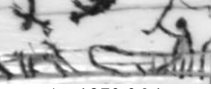


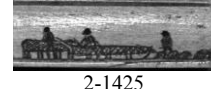

<p>canvas tent <i>sisamalik</i></p> <p>shown as a four-paneled tent with stakes; often seen in summer camp scenes with Western figures</p>	 04-28-10/63546 Cape Nome: Golovin	 2-6974 Cape Nome: Golovin	 E274548 St. Michael	 E43932 Hotham Inlet	 E44366 St. Michael	 E44213 Cape Nome: Golovin
<p>cooking pot <i>utkusik</i></p> <p>shown next to a campfire, often with contents being stirred</p>	 E24541 Cape Nome	 E24545 Cape Nome	 E38886 Hotham Inlet	 Am1999.02.1 Cape Nome	 1886.1.693 East Cape	 II-A-6466 Point Hope
<p>drill bow <i>pitiksiiaq</i></p> <p>shown held in front of a figure who uses the bow with a rectangular hearth</p>	 IV-E-56 Unalakleet					
<p>fishnet <i>kuvraq</i></p> <p>shown stretched between posts; tied off to tent or umiaq; staked to the ground; tended to by figure; trapping fish, seal and small whales</p>	 Am.9367 Cape Prince of Wales	 246479 Cape Nome: Golovin	 E64152 Hotham Inlet	 E129222 Cape Darby	 0/498 Pastolik	 II-A-7340 Nome

<p>flag <i>takuyaq</i></p> <p>shown waving on dog sleds, umiat and paddle steamers or staked within Western settlements</p>	 60/6241 Point Barrow II	 SJ-II-V-125 Point Barrow II	 2-1561 St. Michael	 E44366 St. Michael	 E274548 St. Michael	
<p>Western building</p> <p>large wooden structure shown isolated or within a Western settlement; shown with Native tents in the surrounding area</p>	 2-1562 Cape Darby	 2-1425 St. Michael	 60.1/4227 St. Michael	 E44206 St. Michael	 II-A-4105 Nome	 II-A-7340 Nome
<p>frame house <i>tupiq</i></p> <p>house with straight walls, chimneys, doors or windows shown in Western camps or in Native villages</p>	 E48519 Point Barrow II	 SJ-II-V-125 Point Barrow II	 Am1925.0508.3 Nome	 NA9387 East Cape	 2-1562 Cape Darby	 II-A-6466 Point Hope
<p>harpoon <i>naulik</i></p> <p>shown with or without line attached to sealskin floats; used by figures to hunt whale, walrus and seal</p>	 II-A-13 Cape Prince of Wales	 E43931 Little Diomede	 E67904 Hotham Inlet	 E176194 Cape Nome	 Am1970.06.1 East Cape	 1973.017.001 Cape Nome



















<p>house on posts <i>tupiqayaich</i></p> <p>square house with skin walls set on tall posts; shown as an isolated structure or next to sod houses within a village</p>	 E45021 Sledge Island	 1884.68.21 Cape Nome	 SJ-II-J-91 Little Diomede	 NA460 Little Diomede	 E49163 Little Diomede	 2-1559 Cape Nome: Golovin
<p>hunting bag <i>agginaq</i></p> <p>shown carried across the back or in scenes of hunting caribou, seal and geese</p>	 E24541 Cape Nome	 E44210 Cape Darby	 E44206 St. Michael	 E/632 Hotham Inlet	 E33188 St. Michael	 Am1999.02.2 Cape Nome
<p>hunting blind</p> <p>used when hunting seal, walrus, birds and caribou</p>	 Am1855.1126.224 Cape Prince of Wales	 Am1855.1220.227 Cape Prince of Wales	 Am.8210 Cape Prince of Wales	 NA9387 East Cape	 Am1970.06.1 East Cape	 II-A-10 Cape Darby
<p>ice chisel <i>tuuq</i></p> <p>ivory or metal point on long pole used to make holes for fishing, break ice for water, or secure a foothold</p>	 Am1983.27.1 Point Hope	 1886.1.694 East Cape	 12598 Hotham Inlet	 1884.68.20 Cape Prince of Wales	 II-A-2 Nome	 2-1291 Indian Point
<p>kayak <i>qayaq</i></p> <p>shown on rack in village; pulled on runners; used to hunt waterfowl, caribou, walrus and beluga</p>	 1886.1.692 East Cape	 E48526 Hotham Inlet	 67-9-10/144 Little Diomede	 67885 Cape Darby	 1976.68 Cape Nome	 E24547 Pastolik






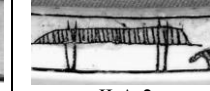


















<p>kayak on rack</p> <p>kayak stored upside down on a rack</p>	 <p>2-4550 Hotham Inlet</p>	 <p>E44367 Cape Nome</p>	 <p>E33189 Pastolik</p>	 <p>01.27.01 Nome</p>		
<p>map</p> <p><i>nunauraq</i></p> <p>outline of coastline around Kotzebue Sound</p>	 <p>II-A-7 Modern</p>					
<p>mask</p> <p><i>kigiñag uq</i></p> <p>shown as a single subject with a triangular-shaped face</p>	 <p>60/1252 Hotham Inlet</p>	 <p>IV-E-56 Unalakleet</p>				
<p>memorial pole</p> <p><i>nappaqutaq</i></p> <p>tall pole outside a qagri topped with a bird, caribou or wolf carving</p>	 <p>E24541 Cape Nome</p>	 <p>246479 Cape Nome</p>	 <p>1884.68.21 Cape Nome</p>	 <p>SJ-II-V-125 Point Barrow II</p>	 <p>E154071 Point Barrow II</p>	
<p>paddle</p> <p><i>ajuun</i></p> <p>shown in the water, raised over the head, hanging from an upturned umiaq, and resting on a kayak; used by figures in umiat and kayaks</p>	 <p>E63623 Little Diomede</p>	 <p>60.1/8339 Point Hope</p>	 <p>E45333 East Cape</p>	 <p>E48527 Cape Nome</p>	 <p>E44208 Sledge Island</p>	 <p>Am1925.0508.3 Nome</p>








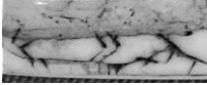





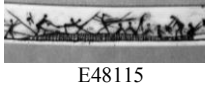









<p>paddle steamer</p> <p>shown as an isolated subject or in scenes with additional Western ships</p>	 2-1561 St. Michael	 2-1425 St. Michael	 E24536 Unalakleet			
<p>qagri <i>qagri</i></p> <p>large structure in village shown with figures entering through roof; dancing on top of and inside; feasting in the interior</p>	 E45025 Sledge Island	 Am1999.02.2 Cape Nome	 2-1561 St. Michael	 E48115 Cape Darby	 E48519 Point Barrow II	 E44367 Cape Nome
<p>rack <i>iññisaq</i></p> <p>shown with hanging fish, sealskins, caribou skins and antlers, boots, parkas and mittens; illustrated with bears and dogs interested in drying food</p>	 04-28-10/63546 Cape Nome: Golovin	 E24541 Cape Nome	 54337 Cape Darby	 1886.1.694 East Cape	 E45021 Sledge Island	 29-151-279 Nome
<p>firearm (rifle) <i>suppun</i></p> <p>shown as a rifle or shotgun used by a single figure to hunt caribou, seal and geese</p>	 0/62 St. Michael	 E176191 Sledge Island	 E44206 St. Michael	 E24543 Pastolik	 13461 Pastolik	 II-A-4 Nome
<p>river boat</p> <p>shown being used by Westerners outside of a Native village</p>	 04-28-10/63546 Cape Nome: Golovin					













<p>sealskin float <i>puqtaun</i></p> <p>inflated sealskin shown attached to harpoon line; used when hunting whale and walrus</p>	 2003-1-10 Hotham Inlet	 Am1970.06.1 East Cape	 E45333 East Cape	 E44367 Cape Nome	 E43931 Little Diomede	 II-A-4 Nome
<p>ship <i>umiaqpak</i></p> <p>shown as a single subject and in fleets; trading with umiat; sailors embarking in barges; engaged in hunting whale and walrus</p>	 52955 Sledge Island	 2-1559 Cape Nome: Golovin	 E38886 Hotham Inlet	 15.24 St. Michael	 1973.017.001 Cape Nome	 97-84-457 Indian Point
<p>sled <i>uniat</i></p> <p>flat sled, basket sled and Siberian-style sled with curved runners; shown pulled by dogs and figures, stored on racks, used as seating at festivals, and packed for travel</p>	 12587 Point Barrow	 Am1970.06.1 East Cape	 E48115 Cape Darby	 2-6974 Cape Nome: Golovin	 2-1425 St. Michael	 01.27.01 Nome













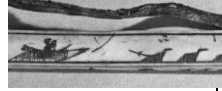











<p>snare (caribou) <i>nigaq</i>; (small game) <i>magluqsaaq</i></p> <p>snares with lines made from sinew or ugruk skin used to catch and kill caribou, small mammals, ducks and geese</p>	 E48115 Cape Darby	 1886.1.694 East Cape	 15324 Cape Prince of Wales	 SJ-II-J-91 Little Diomede	 IV-E-56 Unalakleet	 49589 Nome: Naomoff
<p>snowshoes <i>tagluk</i></p> <p>worn by figure(s) across the snow</p>	 E44366 St. Michael	 E64152 Hotham Inlet	 E44206 St. Michael	 33.238 Indian Point		
<p>sod house <i>ivrulik</i></p> <p>shown as a single subject or grouped together in villages; smoke issuing from roof; figures waving, dancing or playing ball on top of roof; poles suspended from house with drying fish, boots and parkas; invaders climbing roofs and attacking; dogs standing on roofs</p>	 Am.6745 Indian Point	 E33180 Cape Nome	 2-1562 Cape Darby	 E176191 Sledge Island	 E45021 Sledge Island	 01.27.01 Nome






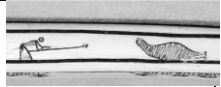























<p>spear <i>pana</i></p> <p>shown used in warfare or to hunt caribou and bear in conjunction with a bow and arrow</p>	 E45016 East Cape	 E45345 St. Michael	 E44467 Sledge Island	 1884.68.21 Cape Nome	 1884.98.47 Cape Prince of Wales	 II-A-7340 Nome
<p>tent <i>tupiq</i></p> <p>conical or round tent shown at summer camp or outside of Western settlements; used to dry boots and fish; shown with figures entering, exiting and engaging in sexual activity</p>	 2-10898 Cape Nome	 E43931 Little Diomede	 E24545 Cape Nome	 97-84-570 Hotham Inlet	 0/62 St. Michael	 II-A-4105 Nome
<p>umiaq <i>umiaq</i></p> <p>single or multiple skin boats shown within scenes of hunting bowhead, walrus and myth creatures; stored on racks in village; being carried or pulled up onto the shore; with figures using paddles, harpoons and sealskin floats; trading with Western ships; using sails to travel</p>	 27.4.61/32 East Cape	 SJ-II-K-106 Point Hope	 NA455 Point Barrow II	 E43931 Little Diomede	 246479 Cape Nome: Golovin	 II-A-4 Nome












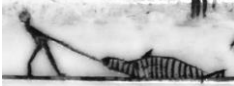




<p>umiaq on rack</p> <p>shown as a single subject or in a row within a village or summer camp; paddles and boots hanging from the sides; figures and dogs underneath</p>						
<p>umiaq with sail <i>umiam</i> <i>tijilgautaja</i></p> <p>shown as a single subject or in groups within scenes of hunting and travelling</p>						
<p>whaling charm <i>aanguaq</i></p> <p>shown suspended from the bow of an umiaq while hunting bowhead</p>						
<p>yurt <i>mangteghapik</i></p> <p>shown in rows in village scenes with figures, dogs and reindeer</p>						
<p>Activities</p>						






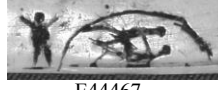






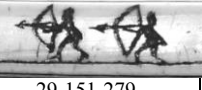

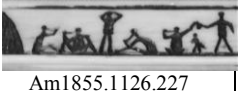



<p>carrying an umiaq <i>saagaqumiaq</i></p> <p>figures shown carrying an umiaq by their sides and over their heads to and from the shore</p>						
<p>cutting up caribou <i>piḷaktuttu</i></p> <p>single figure shown skinning and cutting up a killed caribou</p>						
<p>cutting up whale <i>piḷakaḡviq</i></p> <p>figures shown cutting up whale on the shore with knives and long-handled picks; passing squares of meat and blubber to each other; dragging away cut sections</p>						
<p>dancing <i>uamit</i></p> <p>dancing figures in a variety of poses wearing headdresses and beating round skin drums; shown dancing outside, in an umiaq or in a qagri</p>						
<p>E176172 Cape Nome: Golovin</p>	<p>1884.98.48 Cape Prince of Wales</p>	<p>E44398 Cape Nome</p>	<p>E48115 Cape Darby</p>	<p>E176171 Hotham Inlet</p>	<p>1973.017.001 Cape Nome</p>	
<p>54337 Cape Darby</p>	<p>E48115 Cape Darby</p>	<p>1884.68.21 Cape Nome</p>	<p>2-10898 Cape Nome</p>	<p>E44206 St. Michael</p>		
<p>27.4.61/32 East Cape</p>	<p>E176191 Sledge Island</p>	<p>E48115 Cape Darby</p>	<p>2-4124 Indian Point</p>	<p>1884.98.48 Cape Prince of Wales</p>	<p>II-A-10 Cape Darby</p>	
<p>1886.1.695 Indian Point</p>	<p>SJ-II-V-125 Point Barrow II</p>	<p>Am1970.06.1 East Cape</p>	<p>1886.1.692 East Cape</p>	<p>NA9387 East Cape</p>	<p>E45346 Indian Point</p>	

























<p>dancing in qagri</p> <p>figures dancing and drumming inside a qagri; shown dancing in the center and seated on benches along the wall; other figures depicted looking down at dancing through roof entrance</p>	 <p>E33187 Point Barrow II</p>	 <p>1886.1.694 East Cape</p>	 <p>E44367 Cape Nome</p>	 <p>2-4120 Little Diomed</p>	 <p>52955 Sledge Island</p>	 <p>E176172 Cape Nome: Golovin</p>
<p>dancing in umiaq</p> <p>figures shown seated or standing in an umiaq with raised arms and tilted bodies</p>	 <p>Am1949.22.22 East Cape</p>	 <p>177756 Hotham Inlet</p>	 <p>2-4121 Cape Darby</p>	 <p>Am.1368 Sledge Island</p>	 <p>1886.1.695 Indian Point</p>	 <p>60/2122 Hotham Inlet</p>
<p>high kick <i>aqsraatchiaq</i></p> <p>figure shown jumping to kick ball suspended above the head; ball attached to tall pole stuck in the ground or projecting from cache</p>	 <p>Am1855.1126.224 Cape Prince of Wales</p>	 <p>E24541 Cape Nome</p>	 <p>E33179 Hotham Inlet</p>	 <p>246479 Cape Nome: Golovin</p>	 <p>E176172 Cape Nome: Golovin</p>	 <p>E48522 Point Barrow II</p>
<p>hunting bear <i>nannuk</i></p> <p>single or group of figures shown hunting bear with a spear and/or bow and arrow</p>	 <p>E33182 Point Barrow II</p>	 <p>Am1949.22.22 East Cape</p>	 <p>E24541 Cape Nome</p>	 <p>E24539 Unalakleet</p>	 <p>0/62 St. Michael</p>	 <p>94635 Nome</p>


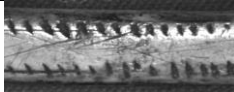

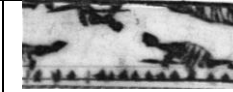
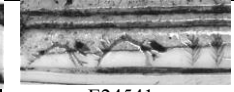




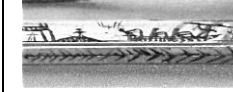








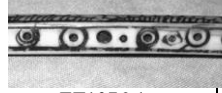





<p>hunting caribou on land <i>tuttunniaq</i></p> <p>single or group of figures shown hunting a single caribou or caribou herd with a spear, rifle, or bow and arrow</p>						
	15.24 St. Michael	E43931 Little Diomede	54337 Cape Darby	II-A-10 Cape Darby	1886.1.694 East Cape	49589 Nome: Naomoff
<p>hunting caribou in the water</p> <p>figure in kayak with a spear shown hunting caribou swimming in the water</p>						
	27.4.61/32 East Cape	Am1855.1220.229 Indian Point	1973.017.001 Cape Nome	II-A-10 Cape Darby	1886.1.694 East Cape	Am1949.22.23 East Cape
<p>hunting waterfowl (ducks) <i>qaukkiaq</i></p> <p>hunting ducks, geese and swans in a kayak or on land with a bird spear</p>						
	E63623 Little Diomede	E44367 Cape Nome	246479 Cape Nome: Golovin	E63802 Point Barrow II	SJ-II-P-13 Little Diomede	1886.1.693 East Cape
<p>hunting seal in the water</p> <p>figure in kayak shown with a harpoon or rifle hunting large seal in the water or on an ice floe</p>						
	Am1949.22.23 East Cape	E45346 Indian Point	E33189 Pastolik	12591 Unalakleet	2003-1-10 Hotham Inlet	67-9-10/144 Little Diomede

<p>hunting seal on the ice</p> <p>figure with a harpoon, spear or rifle hunting seal on the ice often close to a breathing hole</p>	 <p>27.4.61/32 East Cape</p>	 <p>1886.1.692 East Cape</p>	 <p>E24539 Unalakleet</p>	 <p>E63802 Point Barrow II</p>	 <p>2-1559 Cape Nome: Golovin</p>	 <p>II-A-5 Nome</p>
<p>hunting seal with snares</p> <p>figure(s) with snares set under the ice to catch seals</p>	 <p>E/632 Hotham Inlet</p>	 <p>E64152 Hotham Inlet</p>	 <p>E67904 Hotham Inlet</p>	 <p>2-4125 Hotham Inlet</p>	 <p>49587 Nome: Naomoff</p>	
<p>hunting walrus <i>aivvak</i></p> <p>figures in umiat, kayaks and on foot shown hunting walrus with harpoons and spears on the ice and in the water</p>	 <p>2-4124 Indian Point</p>	 <p>67-9-10/144 Little Diomede</p>	 <p>E43360 Cape Prince of Wales</p>	 <p>E24545 Cape Nome</p>	 <p>Am1949.22.22 East Cape</p>	 <p>E44399 Sledge Island</p>
<p>hunting whale <i>agviqsiuq</i></p> <p>figures in umiat or kayaks shown hunting whales with harpoons</p>	 <p>Am1970.06.1 East Cape</p>	 <p>2-4121 Cape Darby</p>	 <p>67-9-10/144 Little Diomede</p>	 <p>E48527 Cape Nome</p>	 <p>II-A-6466 Point Hope</p>	 <p>II-A-5 Nome</p>
<p>ice fishing <i>niksiksiuq</i></p> <p>single figure or groups of figures shown seated or standing on the ice with fishing sticks and hooked fish</p>	 <p>E45016 East Cape</p>	 <p>E45025 Sledge Island</p>	 <p>SJ-II-V-125 Point Barrow II</p>	 <p>60/6241 Point Barrow II</p>	 <p>29-151-279 Nome</p>	 <p>II-A-6577 Modern</p>

<p>metalworking <i>savaksavilhaq</i></p> <p>pair of figures working a small metal forge</p>	 Am1855.1126.227 East Cape					
<p>picking berries <i>aullaqsruq</i></p>	 Am1855.1220.229 Indian Point					
<p>playing kickball <i>aqsraaq</i></p> <p>group of figures shown chasing a hide ball on the ground</p>	 2-6974 Cape Nome: Golovin	 II-A-6466 Point Hope				
<p>pulling a kayak <i>kalitkaa kayaq</i></p> <p>single figure shown pulling a kayak on runners to and from the shore</p>	 04-28-10/63546 Cape Nome: Golovin	 E44367 Cape Nome	 1886.1.694 East Cape	 E44398 Cape Nome	 2-6974 Cape Nome: Golovin	 1886.1.695 Indian Point
<p>pulling a seal <i>kalitkaa natchiq</i></p> <p>figure(s) carrying ice chisels shown with lines across their backs and shoulders pulling killed seal back to a village or camp</p>	 1886.1.692 East Cape	 246479 Cape Nome: Golovin	 ET1076-0 Sledge Island	 E154071 Point Barrow II	 II-A-7340 Nome	 II-A-3 Nome

<p>seining for fish <i>qaaktuq</i></p> <p>figures and umiaq shown working to pull net and trap fish</p>	 1884.98.47 Cape Prince of Wales	 IV-E-1116 Unalakleet	 1886.1.693 East Cape			
<p>sexual activity <i>qalligiik</i></p> <p>pairs of figures with interlocked bodies shown outside or lying in tents and sod houses; third figure often seen looking through the entrance</p>	 2-4121 Cape Darby	 1884.140.488 Cape Prince of Wales	 4501 Hotham Inlet	 E44467 Sledge Island	 E48518 Little Diomede	 Am1949.22.22 East Cape
<p>shooting a bow <i>pisiksaq</i></p> <p>single hunter or a pair of hunters shown shooting a bow and arrow to hunt bear, caribou and geese</p>	 Am.6745 Indian Point	 Am1999.02.1 Cape Nome	 E48527 Cape Nome	 E24553 St. Michael	 1884.68.21 Cape Nome	 29-151-279 Nome
<p>smoking a pipe <i>taugaaqiq</i></p> <p>Native and Western figures shown smoking pipes standing, sitting, in camp, on sleds watching dancing, during hallucinogenic visions</p>	 E24541 Cape Nome	 Am1855.1126.227 East Cape	 1886.1.693 East Cape	 E24539 Unalakleet	 Am1949.22.22 East Cape	 2-1559 Cape Nome: Golovin




<p>trading <i>akitchaktuq</i></p> <p>figures in umiat and kayaks shown paddling out to Western ships to trade goods</p>	 E176172 Cape Nome: Golovin	 E45020 Sledge Island	 E45333 East Cape	 E176171 Hotham Inlet	 52955 Sledge Island	 NA9387 East Cape
<p>travelling by umiak <i>umiaqtuq</i></p> <p>rows of umiat with multiple figures; figures shown paddling, standing, waving, and sitting on bow</p>	 E44399 Sledge Island	 54337 Cape Darby	 1886.1.694 East Cape	 Am1983.27.1 Point Hope	 E45017 Sledge Island	 Am.1368 Sledge Island
<p>warfare <i>anuyak</i></p> <p>figures attacking each other with spears, axes or bows and arrows; shown fighting on land and in umiat</p>	 67-9-10/144 Little Diomede	 NA456 Little Diomede	 IV-E-56 Unalakleet	 E176191 Sledge Island	 E24557 Pastolik	 1886.1.692 East Cape
<p>Abstract</p>						
<p>barbed band</p> <p>used as a decorative element; divides motif scenes; used to form arches and enclose creatures</p>	 98-18-10/52140 Point Barrow II	 E48527 Cape Nome	 1884.98.47 Cape Prince of Wales	 E24540 Indian Point	 Am1949.22.22 East Cape	 49587 Nome: Naomoff


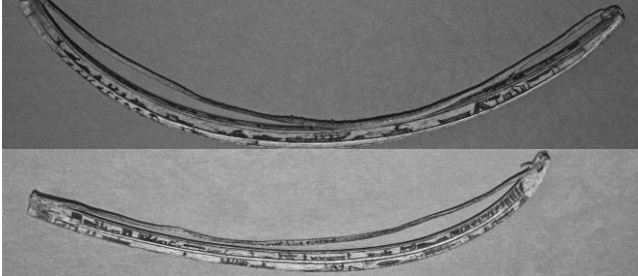

<p>barbed line</p> <p>used as a decorative element; being used to encircle lash holes; replicates grass on the baseline; forms animal bodies and the interior of tents</p>						
<p>Am1925.0508.3 Nome</p>	<p>E379814 Little Diomede</p>	<p>2-4124 Indian Point</p>	<p>E38886 Hotham Inlet</p>	<p>E24541 Cape Nome</p>	<p>ET16060 Little Diomede</p>	
<p>pronged line</p> <p>used as a decorative element often on a bow's narrow side</p>						
<p>E24549 Unalakleet</p>	<p>E24533 Unalakleet</p>	<p>E24554 Indian Point</p>	<p>NA456 Little Diomede</p>	<p>Am.9367 Cape Prince of Wales</p>	<p>E33189 Pastolik</p>	
<p>CROSS <i>anarrauraq</i></p> <p>used as a decorative element; used to represent birds</p>						
<p>E24533 Unalakleet</p>	<p>2-4120 Little Diomede</p>	<p>1973.017.001 Cape Nome</p>	<p>ET1076-1 Point Barrow II</p>	<p>E33191 Indian Point</p>	<p>E45020 Sledge Island</p>	
<p>nucleated circle <i>aqvaluqtaaq</i> (circle)</p> <p>used as a decorative element; used to represent round skin drums</p>						
<p>ET1076-1 Point Barrow II</p>	<p>E24550 Pastolik</p>	<p>4488 Point Hope</p>	<p>SJ-II-V-125 Point Barrow II</p>	<p>Am1925.0508.3 Nome</p>	<p>97-84-457 Indian Point</p>	

*Iñupiaq names for these motifs derive mainly from the Malimiut dialect spoken in Northwest Alaska. There are many local and regional variations of these terms.

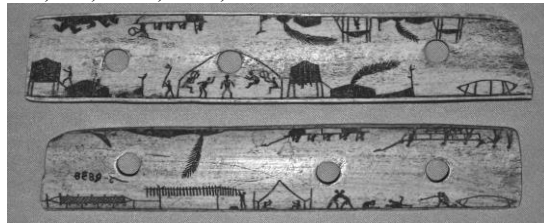
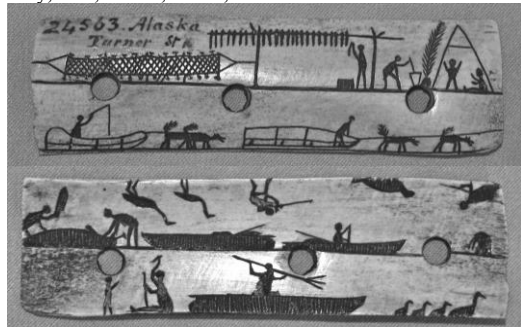
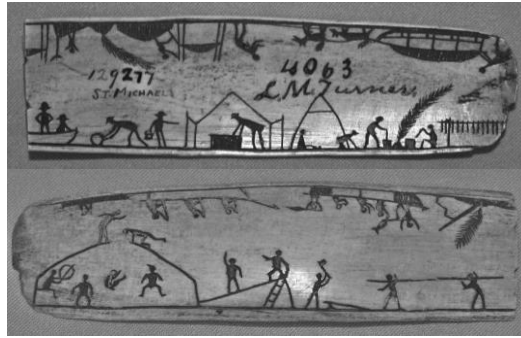
APPENDIX G

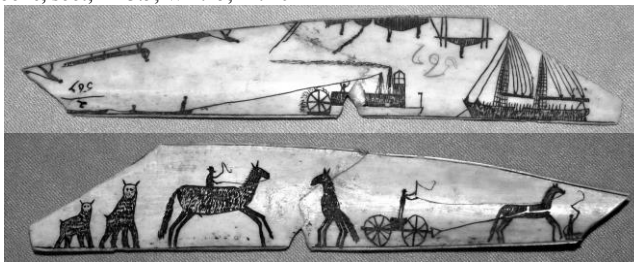
ENGRAVED CARVINGS BY A DRILL BOW ARTIST FROM GOLOVIN

Catalogue number	Year collected	Museum (current); accession number; materials; dimensions; image	Primary collectors; location acquired	Motifs
E176172	1877-1881	Smithsonian National Museum of Natural History; Acc. 31796; ivory, black ink; L 34.6, W 1.8, D 1.2 cm 	Edward Nelson; Golovin	bird, bowhead, fluke, seal, walrus, myth creature, drummer, figures embracing, giant, Westerner, cache, campfire, canvas tent, cooking pot, fishnet, hunting bag, kayak, paddle, qagri, rack, sealskin float, ship, sled, sod house, tent, umiaq, umiaq with sail, carrying umiaq, cooking food, dancing in qagri, high kick, hunting seal, whaling, trading
E44213	1877-1880	Smithsonian National Museum of Natural History; Acc. 80A00050; ivory, soot, graphite; L 33.2, W 1.2, D 1.1 cm 	Edward Nelson; Cape Darby	bowhead, gray whale, ermine, Westerner, canvas tent, fishnet, harpoon, kayak, qagri, rack, ship, sod house, tent, umiaq, umiaq with sail, dancing, whaling, trading
246479	-1972	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, soot, graphite; L 31, W 1.5, D .9 cm 	Alaska	bowhead, dog sled, fish, geese, walrus, figures embracing, figure with tail, horizontal figure, boots, bucket, cache, fishnet, harpoon, hunting bag, ice pick, kayak, pole with charm, rack, sealskin float, sod house, spear, tent, umiaq, umiaq with sail, high kick, hunting ducks, hunting walrus, whaling, pulling a seal, shooting a bow

2-1559	1894-1901	Phoebe A. Hearst Museum of Anthropology; Acc. 46; ivory, soot, bearded seal skin; L 39.8, W 1.9, D 1.5 cm 	Charles L. Hall; Alaska	caribou, dog, dog sled, geese, hare, horse, ringed seal, seal, wolf, figure with tail, myth creature, Westerner, plant, tree, barrel, cache, kayak, ship, shotgun, sod house, staff, umiaq on rack, hunting caribou, hunting geese, hunting seal, riding a horse, smoking a pipe
04-28-10/63546	1894-1901	Peabody Museum of Archaeology and Ethnology; Acc. 04-28-10; ivory, soot, bearded seal skin; L 34.5, W 1.7, D 1 cm 	Charles L. Hall; Lower Yukon River	animal skin, dog sled, ducks, fish, geese, seal, wolf, plant, axe, cache, canvas tent, cooking pot, fishnet, kayak, ladder, rack, river boat, shotgun, sled, sod house, spear, tent, umiaq, umiaq on rack, cooking food, hunting geese, hunting seal, pulling a kayak, pulling a seal
2-6974	1889-1904	Phoebe A. Hearst Museum of Anthropology; Acc. 128; ivory, soot, bearded seal skin; L 48.3, W 1.4, D 1 cm 	H. M. W. Edmonds; Alaska	caribou, dog, ducks, fluke, hare, raven, seal, walrus, ermine, figures embracing, cache, canvas tent, harpoon, kayak, rack, sealskin float, shotgun, sled, snare, sod house, spear, tent, umiaq on rack, umiaq with sail, dancing, hunting caribou, hunting ducks, hunting seal, hunting walrus, whaling, playing kickball, pulling a kayak, pulling a seal, shooting a bow

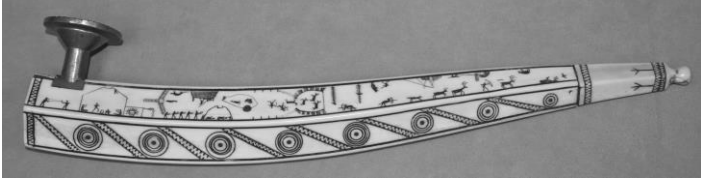
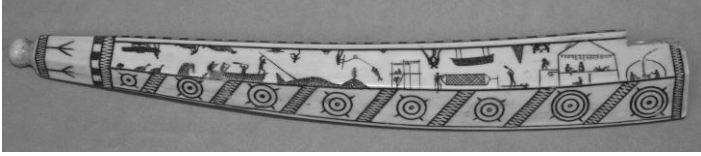

E129277	-1887	Smithsonian National Museum of Natural History; Acc. 19248; ivory, soot; L 10.9, W 3.1, D .25 cm	Lucien M. Turner; St. Michael	bowhead, dog sled, drummer, Westerner, axe, cache, campfire, canvas tent, cooking pot, harpoon, kayak, qagri, rack, sealskin float, sod house, tent, umiaq, dancing in qagri, whaling
E24563	1874-1876	Smithsonian National Museum of Natural History; Acc. 76A00100; ivory, soot; L 10.5, W 2.9, D .45 cm	Lucien M. Turner; Norton Sound	dog sled, geese, seal, walrus, campfire, cooking pot, fishnet, firearm, kayak, rack, spear, tent, hunting geese, hunting seal, hunting walrus
2-6838	-1898	Phoebe A. Hearst Museum of Anthropology; Acc. 167; bone, soot; L 17.7, W 3.1, D .5 cm	Alaska Commercial Company; Alaska	bowhead, raven, walrus, drummer, figures wrestling, axe, cache, canvas tent, firearm, fishnet, harpoon, rack, sod house, tent, umiaq, carrying umiaq, dancing in qagri, hunting walrus, smoking a pipe, whaling



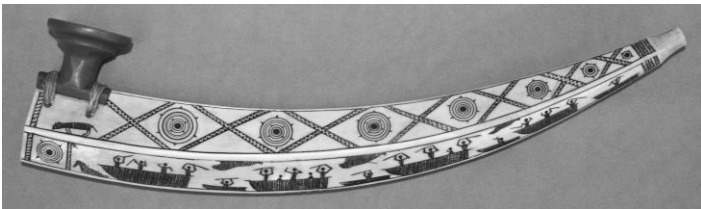





2-567	1894-1901	Phoebe A. Hearst Museum of Anthropology; Acc. 46; bone, soot; L 13.5, W 2.45, D .2 cm 	Charles L. Hall; Alaska	horse, myth creature, Westerner, cache, ship, sod house, paddle steamer, umiaq, pulling a kayak, pulling a seal, riding a horse
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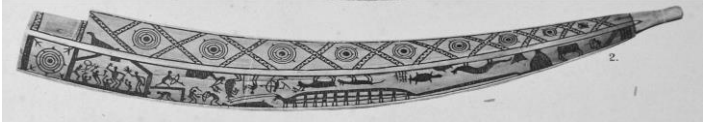
APPENDIX H

ENGRAVED IVORY PIPES BY A DRILL BOW ARTIST FROM ST. MICHAEL

Catalogue number	Year collected	Museum (current); accession number; materials; dimensions; image	Primary collectors; location acquired	Motifs
EL228	1883-1886	Smithsonian National Museum of Natural History; Acc. 0; ivory, lead, copper, baleen; L 36, H 7.2, W 2.5 cm; Bowl diameter 4.3 cm 	George Morse Stoney; Kotzebue Sound	bear, beaver, beaver dam, caribou, caribou carcass, caribou corral, ermine, fish, fish trap, fox, raven, wolf, drummer, tree, mask, fort, snare, spear, qagri, bringing gifts, dancing in qagri, hunting bear, hunting caribou, hunting wolf, pulling rope, shooting a bow, trapping, warfare, barbed band, nucleated circle, pronged line
EL229	1883-1886	Smithsonian National Museum of Natural History; Acc. 0; ivory; L 30.3, H 4.25, W 2.75 cm 	George Morse Stoney; Kotzebue Sound	animal bladders, bowhead, bear, cache, caribou, caribou corral, dog sled, ermine, fish, fish trap, fox, geese, raven, seal, walrus, figures wrestling, tree, axe, fishnet, hunting bag, campfire, cooking pot, harpoon, paddle, snare, spear, qagri, tent, umiaq on rack, hunting bear, hunting caribou, hunting seal, picking berries, pulling a kayak, pulling a seal, shooting a bow, trapping, whaling, barbed band, nucleated circle, pronged line
IV-E-190	1868-1885	Canadian Museum of Civilization; Acc. Mercier ivory; L 35.2, H 8.4, W 3.1 cm 	Francois Mercier; Norton Sound	animal bladders, bowhead, bear, beaver, beaver dam, cache, caribou, caribou carcass, caribou corral, dog sled, ermine, fish, fish trap, geese, raven, seal, walrus, drummer, tree, axe, fishnet, hunting bag, campfire, cooking pot, fort, harpoon, kayak, snare, spear, qagri, tent, umiaq, bringing gifts, dancing in qagri, hunting bear, hunting caribou, hunting geese, hunting walrus, ice fishing, picking berries, playing kickball, pulling rope, pulling a kayak, pulling a seal, shooting a bow, warfare, whaling, barbed band, nucleated circle, pronged line

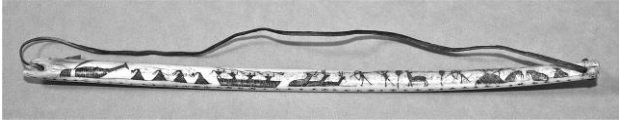
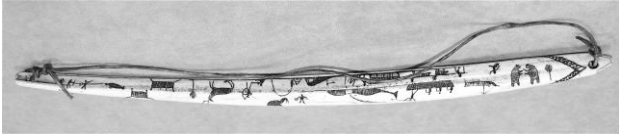


94-57-10/R138	-1894	Peabody Museum of Archaeology and Ethnology; Acc. 94-57-10 ivory; L 33.4, H 7.2, W 2.8 cm; Bowl diameter 4.4 cm 	Frederick H. Rindge; Point Barrow	animal bladders, cache, caribou, ermine, fish, fox, raven, walrus, drummer, tree, axe, fishnet, hunting bag, campfire, cooking pot, harpoon, kayak, kayak on rack, sealskin float, snare, sod house, spear, qagri, tent, umiaq, umiaq on rack, bringing gifts, dancing in qagri, hunting bear, hunting caribou, hunting walrus, picking berries, playing kickball, seining for fish, shooting a bow, trapping, warfare, Inviting in Festival, barbed band, nucleated circle, pronged line
19/434	1869	American Museum of Natural History; Acc. 1869-90-105 ivory; L 34.5, H 7.8, W 1.2 cm; Bowl diameter 4.6 cm 	George T. Emmons; Mouth of Yukon River	bowhead, bear, cache, caribou, dog, dog sled, geese, porcupine, seal, walrus, wolf, axe, campfire, cooking pot, harpoon, kayak, sealskin float, snare, sod house, spear, umiaq, cutting up caribou, fishing, hunting bear, hunting caribou, hunting geese, hunting seal, pulling a kayak, pulling a seal, shooting a bow, trapping, whaling, barbed band, nucleated circle, pronged line
E176286	-1897	Smithsonian National Museum of Natural History; Acc. 31796; ivory, stone, baleen, sinew, wood; L 31.5, H 6.85, W 2.5 cm; Bowl diameter 4 cm 	Edward Nelson; St. Michael	bowhead, caribou, seal, walrus, wolf, firearm, kayak, paddle, spear, umiaq, hunting caribou, hunting walrus, shooting a bow, barbed band, nucleated circle, pronged line





E360410	-1931	<p>Smithsonian National Museum of Natural History; Acc. 113605; ivory, lead, sinew, wood; L 33.3, H 5.92, W 2.0 cm; Bowl diameter 3.05 cm</p> 	Victor Justice Evans; Alaska	bear, beaver, bowhead, caribou, dog sled, ermine, seal, wolf, drummer, figure with tail, plant, kayak, paddle, qagri, sealskin float, umiaq, cutting up caribou, dancing in qagri, hunting bear, hunting caribou, hunting seal, shooting a bow, warfare, barbed band, nucleated circle, pronged line
E154075	-1892	<p>Smithsonian National Museum of Natural History; Acc. 25748; ivory; L 26.7, H 3.9, W 2.3 cm</p> 	Mildred McLean Hazen; Norton Sound	beluga, caribou, ermine, seal, walrus, giant worm, thunderbird, drummer, figure with tail, plant, axe, harpoon, kayak, paddle, qagri, sealskin float, umiaq, cutting up seal, dancing in qagri, hunting seal, pulling a kayak, pulling a seal, warfare, whaling, barbed band, nucleated circle, pronged line
1982.048.007ab	-1982	<p>Anchorage Museum at Rasmuson Center; Acc. 0 ivory, baleen, wood; L 36.1, H 7.7, W 2.42 cm; Bowl diameter 4.25 cm</p> 	Alaska	bear, beaver, beluga, bowhead, caribou, caribou corral, dog sled, ermine, fish, fish trap, seal, walrus, drummer, figure with tail, plant, cache, harpoon, kayak, kayak on rack, paddle, qagri, sealskin float, umiaq, umiaq on rack, cutting up caribou, cutting up seal, dancing in qagri, hunting bear, hunting caribou, playing kickball, pulling a kayak, shooting a bow, warfare, whaling, barbed band, nucleated circle, pronged line

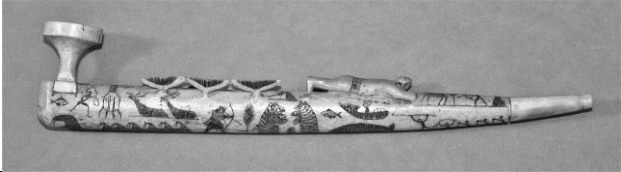
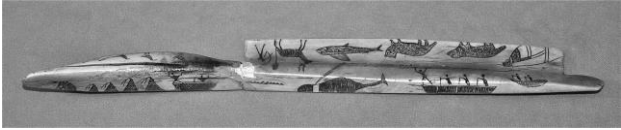


Acc.23102-1215		<p>Carnegie Museum of Natural History; Acc. 23102; ivory</p> 	John A. Beck; Alaska	beluga, bowhead, seal, giant worm, myth creature, walrus dog, drummer, figure with tail, harpoon, kayak, paddle, qagri, sealskin float, umiaq, cutting up seal, dancing in qagri, hunting seal, pulling a kayak, pulling a seal, whaling, barbed band, nucleated circle, pronged line
J.232 IVA 2677	1882-1883	<p>Ethnologisches Museum der Staatliche Museen zu Berlin; Acc. Jacobsen; ivory</p> 	Johan Adrian Jacobsen; Seward Peninsula	bear, beaver, caribou, ermine, seal, walrus, wolf, giant worm, walrus dog, drummer, figure with tail, plant, qagri, cutting up seal, dancing in qagri, hunting bear, hunting caribou, hunting seal, pulling a kayak, pulling a seal, shooting a bow, warfare, barbed band, nucleated circle, pronged line





APPENDIX I



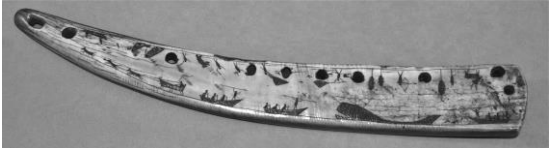
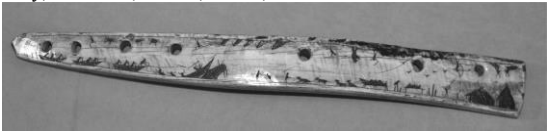
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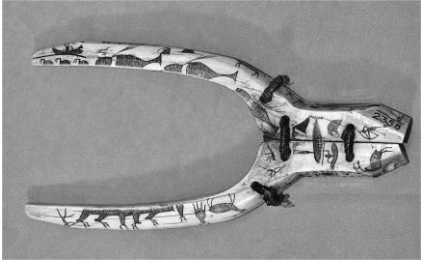


Catalogue number	Object	Year collected	Museum (current); accession number; materials; dimensions; image	Primary collectors; location acquired	Motifs
62376	drill bow	-1917	Smithsonian National Museum of the American Indian; ivory, soot, black ink, bearded sealskin; L 32.5, W 1.3, D 1 cm 	<i>Fred Harvey Collection</i> ; Alaska	bowhead, caribou swimming, walrus, tree, harpoon, paddle, umiaq, hunting caribou, hunting walrus, shooting a bow, barbed band, nucleated circle
49587	drill bow	-1897	The Field Museum; Acc. 1897.512; ivory, soot, bearded sealskin; L 39.9, W 2.5, D 2 cm 	Joseph F. Nathan; <i>E. E. Ayer</i> ; San Francisco	animal skin, bowhead, brown bear, caribou, caribou herd, ducks, dog sled, fish, gray whale, seal, shark, walrus, figure with tail, tree, cache, fishnet, harpoon, kayak, paddle, sealskin float, firearm, snare, sod house, tent, umiaq, umiaq with sail, herding reindeer, hunting caribou, hunting seal, hunting walrus, whaling, shooting a bow, barbed band
49589	drill bow	-1897	The Field Museum; Acc. 1897.512; ivory, graphite 	Joseph F. Nathan; <i>E. E. Ayer</i> ; San Francisco	carcass, caribou, dog sled, duck, tree, cache, snare, tent, hunting caribou, shooting a bow
62378	drill bow	-1917	Smithsonian National Museum of the American Indian; Acc. Absent; ivory, graphite, bearded sealskin; L 37.9, W 1.75, D 1.1 cm 	<i>Fred Harvey Collection</i> ; Alaska	bowhead, caribou, caribou herd, dog, dog sled, ducks, fish, polar bear, walrus, tree, kayak, spear, umiaq, hunting caribou, hunting waterfowl, hunting walrus

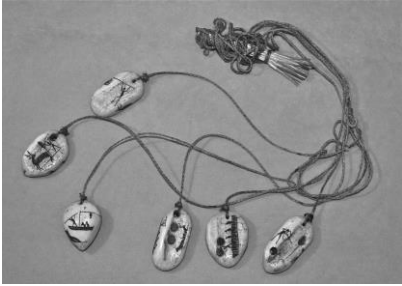
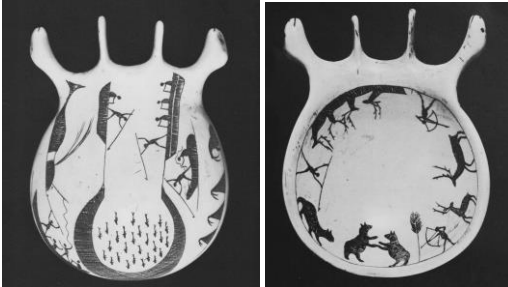

A.1901.81	drill bow	-1901	National Museum of Scotland; ivory, bearded sealskin 	Alaska	bowhead, caribou, caribou corral, caribou herd, walrus, harpoon, umiaq, hunting walrus, whaling,
106034	pipe	-1921	Smithsonian National Museum of the American Indian; ivory, black ink, paper; L 26.9, W 2.7 cm 	<i>George Heye</i> ; Nome	brown bear, caribou, caribou herd, crab, seal, walrus, figure with tail, tree, umiaq, cutting up caribou, hunting bear, shooting a bow, barbed band
13700	pipe	-1896	The Field Museum; Acc. 1896.112 ivory, graphite, red ocher 	<i>E. E. Ayer</i> ; Alaska	caribou, geese, walrus, tree, spear, hunting caribou, shooting a bow
49582	pipe	-1897	The Field Museum; Acc. 1897.512; ivory, graphite 	Joseph F. Nathan; <i>E. E. Ayer</i> ; San Francisco	bowhead, brown bear, caribou, caribou herd, caribou swimming, dog sled, walrus, tree, cache, harpoon, kayak, snare, tent, umiaq, dancing in umiaq, hunting caribou, hunting walrus, seining for fish, shooting a bow, whaling, nucleated circle



62449	pipe	-1917	Smithsonian National Museum of the American Indian; ivory, black ink; L 26.6, H 5, W 2.4 cm 	<i>Fred Harvey Collection</i> , Alaska	bowhead, brown bear, caribou, caribou swimming, fish, geese, walrus, walrus herd, tree, harpoon, kayak, umiaq, dancing in umiaq, hunting bear, hunting caribou, shooting a bow, whaling
62392	net mesher	-1917	Smithsonian National Museum of the American Indian; ivory, black ink; L 29.65, H 3, D 1.3 cm 	<i>Fred Harvey Collection</i> , Alaska	bowhead, caribou, ermine, fish, fox, geese, ribbon seal, walrus, tree, harpoon, umiaq, hunting caribou, hunting walrus, shooting a bow, whaling
13449	spoon	[-1896]	The Field Museum; Acc. 0; ivory, graphite; L 22.3, W 4.1, D 1.2 cm 	[<i>E. E. Ayer</i> ; Alaska]	bowhead, caribou, walrus, palm tree, tree, harpoon, kayak, sealskin float, umiaq, hunting caribou, hunting walrus, shooting a bow, barbed line,
62370	harpoon socket	-1917	Smithsonian National Museum of the American Indian; ivory, soot, beads; L 19.9, W 3.5, D 1.1 cm 	<i>Fred Harvey Collection</i> , Alaska	bowhead, caribou, ermine, fish, fox, seagull, walrus, umiaq, hunting walrus, seining for fish, whaling, barbed band

32.552	spoon		Newark Museum, Newark, NJ; musk ox horn, black fill; L 22 cm 	(Lipton 1977:53)	caribou, caribou herd, caribou swimming, dog sled, tree, cache, hunting caribou, shooting a bow
13498	net shuttle	-1896	The Field Museum; Acc. 1896.112; ivory, graphite 	<i>E. E. Ayer</i> ; Alaska	brown bear, caribou, caribou skin, dog, dog sled, seal, palm tree, tree, firearm, kayak on rack, spear, hunting bear, hunting caribou, shooting a bow
49590	scraper	-1897	The Field Museum; Acc. 1897.512; ivory, graphite, stone; L 15.4, H 3.7, D 4 cm 	Joseph F. Nathan; <i>E. E. Ayer</i> ; San Francisco	bowhead, caribou, walrus, myth creature, tree, harpoon, kayak, snare, spear, umiaq, hunting caribou, hunting walrus, seining for fish, shooting a bow, whaling
184427	knife		Smithsonian National Museum of the American Indian; bone, graphite; L 37.2, W 6, D 1.4 cm 	Bristol Bay	brown bear, caribou, tree, kayak, sealskin float, spear, umiaq, hunting bear, hunting caribou, seining for fish, shooting a bow

60906	sinker	1905	Smithsonian National Museum of the American Indian; ivory, black ink; L 13.05, W 3.6, D 2.8 cm 	<i>George Heye</i> , Point Barrow	bowhead, caribou, walrus, tree, harpoon, kayak, snare, spear, umiaq, dancing in umiaq, hunting caribou, hunting walrus, whaling
62367	harpoon rest	-1917	Smithsonian National Museum of the American Indian; ivory, black ink, beads; L 39.7, W 4.7, D 3 cm 	<i>Fred Harvey Collection</i> , Alaska	brown bear, beluga, caribou, dog sled, ribbon seal, seal, walrus, tree, harpoon, kayak, kayak on rack, sealskin float, spear, umiaq, hunting bear, hunting walrus, shooting a bow, whaling
62372	sled runner	-1917	Smithsonian National Museum of the American Indian; ivory, black ink; L 37.9, W 5.05, D 2.05 cm 	<i>Fred Harvey Collection</i> , Alaska	brown bear, caribou, dog sled, killer whale, walrus, tree, bird net, harpoon, umiaq, hunting caribou, hunting walrus, shooting a bow, whaling
62373	sled runner	-1917	Smithsonian National Museum of the American Indian; ivory, black ink; L 40.5, W 4.5, D 1.7 cm 	<i>Fred Harvey Collection</i> , Alaska	birds, brown bear, crab, dog sled, walrus, firearm, harpoon, hut, spear, umiaq, hunting bear, hunting caribou, hunting walrus, shooting a bow

62358	harpoon rest	-1917	Smithsonian National Museum of the American Indian; ivory, black ink, baleen, wood; L 23.3, W 11.2, D 2.15 cm 	<i>Fred Harvey Collection</i> , Alaska	bowhead, brown bear, caribou, caribou corral, caribou herd, caribou swimming, walrus, tree, bola, harpoon, kayak, umiaq, spear, hunting bear, hunting birds, hunting caribou, hunting walrus, shooting a bow, whaling
1952.45	visor	-1952	Joslyn Art Museum, Omaha, NE; wood, ivory, paint, feathers, plant and animal fiber; L 16.83 cm 	<i>Mrs. A. F. Jonas</i> , Alaska	brown bear, caribou, dog sled, walrus, tree, spear, umiaq, hunting bear, hunting caribou, hunting walrus, shooting a bow
62354	bola	-1917	Smithsonian National Museum of the American Indian; ivory, black ink, sinew, feathers; L 20.5, H 18.5 cm 	<i>Fred Harvey Collection</i> , Alaska	bowhead, caribou, caribou corral, caribou swimming, walrus, myth creature, tree, harpoon, kayak, spear, umiaq, hunting caribou, hunting walrus, seining for fish, shooting a bow

62355	bola	-1917	Smithsonian National Museum of the American Indian; ivory, black ink, sinew, wood, feathers; L 35.5, H 22 cm 	<i>Fred Harvey Collection</i> , Alaska	bowhead, brown bear, caribou, caribou swimming, walrus, tree, cache, harpoon, spear, umiaq, hunting caribou, hunting walrus, seining for fish, shooting a bow
64-7-1	harpoon rest		Staatliches Museum für Völkerkunde (State Museum for Ethnology), Munich; ivory; L 10.8, H 8.3 cm 	(Staatliches Museum für Völkerkunde 1978: Fig. 90.)	caribou, caribou swimming, brown bear, bowhead, walrus, tree, harpoon, kayak, spear, umiaq, hunting caribou, seining for fish, shooting a bow, whaling
2-14237	engraved sperm whale tooth		Phoebe A. Hearst Museum of Anthropology; Acc. 673; ivory, graphite; L 18.5, W 7.3, D 4.6 cm 	<i>Annie Moller</i>	birds, brown bear, caribou, caribou herd, dog, dog sled, fish, fluke, geese, reindeer sled, walrus, myth creature, cache, campfire, firearm, harpoon, spear, umiaq, yurt, hunting bear, hunting caribou, hunting geese, hunting walrus, shooting a bow, whaling

13659	trinket box	-1896	<p>The Field Museum; Acc. 1896.112; ivory, graphite</p> 	<i>E. E. Ayer</i> ; Alaska	bowhead, brown bear, caribou, caribou herd, walrus, kayak, shooting a bow
62347	netting implement	-1917	<p>Smithsonian National Museum of the American Indian; ivory, graphite; L 17.4, H 4.2, D 2.6 cm</p> 	<i>Fred Harvey Collection</i> , Alaska	birds, brown bear, caribou corral, caribou swimming, fish, killer whale, porcupine, ribbon seal, myth creature, tree, cache, mask, snare, spear, tent, hunting bear, shooting a bow,

APPENDIX J
CALENDAR OF WILDLIFE AND SUBSISTENCE ACTIVITIES
IN NORTHWEST ALASKA

(from Sutton and Steinacher 2012:10-11)

Activities (human & wildlife)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Catch burbot and pike through holes in river ice	■	■	■	■								
Catch trout through holes in river ice	■	■	■	■						■	■	■
Catch king crabs with crab pots and hand lines through the ice	■	■	■	■								
Pick stinkweed for making medicines	■	■	■	■	■	■	■	■	■	■	■	■
Hunt muskox (longest season Aug 1 - Mar 15)	■	■	■					■	■	■	■	■
Hunt seals from edge of sea ice or in holes and, by April, in leads	■	■	■	■					■	■		
Hunt caribou	■	■	■							■	■	■
Trap furbearers like fox, wolf, wolverine, mink, beaver, and otter	■	■	■	■								■
Hunt ptarmigan	■	■	■	■				■	■	■	■	■
Hunt walrus riding on floating ice offshore			■	■	■							
Jig for tomcod through holes in sea ice			■	■							■	■
Golden eagles arrive and occupy nesting locations			■	■								
Large flocks of ptarmigan gather in willows, still mostly white			■	■								
Common ravens begin nesting			■	■	■							
Caribou begin spring migration north to calving grounds				■								
Gulls begin arriving (early April)				■								
Hunt beluga whales in open leads and from ice edge (late April)				■	■							
Hunt early arriving sea ducks and seabirds (late April)				■								
Trap ground squirrels for fur used as fancy parka trim				■					■			
Herd reindeer closer to town for fawning				■								
Brown bears (grizzlies) emerge from hibernation				■								
Baby seals are born				■								
Redpolls and northern shrike begin nesting				■	■							
Reindeer fawning draws predators				■	■							
Muskox calving				■	■	■						
Gather tubers from Eskimo potato plant					■	■			■	■		
Cut seal meat and hang to dry					■							
Hunt bowhead whale (residents of Island villages and Wales)					■							
Hunt muskrat and beaver					■							
Hunt ducks, geese, and cranes					■			■	■			
Ptarmigan nesting					■	■						
Sandhill cranes and geese pass overhead on northward migration, some begin to stay by mid-May.					■							
Waterfowl, shorebirds, and numerous migrating birds start arriving by mid-May as snow cover diminishes and ponds thaw.					■							
Wilson's snipe begins calling and aerial displays					■							

Activities (human & wildlife)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Short-eared owls arrive mid-May and nest in lowland tundra meadows if voles and lemmings are abundant					■							
Pregnant cow moose chase away last year's calves before calving					■							
Gather newly opened willow leaves for eating					■							
Fish for Dolly Varden with rod and reel					■	■		■	■			
Ponds, lakes, and Safety Sound mostly ice-free by late May					■							
Moose calving coincides with leaf-out					■	■						
Most birds are nest building and laying eggs by late May					■	■						
Catch herring at sea with gill net or seine net					■	■						
Catch capelin by dipping net or trash can or hand-picking off sand					■	■						
Gather beach greens and fireweed shoots						■						
Gather seabird and waterfowl eggs						■						
Birds hatching						■	■					
Chum and Chinook salmon begin spawning							■					
Net, cut, dry, smoke, can, and freeze salmon							■	■	■	■		
Gather sourdock, also called wild spinach							■					
Pick and freeze salmonberries							■	■				
Chum and pink salmon spawning until mid-August							■	■				
Fish for coho salmon								■	■	■		
Coho salmon spawning								■	■	■	■	
Pick and freeze blueberries and crowberries								■	■			
Whimbrels and shorebirds begin flocking before migrating								■	■			
Waterfowl begin pre-migration staging									■			
Pick and freeze cranberries									■			
Fish for grayling and whitefish									■	■		
Hunt moose									■			
Harvest reindeer									■			
Sandhill cranes and Canada geese migrating south									■			
Moose are in rut									■	■		
Seine net for whitefish in rivers									■	■		
Snare snowshoe and Alaska hares										■		
Hunt seals in open water										■	■	
Caribou, arrival of migrating animals from north										■		
Short-eared owl, fall migration departure										■		
Dip rainbow smelt from thin lagoon ice w/chicken wire dippers										■		
Jig for tomcod through lagoon and harbor ice										■	■	■
Snowy owl, arrival in some years											■	■
Hunt polar bears in northern regions												■

APPENDIX K
MUSEUM EXHIBITIONS WITH CHANGING REPRESENTATIONS
OF PICTORIAL ENGRAVED DRILL BOWS

1969 *The Eskimo*

The Museum of Fine Arts, Houston, TX

Curated by Mary Hancock Buxton

An art exhibition that centered on masks from Alaska and Canada but also featured a number of prints and carvings. Included contributions from both private and public collections including the Smithsonian NMNH who lent two ivory drill bows, one of the first instances of engraved drill bows appearing in a major exhibit.

1969 *Chefs-d'oeuvre des Arts Indiens et Esquimaux du Canada; Masterpieces of Indian and Eskimo Art from Canada*

Museum of Man, Paris

National Gallery of Canada, Ottawa

A traveling exhibition of 186 indigenous Canadian and Alaskan objects from Canadian collections exhibited in Paris for the first time. The exhibit focused on formal style analysis and discussion of object symbolism. Included several ancient ivories and one engraved drill bow from the Canadian Museum of Civilization.

1970 *Inuit/Eskimo: People of the North American Arctic*

Museum of Mankind (now incorporated into the British Museum), London

A long-term exhibition focused on Arctic materials from communities living between the Bering Strait and East Greenland. The exhibit featured seventeen engraved ivory drill bows, the largest number of bows ever exhibited, along with a variety of engraved arrow straighteners, pipes and wrist guards. This exhibit lasted until the 1980s until it was updated with contemporary interpretation and reinstalled in the new North America gallery.

1973 *The Far North: 2000 Years of American Eskimo and Indian Art*

National Gallery of Art, Washington, D.C.

Anchorage Museum at Rasmuson Center

Portland Art Museum

Amon Carter Museum of Western Art, Fort Worth, TX

Curated by Henry Collins, Frederica de Laguna, Edmund Carpenter and Peter Stone

The first National Gallery exhibition to present Native American material culture as examples of artistic achievement. The exhibit portrayed five Alaska Native cultural groups with a heavy emphasis on Eskimo and Tlingit materials. Henry Collins discussed the ancient and ethnographic ivories, which included eight engraved drill bows with two bows from European collections shown in the United States for the first time.

1975-76 *19th Century Alaskan Eskimo Art*

Field Museum of Natural History

Curated by James W. VanStone

A seven-month exhibit in Hall 27 of the Field Museum. Objects displayed as fine art in dramatically lit glass cases with fabricated snow. Large panels hung over cases with blown up images of graphic art, portraits of Alaska Natives, and photographs of hunting and whaling. Large collection of engraved ivory drill bows, pipes and tusks put on display in addition to masks, hunting hats and various implements.

1977 *Survival: Life and Art of the Alaskan Eskimo*

Newark and New York: The Newark Museum and American Federation of Arts.
Curated by Barbara Lipton
The exhibition presented material culture and art from prehistoric to modern time with a focus on carvings of ivory, wood and soapstone. The Alaska State Museum lent two engraved drill bows for the exhibit. Noteworthy for the inclusion of contemporary Native voice via a short interview with sculptor Lawrence Ahvakana.

1977 *The Native American Heritage: A Survey of North American Indian Art*
The Art Institute of Chicago
Curated by Evan Mauer

A comprehensive exhibition of Native American art with an assemblage of objects from private and public collections. Art historical presentation of objects and photographs but attempted contextualization through introductory sections on cultural practices and object use. The exhibit featured several ancient and historical ivories along with one engraved drill bow

1980 *Arctic Art: Eskimo Ivory*
Museum of the American Indian (now the Smithsonian NMAI), New York, NY
Curated by James Smith

An exhibit of George Heye's diverse collection of ivory tools and tourist items from Alaska, Canada and Greenland. The majority of ivory carvings discussed from an anthropological perspective with the distinction of engraved ivory as objects of art historical study. The exhibit included two engraved drill bows along with several ivory pipes and pictorial engraved tusks.

1982 *Inua: Spirit World of the Bering Sea Eskimo*
Smithsonian National Museum of Natural History, Washington, D.C.
Curated by William Fitzhugh and Susan Kaplan

An exhibit focused on the Smithsonian's extensive ethnographic collections made by Edward Nelson from 1877-1881 among Bering Sea communities. The traveling exhibit included over ten ivory drill bows while the exhibit catalog featured enlarged sections of the bows to illustrate a wide range of topics with the addition of a specific essay on drill bow engravings. The exhibit benefited from the guidance of Yup'ik advisors and stressed cultural continuity through the inclusion of contemporary Alaskan Native art.

1982 *Setting It Free: An Exhibition of Modern Alaskan Eskimo Ivory Carving*
University of Alaska Museum of the North, Fairbanks
Curated by Dinah Larsen

The exhibit used collections from three Alaska museums to trace the historical development of Alaskan Native ivory carving. Five pictorial engraved drill bows included among a wide range of prehistoric to modern carvings. The exhibit also compared traditional and contemporary carving processes with four photos essays of ivory carvers including James Omiak from Little Diomed.

1983 *Arctic Life: Challenge to Survive*
Carnegie Museum of Natural History, Pittsburgh, PA
Curated by Martina Jacobs and James Richardson

The *Arctic Life* catalog accompanies the permanent *Polar World* exhibit and examines the impact of the environment on cultural transformation and material expressions. The catalog features one engraved drill bow while the physical exhibit includes two additional drill bows among the displays of Inuit art and life.

- 1986 *Raven's Journey: The World of Alaska's Native People*
The University Museum, University of Pennsylvania, Philadelphia
Curated by Susan Kaplan and Kristin Barsness
An exhibit to celebrate the museum's centennial with a presentation of ethnographic materials and photographs from four Alaskan Native groups acquired during the nineteenth and early twentieth century. Within the Eskimo section, oral stories acquired by field collectors framed anthropological discussion of the ceremonial objects, clothing and tools, including one engraved drill bow.
- 1988 *Crossroads of Continents: Cultures of Siberia and Alaska*
Smithsonian National Museum of Natural History, Washington, D.C.
Curated by William Fitzhugh and Aron Crowell in collaboration with curators in Russia and Canada
The large traveling exhibit brought together Russian and American collections in an exploration of North Pacific ethnography and archaeology. The exhibit featured three engraved drill bows including two from the Kunstkamera in St. Petersburg. Scholars highlighted connections between past and present communities with a closing discussion on twenty contemporary Alaskan Native artists.
- 1988 *Menschen im Eis: Eskimo früher und heute: Begleitschrift zur Ausstellung im Niederrheinischen Museum der Stadt Duisberg [People of the Ice: Eskimo of the past and today: An introduction to the exhibit at the Niederrheinischen Museum der Stadt Duisberg]*
Das Kultur- und Stadthistorische Museum, Duisburg
Curated by Gernot Tromnau
A history exhibit based on European collections of Arctic objects acquired mainly during the late nineteenth century. The Museum für Völkerkunde contributed one engraved drill bow along with two engraved ivory pipes. The exhibit attempted to convey continuity through a short section about contemporary Arctic life in West Greenland.
- 2003 *Eskimo Drawings*
Anchorage Museum at Rasmuson Center
Curated by Suzi Jones and Walter Van Horn
The exhibit featured mid-twentieth century drawings by Alaskan Eskimo artists and included one drill bow in addition to several other pictorial engraved ivories as forms of transitional media. Discussion of works combined art historical and anthropological points of view with a focus on the links between oral history, text and the visual arts.
- 2004 *Oltre Bering: le colonie russe del Nord Pacifico, 1741-1867; Jenseits von Bering: die Russischen Kolonien des Nordpazifiks, 1741-1867; Beyond Bering: the Russian colonies in the North Pacific, 1741-1867*
Galleria Gottardo, Lugano, Switzerland
Staatliches Museum für Völkerkunde, Munich
Curated by Jean-Loup Rousselot and Veronika Grahammer
An exhibit highlighting ethnographic collections from the Ajaloomuseum in Tallinn, Estonia acquired in Eastern Siberia and Russian America; primarily historical discussion with attention on exploration and transformation in the Arctic. Includes several Siberian ivory carvings in addition to four engraved drills collected by Ferdinand Wrangell in the 1830s.

2006 *Arctic Spirit: Inuit Art from the Albrecht Collection at the Heard Museum*
Heard Museum, Phoenix, AZ
Curated by Ingo Hessel

A traveling exhibition organized by the Heard Museum featuring the Albrecht's private collection of prints, carvings and textiles from Canada, Greenland and Alaska. The exhibit's primary focus is contemporary art with a substantial amount of biographical information on the represented artists. Includes several ancient ivories in addition to an ivory drill bow presumed to be from the nineteenth century but engraved in a manner for the twentieth century tourist trade.

2010 *Infinity of Nations: Art and History in the Collections of the National Museum of the American Indian*
Smithsonian National Museum of the American Indian George Gustave Heye Center,
New York, NY
Curated by Cécile Ganteaume

A permanent exhibition with a website component re-presenting 700 objects from North, Central and South America as works of art situated in a historical context. The exhibit focuses on nineteenth century material but includes several contemporary art pieces and strives for multi-vocality through the use of indigenous terminology and the inclusion of Native authored essays in the exhibition catalogue. The exhibit features a number of pictorial engraved ivories including one drill bow.

2010 *Living Our Cultures, Sharing Our Heritage: The First Peoples of Alaska*
Smithsonian National Museum of Natural History, Washington, D.C.
Anchorage Museum at Rasmuson Center
Curated by Aron Crowell

A collaborative exhibit in which museum staff and community members chose 600 Alaska Native hunting, ceremonial, and family-life items from the National Museum of Natural History and National Museum of the American to put on display until 2017 in the new Smithsonian Arctic Studies Center in the Anchorage Museum. An exhibition website offers complementary archival and educational materials with expanded discussion on each object. The exhibit includes one pictorial engraved drill bow and five additional engraved ivory objects accompanied by indigenous terminology and interpretation.

*For purposes of this review, "exhibition" denotes a curated display of collections accompanied by a catalogue.