Document généré le 20 avr. 2024 00:02

Études Inuit Studies

The Archaeology and Ethnohistory of Walrus Ritual around Bering Strait
L'archéologie et l'ethnohistoire du rituel des morses autour du détroit de Béring

Erica Hill

Volume 41, numéro 1-2, 2017

Bestiaire inuit
Inuit Bestiary

URI : https://id.erudit.org/iderudit/1061434ar
DOI : https://doi.org/10.7202/1061434ar

Aller au sommaire du numéro

Éditeur(s)

Centre interuniversitaire d'études et de recherches autochtones (CIÉRA)

ISSN

0701-1008 (imprimé)
1708-5268 (numérique)

Découvrir la revue

Citer cet article

Hill, E. (2017). The Archaeology and Ethnohistory of Walrus Ritual around Bering Strait. *Études Inuit Studies*, *41*(1-2), 73–99. https://doi.org/10.7202/1061434ar

Résumé de l'article

Les sources ethnohistoriques du XIX^{e} siècle décrivent les rituels et les croyances liés à l'exploitation du morse (*Odobenus rosmarus*) dans les îles de la mer de Béring et de la côte de la Tchoukotka. Ces rites à petite échelle pratiqués par les habitants du l'île Saint-Laurent, les Yupiget de Sibérie et les Tchouktches avaient pour but de remercier les morses et d'assurer le succès de la chasse à l'avenir. Les rituels menés par les capitaines de bateaux de morses ont également facilité l'intégration des équipes de chasseurs de morses et de leurs familles. Les preuves archéologiques de l'antiquité du rituel du morse sont fournies par des concentrations de crânes de morse dans des structures et par le dépôt d'os de morse dans des cimetières. La centralité du morse pour la subsistance, la culture matérielle et la vie rituelle des peuples côtiers mérite une plus grande attention de la part des érudits dans les reconstructions archéologiques et historiques des « passés multispécifiques » des Yupiget et des Tchouktches.

Tous droits réservés © La revue Études Inuit Studies, 2019

Ce document est protégé par la loi sur le droit d'auteur. L'utilisation des services d'Érudit (y compris la reproduction) est assujettie à sa politique d'utilisation que vous pouvez consulter en ligne.
https://apropos.erudit.org/fr/usagers/politique-dutilisation/

Cet article est diffusé et préservé par Érudit.

Érudit est un consortium interuniversitaire sans but lucratif composé de l'Université de Montréal, l'Université Laval et l'Université du Québec à Montréal. Il a pour mission la promotion et la valorisation de la recherche.
https://www.erudit.org/fr/

The Archaeology and Ethnohistory of Walrus Ritual around Bering Strait

Erica Hill[i]

ABSTRACT

Nineteenth-century ethnohistoric sources describe rituals and beliefs related to the exploitation of walrus (*Odobenus rosmarus*) on the islands of the Bering Sea and the coast of Chukotka. These small-scale rites practiced by St. Lawrence Islanders, Siberian Yupiget, and Chukchi were intended to thank walrus and ensure future hunting success. Rituals conducted by walrus boat captains also facilitated integration of walrus hunting crews and their families. Archaeological evidence for the antiquity of walrus-related ritual is provided by concentrations of walrus skulls in structures and deposition of walrus bones in cemeteries. The centrality of walrus to subsistence, material culture, and ritual life of coastal peoples deserves more scholarly attention in both archaeological and historical reconstructions of Yupik and Chukchi multispecies pasts.

KEYWORDS

Alaska, Chukotka, human–animal relations, ritual, walrus, zooarchaeology

RÉSUMÉ

L'archéologie et l'ethnohistoire du rituel des morses autour du détroit de Béring

Les sources ethnohistoriques du XIX^e siècle décrivent les rituels et les croyances liés à l'exploitation du morse (*Odobenus rosmarus*) dans les îles de la mer de Béring et de la côte de la Tchoukotka. Ces rites à petite échelle pratiqués par les habitants du l'île Saint-Laurent, les Yupiget de Sibérie et les Tchouktches avaient pour but de remercier les morses et d'assurer le succès de la chasse à l'avenir. Les rituels menés par les capitaines de bateaux de morses ont également facilité l'intégration des équipes de chasseurs de morses et de leurs familles. Les preuves archéologiques de l'antiquité du rituel du morse sont fournies par des concentrations de crânes de morse dans des structures et par le dépôt d'os de morse dans des cimetières. La centralité du morse pour la subsistance, la culture matérielle et la vie rituelle des peuples côtiers mérite une plus grande attention de la part des érudits dans les reconstructions archéologiques et historiques des « passés multispécifiques » des Yupiget et des Tchouktches.

MOTS-CLÉS

Alaska, Tchoukotka, relations homme-animal, rituel, morse, zooarchéologie

******

---

[i] Department of Social Sciences, University of Alaska Southeast, Juneau, Alaska, United States. edhill@alaska.edu

ÉTUDES INUIT STUDIES 41 (1–2): 73–99

Arguably, no single animal has been as crucial to marine adaptations around Bering Strait as the walrus. Walrus meat, hide, bones, and tusks have been in use along the coasts of Alaska and Chukotka for over two millennia. Walrus meat fed both humans and dogs; female walrus hides provided covers for kayaks and *umiat* (Anichtchenko 2016; Bogojavlensky 1969; Braund 1988); calf skins provided thongs and lashings (Menovščikov 1968). Walrus bone has greater strength and durability than seal bone, and is a more versatile material than whale bone, making it useful for shovels, mattocks, sleds and as a building material (Collins 1937). Objects of walrus ivory are too numerous to list, but are ubiquitous at archaeological sites on the Bering and Chukchi Sea coasts and likely one of the most valuable raw materials in the material repertoire of inhabitants (Fitzhugh, Hollowell, and Crowell 2009).

The significance of walrus to the development of social complexity in the Bering Sea region has been posited by Rudenko following coastal survey work and limited excavation in Chukotka. Noting the role of sea mammals more generally, Rudenko ([1947] 1961, 178), singled out walrus as a key factor in the development of Bering Sea societies, a perspective supported by my own research (e.g., Hill 2011). Paradoxically, then, walrus hunting has generally received less attention than whaling (for exceptions, see Bogojavlensky 1969; Ellanna 1988; Gadamus and Raymond-Yakoubian 2015; Krupnik 1993; Krupnik and Ray 2007) and its associated "cults" (e.g., Lantis 1938, 1940).

This article explores the ethnohistoric and archaeological evidence for walrus-centred ritual along the Bering and Chukchi Sea coasts. The patterns described here highlight regional differences in marine adaptations around Bering Strait that date back at least two millennia. Rituals focused on walrus played greater roles in the ceremonial lives of people in Chukotka and St. Lawrence Island than in Northwest Alaska, a pattern that likely accounts for the dearth of discussion in the English-language literature.

Walrus in the Bering and Chukchi Seas

Walrus are the only extant species in the Odobenidae family, which includes two subspecies: the Pacific walrus, (*Odobenus rosmarus divergens* [Illiger, 1815]), and the smaller Atlantic walrus (*O. rosmarus rosmarus*), which inhabits the arctic waters of Canada and Greenland east to Novaya Zemlaya (Born, Gjertz, and Reeves 1995). A third population inhabiting the Laptev Sea and parts of the adjacent Kara and East Siberian seas has been designated *O. r. laptevi* by some taxonomists. However, osteometric and genetic data support classifying the Laptev walrus as the westernmost population of Pacific walrus (Lindqvist et al. 2009).

Early historic, and presumed prehistoric, Pacific walrus distribution is known from sightings of individuals and herds by eighteenth-century explorers, such as Captain Cook, who observed "sea-horses" "upon the ice in herds of many hundreds, huddling like swine" (Cook 1784, 42). Georg Wilhelm Steller, a naturalist on Vitus Bering's voyage of 1741–42, observed that walrus were frequently sighted north of Karaga Island, off the coast of Kamchatka. Steller also provided one of the most southerly observations of walrus at Lopatka, at the tip of Kamchatka ([1774] 2002, 80). Elsewhere, he described walrus as “fond of [these] regions” in reference to the mouths of the Lena and Kolyma Rivers, and around Cape Chukotsky (Steller [1751] 1899). Fay (1957) suggests that the Pacific walrus once ranged as far west as the New Siberian Islands, a view consistent with the genetic evidence relating the Laptev population to Pacific walrus. Early reports also document walrus presence south to the Pribilofs and Amak Island in the Aleutians (Fay 1957; Steller [1774] 2002, 80).

Twenty-first-century distribution of walrus in the North Pacific is significantly less extensive than it was during the 1800s due to the catastrophic effects of the ivory trade and overexploitation by the pelagic whaling industry (Bockstoce and Botkin 1982), which had disastrous consequences for a species able to produce only one calf every two to three years (Fay 1985). The Kamchatka herds observed by Steller were extirpated by 1900. By 1930, herds were no longer seen south of 60° N latitude (Fay 1957). While herds once ranged as far east as Banks Island in the Beaufort Sea, current data indicate distribution only to Utqiaġvik (Barrow) and no farther west than Cape Shelagsky (MacCracken et al. 2017) (Figure 1).

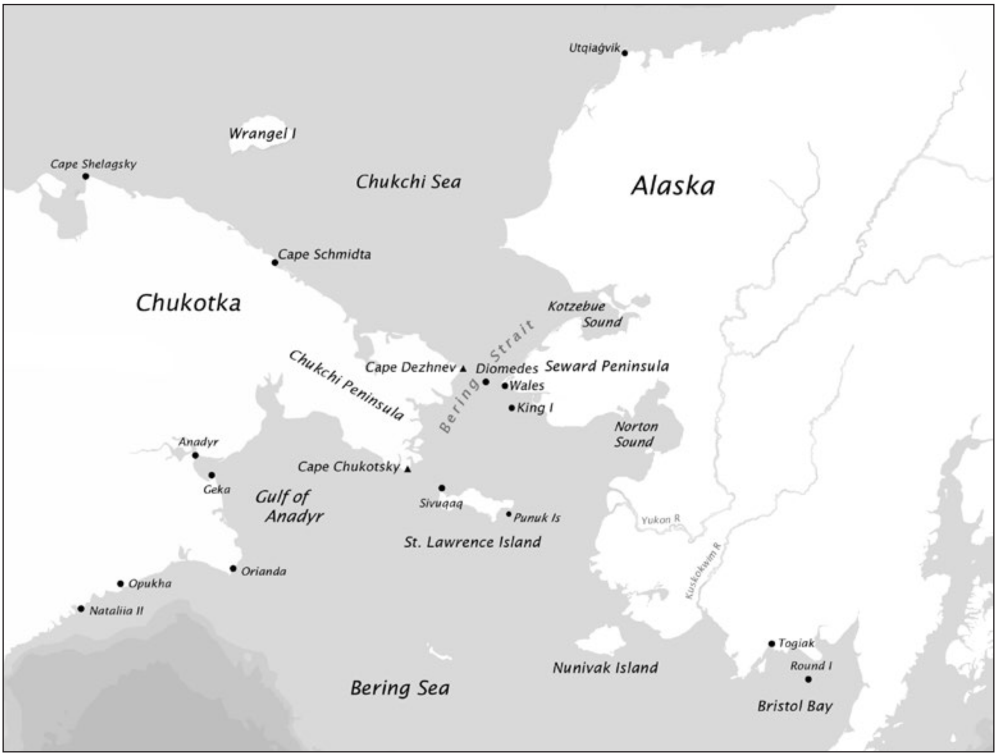
Utqiaġvik
Wrangel I
Cape Shelagsky
Chukchi Sea
Alaska
Cape Schmidta
Chukotka
Kotzebue Sound
Bering Strait
Chukchi Peninsula
Cape Dezhnev
Diomedes
Seward Peninsula
Wales
King I
Norton Sound
Anadyr
Cape Chukotsky
Geka
Gulf of Anadyr
Sivuqaq
Punuk Is
Yukon R
St. Lawrence Island
Kuskokwim R
Orianda
Opukha
Nataliia II
Togiak
Round I
Nunivak Island
Bering Sea
Bristol Bay

Figure 1. The coasts of Chukotka and western Alaska.

The centrality of walrus to Indigenous lifeways is reflected in prehistoric settlement patterns, faunal remains, ethnohistoric and oral narratives, and recent ethnographic research. For people along the Bering and Chukchi Sea coasts, walrus were one component of a maritime subsistence adaptation that also included whales, seals, and seabirds (Collins 1937, 248–49; Dinesman et al. 1999; Gusev, Zagoroulko, and Porotov 1999). Proportions of these animals in the diet depended upon daily hunting success, seasonal availability, and annual migratory patterns related to flow of the nutrient-rich Anadyr Current, availability of benthic invertebrates and bivalves, locations of polynyas and haul-outs, and wind and sea ice conditions (Huntington et al. 2013; Huntington, Quakenbush, and Nelson 2016; Kawerak 2013; Krupnik and Ray 2007; MacCracken 2012; Ray 2009).

Sites with evidence for long-term Indigenous occupation, such as Sivuqaq (Gambell), St. Lawrence Island, Qiwaaq (Kivak), and Wales, Alaska (Figure 1), are located at points where the Anadyr Current bottlenecks, creating conditions conducive to walrus hunting. Settlements along the inner margins of Kotzebue and Norton Sounds, meanwhile, tend to yield walrus ivory—a common trade item—but little to no evidence for dietary dependence on walrus (Hill 2011). In general, walrus were more critical to subsistence in the western Bering and Chukchi Seas than along the coast of Alaska. Notable exceptions to this pattern include sites in Bristol Bay, where Qayassiq, on Round Island, has yielded evidence for six thousand years of walrus hunting (Schaaf 2017).

Despite the significance of walrus as a "mainstay of the diet" (Jolles 2002, 283; see also Hughes 1960; Moore 1923) and source of raw materials, observers have remarked on how infrequently walrus are represented in art or mentioned in ritual contexts (e.g., Lantis 1947, 47; Murdoch 1892, 400). More charismatic prey such as whales (e.g., Lantis 1938, 1947) received elaboration in material culture and ritual, while seals were the focus of a complex set of ritual injunctions. Murdoch (1892, 434) contrasted attitudes toward seal and walrus remains at Utqiaġvik (Barrow) writing of the challenges he had in acquiring seal skulls, but remarked that "we had comparatively little difficulty in obtaining the skulls of the walrus." Similarly, Hughes (1984, 274) wrote that whale ceremonialism on St. Lawrence Island in the 1950s had no walrus parallel. Nevertheless, walrus were central to the diet and identity of the Islanders (Hughes 1960; Jolles 2002) and their neighbours in Chukotka (Krupnik 1993, 70), and a complex focal vocabulary evolved to describe them (Krupnik and Ray 2007; Menovščikov 1968).

Walrus are highly visible in material culture. Archaeological and ethnographic collections convey the ubiquity of walrus bone, teeth, and tusks in the daily life of coastal inhabitants (Fitzhugh, Hollowell, and Crowell 2009). The size, strength, and durability of walrus bone made it a more useful raw material than seal bone, and accounts for its extensive use for sled components (tusks and baculi), as shovels (scapulae), and as structural elements in architecture (ribs, tusks, and baculi) (Collins 1937; Hill 2011; Rainey 1941).

Walrus teeth (as opposed to tusks) were commonly used as bolas (Ford 1959; Stanford 1976) for taking down birds and for personal ornaments. Ivory, however, was the most intensively used raw material provided by walrus. Among its many uses was as decoration for hunting visors (Black 1991), as handles for buckets and *uluat*, and in construction of harpoon heads, foreshafts, sockets, and counterweights (see examples in Fitzhugh, Hollowell, and Crowell 2009; Crowell et al. 2010). The symbolic significance of walrus was manifested in tusk motifs on parkas (Curtis 1930, facing 128; Kaplan and Barsness 1986, 135; Murdoch 1892, 113–15) and in bilateral labrets, which materialized affinities between humans and walrus. These traditions were part of a more extensive metaphorical system that linked animals and humans through clothing, ornaments, and ritual practice (Chaussonnet and Driscoll [1988] 1994, 111; Crowell 2009; Driscoll 1987, 180–82). Ethnohistoric accounts, which occasionally describe walrus ritual, give some sense of the complex belief system that underpinned human–walrus relations around Bering Strait.

Accounts of walrus ritual

The ethnohistoric accounts discussed below are primarily derived from the work of non-Indigenous observers and anthropologists, and date from the mid-1800s to the early 1900s. One Yupik scholar, Paul Silook of St. Lawrence Island, is the sole exception (Jolles 1995; Hollowell 2009). The picture of walrus rites given by these accounts is consistently one in which walrus heads or skulls served as witnesses to ceremonies of thanks and propitiation or acted in divinatory roles. The syncretic cultural traditions of Alaska, Chukotka, and the islands of the Bering Sea are evident in the shared elements of many rites, which tend to feature boat captains as ritual officiants.

Chukotka

Both Yupiget ("Asiatic Eskimo") and "Maritime Chukchi" living along the coasts of Chukotka relied on sea mammal hunting and conducted walrus-focused rites (Figure 2). These rites were apparently highly variable from village to village, and even among celebrants in a single village. Rites were conducted at the beginning of walrus hunting, after the first walrus had been taken; mid-summer, when hunters switched from ice-based cooperative to near-shore hunting; and late fall or early winter, in a general feast of thanksgiving.

At the turn of the century, ethnographer Waldemar Bogoras (1907) observed that both Chukchi and Yupiget gave "a drink and a bed" to the first walrus killed in the spring. Water was poured on the animal's head, while a willow twig, symbolizing a bed, was placed beneath the body (Bogoras 1907, 378). In the Yupik village of Sighineq [Wute'en] the first walrus of the year was given to the leader of the "front-house family," who divided up the meat and took the head and skin for himself (387).

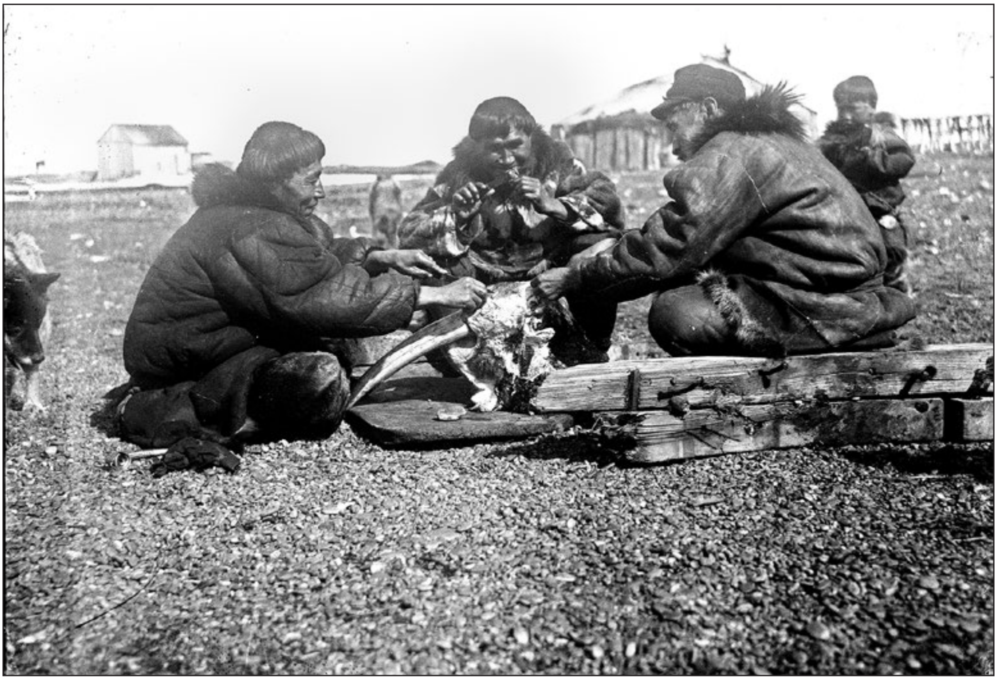

Figure 2. Chukchi "Ceremonial of the Heads." Originally published in *The Chukchee—Religion* (Bogoras 1907, plate XXXII, fig. 4).
Courtesy Division of Anthropology, American Museum of Natural History.

In the mid-1930s, I.K. Voblov (1959) observed a more complex rite among Yupiget of Chaplino and Sireniki: the "ceremony of heads,"[1] or *nasquneghqeleq* in current orthography, which occurred in June and initiated the near-shore hunting of walrus when men could no longer hunt on the ice. In Voblov's account (1959, 73–76), the ritual involved the placement of up to one hundred walrus heads from the spring hunt in a semi-circle on the floor of the house and the erection of a pole that divided the ritual space. A lamp burning on both ends was placed near the pole. The celebrant, a boat captain, was assisted by his wife as he invoked and fed the spirits and made gestures to banish illness and bad luck. The rites took place both inside and outside, with the celebrant and his wife throwing several types of food offerings into both the fire and sea. Water from a special dipper was poured at the house entrance. Participants danced, chanted, drummed, and sang, sometimes "without words" (74). A shaman, perhaps speaking on behalf of the spirits, entered the house and sang for a short time. Before departing, he suggested ways that the celebrant might avoid misfortune. Following distribution of walrus meat to Elders, the boat captain sacrificed a dog. At the end of the ritual, the captain distributed walrus meat to members of his crew, retaining the tusks for himself. Finally, the ceremonial pole was removed from the house and erected behind the structure (73–76).

---

[1] Voblov's article was translated by Charles Hughes, who renders "*naskunikhkilik*" as "ceremony of the tusks." The correct translation is "ceremony of heads," from Yupik *nasquq* (head). I am indebted to Igor Krupnik for this correction.

In 1977, elderly Yupiget from New Chaplino, Sireniki, and Provideniya provided additional detail on *nasquneghqeleq* to Igor Krupnik and Liudmila Ainana (2000, 268–72; Krupnik and Chelenov 2013, 166–67, fig. 6.6). The ritual was also known as "heads in a circle," and included the heads of small and bearded seals, as well as walrus. The importance of keeping dogs away from the heads was explained by Vasily Nanok (Krupnik and Ainana 2000, 269), who cautioned that the walrus head would lose its power if a dog sniffed or licked it. Krupnik and Ainana's informants reported that each crew usually had about fifteen heads, with forty being the largest number (2000, 270, 271).

The "ceremonial of the heads" described by Bogoras (1907, 381) is the Chukchi version of the Yupiget *nasquneghqeleq* reported by Voblov (1959) and Krupnik and colleagues (Krupnik and Ainana 2000, 268–72; Krupnik and Chelenov 2013, 166–67). Bogoras describes the caching of walrus heads from the spring hunt for this purpose. Additionally, his account includes the reenactment of a successful hunt by hauling in a walrus, symbolized by the largest head. Following dancing and drumming, the meat of the walrus heads was consumed, the remainder divided among crew members. Women and children symbolically shook off their bad luck over the lamp, after which the remaining bones were thrown into the sea (Bogoras 1907, 405–06).

The Chukchi also conducted a thanksgiving ceremony after the walrus migrated south. The heads of one or two walrus, plus one or two of seal, reindeer, or hare were placed in the centre of the house or hung beneath the vent-hole. The heads—each representative of its species—witnessed the offerings to the spirits, after which attendees feasted on the meat of the walrus head (Bogoras 1907, 389–90).

In most of these accounts, no mention is made of the final disposition of the head itself. However, Bogoras does mention that at the village of Kihi'ni (Yupik Kihi), the head of the first walrus of the fall migration was left on a ledge on a "certain sea-cliff" (1907, 387). This description is similar to that of a Yupik Elder, Angqanga (Ankana), who described a coastal cliff above the village of Sireniki where walrus heads, tusks intact, were lined up (Krupnik and Ainana 2000, 272).

Archaeologist Nikolai Dikov observed several walrus skull features during his surveys of the Chukotka coast. Like Bogoras, he associated the depositional practices with both Chukchi and Siberian Yupiget. According to Dikov ([1977] 2003, 176), the head of the first walrus killed each year was placed near the haul-out and was then consulted the next year regarding future hunting at the site. He interpreted the practice as a way of regulating the harvest. While Bogoras does not identify a "certain sea-cliff" at Kihi with a haul-out, the site is located at the eastern tip of Arakamchechen Island at Cape Kygynin, near what was once a large haul-out (Zdor, Zdor, and Ainana 2010, 11). An anecdotal account by a Joseph Bernard, a trader and schooner captain stranded at Inchoun in the winter of 1921, also links walrus heads, divination, and haul-outs.

Bernard (1923) recorded a story that he heard about five shamans who healed a breach between the village inhabitants and the local walrus herds. Around 1911, the shamans questioned the head of a freshly killed walrus to identify a new village leader and to determine how to lure the walruses back to a haul-out they had abandoned. The newly appointed leader, Tenastze, imposed taboos on the village to prevent them from offending the walrus by wasteful killing. As a result, the walrus herds returned to the area in abundance.

The accounts of Voblov (1959), Bernard (1923), and the Yupik informants of Krupnik and Ainana (2000) illustrate the intersubjective nature of relations between Chukchi, Yupiget, and walrus. Vestiges of these nineteenth-century beliefs are still evident in descendant populations. For example, some twenty-first-century rules for butchery display concern and respect for the animal after death. One common rule was to remove the eyes of the walrus before the head so the animal does not see its own butchering. One informant, V. Eyneucheyvun from Lavrentiya, described the former practice of giving the first walrus of the season a drink of water, which was poured over its snout. Others described throwing small bits of meat or entrails into the water when butchery began as a form of thanks to the "master" of the place (Zdor, Zdor, and Ainana 2010, 36–37). Yupik concern with prey sensibilities also motivated the cleanup of bones and carcasses from the beach, so that the animals wouldn't see the remains of their relatives (Krupnik and Vakhtin 1997, 242). Inupiaq informants from Little Diomede Island, Alaska, described similar practices, including removal of the eyes (Raymond-Yakoubian et al. 2015, 37). In addition, they identified several features of walrus behaviour that foretold a human death, which is reminiscent of the divinatory use of the head in Chukotka.

Other hunting practices display concern for spirits in general, rather than the prey animal in particular; such rites may be related to nineteenth-century concerns with the "Mother of Walruses" (Bogoras 1907, 315–16) and other animal masters. For example, ethnographic research among walrus hunters in Chukotka in 2009–2010 documented practices in which bits of tea, meat, or matches were thrown into the water to "feed" the spirits of the sea. These rites were generally conducted by individual hunters and occurred before walrus hunting or the first boat launch, as gifts to ensure good fortune and safety in hunting. They were dedicated not to walrus, but to "spirits" more generally (Zdor, Zdor, and Ainana 2010). Thanking and feeding the spirits are part of a broader set of ritual practices conducted when travelling, especially when visiting old villages or cemeteries and involve throwing bits of food, kindling fires, and pouring liquor into the flames (Krupnik and Vakhtin 1997).

St. Lawrence Island

Given the cultural, familial, and linguistic links between St. Lawrence Islanders and Yupiget of Chukotka, similarities in ritual practice are unsurprising, including the use of lamps, the attendance of walrus heads at ceremonies, and the use of willow. As in Chukotka, rituals involving walrus tended to take place indoors and were conducted by boat captains with their crews in attendance. The private nature of these practices may have made them relatively invisible to visitors to the island, including archaeologist Henry Collins. In his book on the archaeology of Sivuqaq, Collins (1937, 248) observed, "just as today, the walrus, in spite of its economic importance, was accorded scant respect" in the past, relative to seal.

Contradicting Collins's observation are accounts of ritual practices by Paul Silook (1892–1946), a Yupik scholar born on St. Lawrence who produced a series of letters and notebooks that include descriptions of the treatment of walrus. According to Silook, walrus, unlike seal, were not provided with a drink of water; nor were their bones returned to the sea. Instead, the head of the walrus was taken into the house and a piece of willow wood was placed in its mouth as a gesture of hospitality: "they feed it like they are being hospitable to a stranger." Hunters were enjoined to be especially careful with the bladder (Silook 1917a, 7–8), a concern that links St. Lawrence practices with the Central Yup'ik Bladder Festival of Southwest Alaska.

Honouring the first walrus of the season, Silook reported, required that the head, with the skin still on, be taken into the house and placed next to the lamp. A wooden bowl with the walrus kidney and some plant material was placed on the other side. A rope was tied to the head, and another to a paddle. Afterwards, the leader of the ritual put bits of meat into a wooden cup, went outside and threw it into the air (Silook 1917b, 45–46).

A similar ritual identified as "worship after whaling" involved the head and kidneys of a female walrus, feet of the first baby walrus of the season, a piece of willow, and a lamp. A wooden whale effigy was hung above the lamp. Amidst singing and drumming, the captain of the crew fed the head of the walrus and the wooden effigy (Silook 1917b, 101–03; see also Moore [1912] 2002). Silook indicates that some version of this ritual was conducted by every captain, though practices varied among families.

Other rituals described by Silook include "năsk-ōn-ē-răk," which required two groups of men—perhaps rival crews—to stand on either side of a house entrance and pull on a walrus head, attempting to wrest it from their opponents (Silook 1917b, 100–01). A rite for calling walrus involved one man acting as a harpooner and two or three others imitating the grunts of walrus (1917b, 86–88; see also Bogoras 1907, 470 on incantations for summoning walrus).

Two final examples are notable as they involve ritual activities and the use of fire outside of the house. The first account recalls the ways spirits inhabiting abandoned villages and cemeteries were honoured in Chukotka (e.g., Krupnik and Vakhtin 1997). "When the time comes, they went to the place where they had took the bear skull. They all sat down in a circle and built a small fire which they burnt little pieces of meat. When they had done, they eat some of it…. Some do not build fire, but only threw little pieces where grandparents used to do [it]" (Silook 1917b, 81). The second account is similar, but Silook (1937, 60–62) implies that each captain and crew had a specific site away from the village where they conducted rituals. Silook's report is consistent with information from Sireniki, where Angqanga indicated that each captain had his own place to set up walrus heads and conduct the appropriate rituals (Krupnik and Ainana 2000, 272). On St. Lawrence, a baby walrus flipper, a whale fluke, and tobacco were taken to the site, where a fire was kindled with dry moss. Tiny pieces of meat from the fluke were thrown into the fire while the names of the dead were spoken. Moore ([1912] 2002) provides additional detail, describing a captain's sacrifice site (*aghqesaghtughvik*) as a shallow, circular depression marked by small stones in which the flipper and fluke were burned. According to Moore (322), these rites often took place in cemeteries and involved the invocation of ancestors.

Walrus are also linked to the 1878–1880 epidemic and famine on St. Lawrence Island, which killed over two-thirds of the population and radically altered settlement patterns (Crowell and Oozevaseuk 2006; Krupnik and Chelenov 2013, 108–13; Mudar and Speaker 2003). The tragedy was widely attributed by Islanders to either the horrific treatment of a young walrus by hunters (Crowell and Oozevaseuk 2006) or the mistaken killing of a young orphaned walrus–man (Bogoras 1913, 433–34).

Nunivak Island

Walrus were not a primary food source for nineteenth- and twentieth-century Central Yup'ik people and Nelson Islanders. Seal, rather than walrus, were the focus of ritual elaboration (Fienup-Riordan 1983, 1994). Only a few communities, such as Togiak and villages on Nunivak Island, whose inhabitants differ culturally and linguistically from their mainland neighbours, were located near preferred walrus habitat.

According to Margaret Lantis (1946, 158), walrus were ritually outranked by seal, whose skulls and bladders received special treatment. She notes, like Collins on St. Lawrence Island, that this preference for seals is "peculiarly biased" given the meat and raw materials contributed by walrus. Walrus did receive elaboration in rites of passage. When young hunters took their first walrus, the event was celebrated by distribution of the meat, a sweat bath, song, and dance. The walrus head was kept in the *qazgi*, or community structure, for five days, though Lantis does not discuss what was done with it afterward (1946, 227; 1947, 6, 8).

Walrus also participated in the Bladder Festival, though their role is often obscured by that of seals. Lantis (1946, 195; 1947, 45) indicates that only the bladder of the first walrus of the season was retained for the rites. However, in

1879, Nelson (1899, 382–83) reported his impressions of the "fantastic" arrangements for the festival at Qissunaq (Kushunuk), on the Yukon-Kuskokwim delta, where he observed "several hundred" seal and walrus bladders hanging in bunches.

As on St. Lawrence and in Chukotka, the walrus head figured in a summer ritual. After the spring walrus hunt ended, a walrus head was hung on the rear wall of the men's house, facing the entrance. Gifts were exchanged and boys cast spears at the head, which was later taken down to the beach and placed facing the village in order to attract other walrus (Curtis 1930, 74). Lantis (1946, 195) provides a slightly different version of the same ritual. In her account, a walrus skull was placed in the center of the *qazgi*. In addition to the spearing of the skull, she reports that a young man poured water over the skull from a little cup before taking the skull out for placement facing the village.

The archaeology of walrus rites

The archaeological evidence for walrus ritual comes from features involving walrus skulls identified at Wales, Alaska (Harritt 2004, 2015), in cemetery contexts on St. Lawrence Island, and in "shrine" features in Chukotka (Table 1). Neither dates nor detail are provided in the Russian site reports, making the shrine interpretations impossible to evaluate. In general, these features involved the linear or circular arrangement of several walrus skulls. In Chukotka, skulls were also associated with piles of reindeer antlers and the skulls of polar bears, seals, and other mammals.

Chukotka

The majority of archaeological walrus features discussed below occur along the coast of Chukotka where the migratory routes of walrus bring them close to headlands or through bottlenecks, such as Bering Strait and the Strait of Anadyr, separating St. Lawrence Island from Cape Chukotsky on the Russian mainland. Rites conducted in the Chukchi and northern Bering Seas may be related to walrus features at Lakhtin sites south of the Anadyr estuary and to "Mandibula Sacra" sites on the northwestern coast of Kamchatka (Ptashinskii [1997] 2016).

South of Anadyr Estuary

Despite the many skull "shrines" that extend south from the Anadyr estuary to the border with Kamchatka, few have been well dated or fully described. Orekhov (1998, [1987] 1999) associated them with winter settlements of the Lakhtin culture, c. 1200 BCE. A typical shrine was distinguished by "whale mandibles set into the ground and tilted toward the sea…The ritual area is indicated by walrus skulls arranged in a line. Bones of pinnipeds predominate (up to 90%), and bones of bear [and canids] are also found" (Orekhov 1998, 268). The presence of beads, ceramics, and skin-working tools suggested to Orekhov

Table 1. Coastal sites in Alaska and Chukotka with walrus skull features

Site	Description	Time period	Source
Alaska			
Kurigitavik Mound, Wales	circular feature; nine skulls placed nose to occiput	AD 1350–1450	Harritt 2004; 2015, 51–52
St. Lawrence Island			
Sivuqaq Cemetery	human burials (not specified) with walrus skulls	Punuk	Bandi and Blumer 2002, 30
Sivuqaq Cemetery	Feature G XXIII: circular feature of walrus skulls and mandibles	Punuk?	Bandi and Blumer 2004, 144
Sivuqaq Cemetery	Feature G XXIV: circular feature with two walrus mandibles and multiple ribs	Punuk?	Bandi and Blumer 2004, 144
Chukotka (north of Anadyr estuary)			
Cape Schmidta (Ryrkaipiia)	bones of walrus, seals, deer, and fox skulls above pit house	no date	Dikov[1977] 2003, 190
Cape Vankarem	stone enclosures surrounding pits containing skulls of polar bear and walrus; hearth in association; haul-out nearby	associated with Punuk or Thule type 3 harpoon heads	Dikov [1977] 2003, 188
Seshan	stone structures with bear and walrus skulls; walrus skulls in two rows; tusks directed toward haul-out	Old Bering Sea?	Dikov [1977] 2003, 176
Enmynytnyn Cemetery I	“burial” of walrus flipper surrounded by rock wall	Old Bering Sea?	Dikov [1977] 2003, 160
Chini Cemetery	Burial 6: faced with stone slabs; walrus skull, slate knives	1605 ± 40 (MAG-228); Old Bering Sea	Dikov [1974] 2002, 14; [1977] 2003, 153
Chini Cemetery	Burial 39: faced with stone slabs; whale ribs, 3 walrus skulls	1605 ± 40 (MAG-228); Old Bering Sea	Dikov [1974] 2002, 38
Unenen	linear walrus skull feature	as early as 1200 BCE	Gusev 2014

Site	Description	Time period	Source
Chukotka (south of Anadyr estuary)			
Geka I	walrus skull with tusks mounted in center of pithouse; skulls, baculi and other bones around perimeter	Punuk harpoon point present (AD 700–1000)	Orekhov 1998; [1987] 1999, 129–34
Orianda II	shrine 4 × 6 m; gray whale mandible; walrus skulls; bones of seals, bear, fox, squirrel, birds	3300±140 (MAG-405)[1]	Orekhov [1987] 1999, 106, 136
Etchun II	Shrine I: mandible of gray whale with cluster of walrus skulls and deer antlers; wooden anthropomorphic effigy	no date	Orekhov [1987] 1999, 88
Khatyrka I	shrine; partial mandible of gray whale and cluster of walrus skulls	no date	Orekhov [1987] 1999, 74
Anna II	mandible of gray whale and walrus skulls	no date	Orekhov [1987] 1999, 69–70
Opukha Lagoon (Myllen)	“cache” of walrus skulls, human burial, shrines, and settlement	no date	Orekhov [1987] 1999, 25
Opukha I	Shrine I oval ritual area 5 m × 7 m; lower jaw of gray whale surrounded by walrus skulls	no date	Orekhov 1998; [1987] 1999, 52–55
Opukha I	cache of walrus skulls with tusks intact	no date	Orekhov [1987] 1999, 55–56
Opukha II	oval shrine 2 × 3 m; walrus skulls, mandibles, and bone points; six superimposed hearths	no date	Orekhov 1998; [1987] 1999, 57–58
Cape Rifovyi	cluster of skulls in an ‘oval ritual area’ between two settlements	no date	Orekhov [1987] 1999, 25
Nataliia II	walrus skulls and bones of deer, wolverine, bear, and dog in a ‘shrine’ at a small hill	1700s–1800s	Orekhov [1987] 1999, 23

1. Orekhov ([1987] 1999) often included uncalibrated dates in his site descriptions, but I have only included them in Table 1 when the date clearly relates to a shrine. Information on material dated is not available, so marine reservoir effects may affect calibration.

that women were involved in the rituals, while men's participation was evident in hunting tools. Lakhtin culture is poorly defined, but may be among the earliest sea mammal hunting adaptations on the stretch of coast south of Anadyr (Ackerman 1998; Dikov [1977] 2003, 145–46).

All sites in southern Chukotka are open air, with the exception of Geka I (Table 1). Among the most notable examples are three "shrines" at Opukha I, one of which measured 5 × 7 m. The center of the shrine was marked by a grey whale mandible, which was surrounded by walrus skulls plus the remains of seal, sea lion, bear, wolverine, fox, caribou, and ground squirrel. The feature also yielded a rich artifact assemblage of 220 bone points and multiple beads. The long-term use of the shrine for rites involving fire was indicated by six strata containing superimposed hearths (Orekhov [1987] 1999, 52–55).

Opukha II, a site with ten dwellings, featured an oval shrine measuring 2 × 3 m in the center of the site. The shrine contained at least twenty-one walrus crania, nine walrus mandibles, and ninety-eight bone points. Charcoal was present, as were a bead, tools, and a broken projectile point (Orekhov 1998, 270; [1987] 1999, 57–58).

The northernmost site south of the estuary, Geka I reportedly contained a Punuk (c. AD 700–1000) harpoon point in a late Lakhtin component (Orekhov 1998, 272), suggesting broader Bering Sea ties. In contrast to the open-air sites, the shrine at Geka was located in a pithouse. This context and a Punuk date link Geka I with the in-house contexts of walrus skulls on St. Lawrence Island and with Unenen, north of the estuary.

North of Anadyr Estuary

As at Geka I, the Unenen walrus skull feature—a linear arrangement—occurs in association with a structure. The earliest component of the site may date to 1500–1200 BCE (Gusev 2014), making it contemporaneous with the Lakhtin occupations to the south. Unenen (Figure 3) is adjacent to the modern town of Nunligran, where Bogoras (1907, 387) documented the ritualized distribution of the first walrus of the spring season.

Three other sites have evidence for walrus skulls in association with a pithouse (Cape Schmidta), hearth (Vankarem), and stone structure (Seshan), with both Old Bering Sea and Punuk dates (Table 1). At Chini cemetery, walrus skulls and baculi occurred in association with human graves (Dikov [1974] 2002), as they did at a Sivuqaq cemetery. At Ekven, Dinesman et al. (1999, 68–69) identified a rapid increase in walrus hunting beginning around AD 750, which is consistent with Punuk-era intensification of cooperative hunting. Whether this economic shift is associated with elaboration of walrus-centred ritual remains to be determined.

Although not a walrus skull feature, worthy of mention is an exquisite carved "hook" of walrus ivory recovered from Burial 154 at the site of Ekven. Dated to Old Bering Sea (200 BCE–AD 400), the hook was part of a spectacular

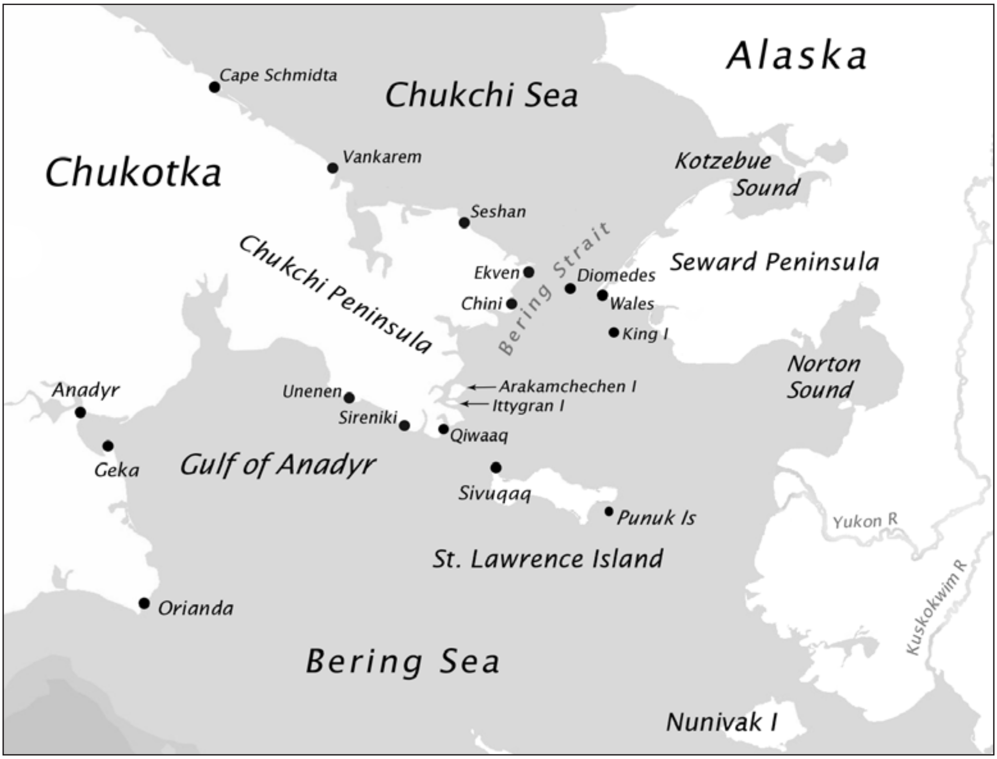
Alaska
Chukchi Sea
Cape Schmidta
Chukotka
Vankarem
Kotzebue Sound
Seshan
Bering Strait
Chukchi Peninsula
Ekven
Diomedes
Seward Peninsula
Chini
Wales
King I
Norton Sound
Arakamchechen I
Ittygran I
Anadyr
Unenen
Sireniki
Qiwaaq
Geka
Gulf of Anadyr
Sivuqaq
Punuk Is
Yukon R
St. Lawrence Island
Kuskokwim R
Orianda
Bering Sea
Nunivak I

Figure 3. Detail map of sites with evidence for walrus ritual.

assemblage interred with an elderly woman. It represents, simultaneously, a female walrus with young and a woman with a large belly and pendulous breasts. The excavators (Arutiunov and Sergeev 2006, 131–33, 186)[2] suggested the object depicted the Sea Woman, perhaps in her guise as the Mother of Walrus, described by Bogoras (1907, 315–16; Crowell 2009, 217–19, fig. 21).

St. Lawrence and the Punuk Islands

Much of St. Lawrence Island prehistory is known from the site complex at Sivuqaq (Gambell), on a northwest cape extending into the Strait of Anadyr. The site is positioned to take advantage of migrating whales and walrus in both spring and fall. The archaeological evidence for ritual involving walrus is found in structures and at an associated cemetery.

Collins (1937, 248) encountered walrus skulls "in large numbers" during his extensive excavation of a cluster of sites at Sivuqaq. They occurred in association with whale bone in Punuk-era (c. AD 700–1000) houses and entrance passages. He described three houses at three different sites, all of which were distinguished by walrus skulls (183, 187, 189) and by the use of whale ribs to roof tunnels or rooms. Two of the houses had thresholds made from whale crania. The use of walrus skulls and whale bone was sufficiently distinctive that Collins included them as characteristic building materials in one of three Punuk house types he identified (1937, 261). Walrus skulls and whale vertebrae were also used as building material at Cape Dezhnev, northeast Chukotka, in houses dated to the Old Bering Sea (Gusev, Zagoroulko, and Porotov 1999).

---

[2] I thank an anonymous reviewer for this reference.

Other evidence for walrus ritual comes from ten bone features in a Sivuqaq cemetery, comprised of the ribs, scapulae, and baculi of seals and walrus (Bandi and Blumer 2004, 134). One feature had more than 150 bones. Table 1 lists available information on two of the features. Located in the same area was evidence of partially burned animal bones (unidentified), wood charcoal, and gravels that had been exposed to fire. The location of these features in a cemetery may indicate the conduct of fire-oriented rituals related to the dead; however, the excavators also suggested that the bone piles and thermal features were associated with hunting rites.

In addition to the features, Punuk-era burials in the same cemetery were occasionally marked with walrus bones, including skulls, which were placed at the foot of the deceased (Bandi and Blumer 2002, 30). More common was the use of whale bone in grave construction, including ribs, mandibles, and portions of the skull.

Okvik in the Punuk Islands also featured concentrations of walrus skulls (Rainey 1941, 468), though their date and context are unknown. The islands host several walrus haul-outs, and have traditionally been a productive hunting site for St. Lawrence Islanders. The skulls could therefore be the product of natural mortality, the debris of human hunting and butchery, or the remains of ritual activity. The islands were inhabited on a semi-permanent basis in the past, so it is possible that the accumulation represents a ritual feature associated with the habitation site.

Alaska

There are two examples of walrus skull features from the Alaska coast. In the 1880s, John Murdoch (1892, 434) described the bottom of a pond near the village of Utqiaġvik as “covered with old walrus skulls as if they had been deposited there for years.” The only other example of a walrus skull feature is from Wales, on the eastern end of the Seward Peninsula where the Bering Strait reaches its narrowest point.

A “walrus skull ring” measuring 1.5 m across with skulls placed nose to occiput was excavated at the site of Kurigtavik Mound, Wales, in association with House 1 (Harritt 2004). The feature is securely dated to AD 1350–1450. Objects in association included a piece of armor plate, an arrowhead, and a whetstone. A second looser arrangement of skulls about a meter from the first ring was also identified (Harritt 2015, 51).

Discussion and conclusions

Virtually all of the rites described above evidence syncretism among peoples, practices, and beliefs around Bering Strait, the dynamic "crossroads of continents" (Fitzhugh and Crowell 1988) that has generated millennia of complex beliefs and adaptations while blurring origins and ethnic identities. Walrus-focused rituals have been conducted in various forms by Yupik ancestors for at least 1,300 years, i.e., since the Punuk era. Those rites diversified and changed through contact with Chukchi and through the acts of individuals who created new practices to meet emerging needs while eliminating others. The incorporation of fire into Chukotkan and St. Lawrence Island rites distinguishes those traditions from Nunivak Island and mainland Alaska, where fire does not appear to play a central role in ritual. Chukchi belief and material culture make extensive use of fire (Vaté 2005, 2007), and may be the source of the initial impetus to incorporate lamps and burnt offerings into sea mammal ritual.

While the specifics differ from Chukotka to St. Lawrence to Nunivak, the walrus head retains centrality in the rites across the region. These rites, along with archaeological skull features, are part of broader tradition involving animal skull curation and deposition in the Bering Sea region and northern Asia (Paulson 1968). Whale bone features such as "Whale Alley" (Chelenov and Krupnik 1984; Krupnik and Chelenov 2013, 214–17) on Ittygran Island are spectacular versions of analogous practices on a much smaller scale involving walrus, beluga (Hill 2012), and seal skulls (Giddings and Anderson 1986, 131; Hill 2018). Other examples include Dikov's ([1977] 2003, 186) reports of shrine-like piles of bear skulls at Koliuchin Island, deposits of seal skulls, polar bear skulls, and antlers at Kuemkai Creek (189), and monuments featuring individual skulls or mandibles of killer whales (154).

Although walrus kidneys and bladders feature in ethnohistoric accounts, only bones, teeth, and antlers survive in the archaeological record. The clear focus on and preference for skulls and antlers suggests that Indigenous conceptions of animal personhood vested the head with both sentience and prescience. In the nineteenth century, heads "attended" in-house rituals as guests (Menovščikov 1968, 439–40), ensuring that proper respect and thanks were conveyed from humans to animals. Heads were also vested with divinatory and communicative powers, linking humans to the herds more generally and, possibly, linking the living to ancestors or the dead more generally.

In his ethnography of walrus hunting among Diomede and King Islanders, Sergei Bogojavlensky argued that walrus hide was "a pervading symbol of social solidarity" (1969, 71; see also Ellanna 1988). Hides materialized links between walrus boat captains and their crews, representing hunting success, economic surplus, and the bonds of kinship and cooperation. The walrus head and skull ceremonies conducted by captains and their wives served an analogous function—to cement and maintain bonds among captains, crews, and their families. These bonds, founded in kinship and marriage, were enacted and reinforced through shared observance of walrus rites and the feasting that followed. This interpretation is consistent with ethnohistoric accounts and explains some patterns observed archaeologically.

In the Eastern Arctic, Thule whale bone houses have been interpreted as representations of whales, complete with entrances made of jaw bones. While whale bone makes a practical alternative to wood in a treeless environment, whale bone also functioned in metaphorical terms and as a status marker (Patton and Savelle 2006). Like Thule use of whale bone, the walrus skulls at Sivuqaq functioned on multiple levels. Using walrus skulls as building material marked the status of a structure's inhabitants. The highly formalized system of dividing up walrus among hunting crews resulted in the captain's possession of the most desirable parts, including tusks and hide, either for his own use or for strategic distribution (Ellanna 1988). The hides of female walrus, in particular, were the material foundation of captaincy, as at least four or five hides were required to cover an open skin boat.

While Collins considered the unmodified walrus skulls and whale bone at Sivuqaq to be structural (see also Moore 1923), both materials carried a heavy symbolic load. Just as possession and distribution of female walrus hides symbolized crew solidarity (Bogojavlensky 1969), possession and display of walrus skulls and incorporation into structures signaled a captain's success. Such a captain could take enough walrus to cover a boat, supply his crew with meat, and lead the rituals honouring walrus, thus ensuring future success. As Paul Silook's (1917b) accounts demonstrate, the walrus head was the ritual focus for St. Lawrence Islanders in the late nineteenth and early twentieth century. Therefore, the presence of skulls in Punuk houses, even when used as building materials, was likely meaningful.

Skulls in house contexts on St. Lawrence Island, Unenen, and Geka I and in burial contexts the Sivuqaq and Chini cemeteries associate emerging elites with the intensification of cooperative walrus hunting during the Punuk phase and possibly as early as the Old Bering Sea period (200 BCE–AD 400). Punuk developments also included the construction of the ritual complexes of Ittygran Island and Masik, in Chukotka; institutionalized whaling, and increased warfare (Bronshtein, Dneprovsky, and Savinetsky 2016; Dinesman et al. 1999; Fitzhugh 2009; Mason 2009). Each of these phenomena required leadership and cooperation on a scale unprecedented in the region. Whether the early Lakhtin sites with their ritual features in southern Chukotka relate to developments farther north remains unclear, as does the relationship between Old Bering Sea and Punuk. At this point, one key distinction between Old Bering Sea and Punuk appears to be a shift from terrestrial hunting of walrus by individuals or pairs to cooperative sea-ice hunting leading to surplus and the emergence of elites. Patterns in walrus numbers identified at Ekven support this inference (Dinesman et al. 1999, 68–69).

Despite the lack of chronological control, some inferences can be made based on the data discussed above:

- Animal rites involving skulls included sea mammals as well as the remains of terrestrial animals such as deer antlers and polar bear and canid skulls.
- The use of lamps and/or fire is clearly documented ethnographically, with additional, limited evidence for its use as early as the Punuk era (e.g., Bandi and Blumer 2004).
- Some rituals appear to be dedicated to ancestors or to the dead more generally (e.g., Krupnik and Ainana 2000; Moore [1912] 2002).
- Archaeological evidence for the presence of walrus heads in houses is consistent with ethnographic accounts of private in-house rituals conducted by boat captains (e.g., Bogojavlensky 1969; Krupnik and Ainana 2000, 268–71).
- Some walrus ritual sites appear to be spatially linked to haul-outs (e.g., Bernard 1923).
- Walrus ritual served an integrative function, enabling boat captains to consolidate crew, enhance their own status, and maintain surplus in hides, meat, and tusks (e.g., Bogojavlensky 1969).

Walrus were omnipresent in material culture on both sides of Bering Strait. Hides, heads, and tusks were powerful symbols of status, cooperation, leadership, and hunting prowess. Despite the relative lack of visibility of walrus ritual to non-Indigenous observers, ethnohistoric and ethnographic sources indicate that St. Lawrence Islanders, Siberian Yupiget, and Chukchi celebrated the spring arrival of walrus and conducted thanksgiving rituals following their departure. In contrast to whaling ceremonies, walrus observances occurred on a smaller scale and were subject to local and individual variation. These rituals were part of a marine adaptation that depended not only upon cooperation among humans, but also upon respectful relations among species.

Acknowledgements

Research for this article was conducted with support from the Arctic Social Sciences Program, National Science Foundation (ARC-1022523). Fieldwork at Unenen in 2007, when the walrus feature at the site was first identified, was conducted under the direction of Daniel Odess and Sergey Gusev with funding from National Science Foundation (no. 0714062). I thank Igor Krupnik for his detailed review of an earlier version of this paper, and his assistance with translation questions and village names. I also thank two anonymous reviewers, whose thoughtful comments have greatly improved this paper. Laurel Kendall

and Barry Landua of the American Museum of Natural History, New York, made it possible to publish the photo of the Chukchi walrus ritual. Thanks to Eleanor Burgess for the map. Finally, I am grateful to Frédéric Laugrand for the invitation to contribute to this issue. His work and that of Jarich Oosten represent extraordinary contributions to the study of human relations with animals in the North American Arctic.

References

ACKERMAN, Robert E.

1998 "Early Maritime Traditions in the Bering, Chukchi, and East Siberian Seas." *Arctic Anthropology* 35 (1):247–62.

ANICHTCHENKO, Evguenia V.

2016 "Open Passage: Ethno-Archaeology of Skin Boats and Indigenous Maritime Mobility of North American Arctic." PhD diss., University of Southampton.

ARUTIUNOV, Sergei A., and Dorian A. SERGEEV

2006 *Problems of Ethnic History in the Bering Sea: The Ekven Cemetery*. Translated by R.L. Bland. Anchorage, AK: Shared Beringian Heritage Program, National Park Service.

BANDI, Hans-Georg, and Reto BLUMER

2002 "Investigations by Swiss Archaeologists on St. Lawrence Island, Alaska." In *Archaeology in the Bering Strait Region: Research on Two Continents*, edited by D.E. Dumond and R.L. Bland, 25–59. Eugene: Department of Anthropology, University of Oregon Anthropological Papers, no. 59.

2004 "Analyse finale des tombes préhistoriques de l'île St. Laurent, Alaska." In *St. Lorenz Insel Studien: Berner Beiträge zur archäologischen und ethnologischen Erforschung des Beringstrassengebietes*, Bd. IV. *Physische Anthropologie und Archäo-Chronologie der St. Lorenz Insel-Urbevölkerung, Alaska*, edited by H.-G. Bandi and R. Blumer, 129–73. Bern: Haupt.

BERNARD, Joseph F.

1923 "Local Walrus Protection in Northeast Siberia." *Journal of Mammalogy* 4 (4):224–27.

BLACK, Lydia T.

1991 *Glory Remembered: Wooden Headgear of Alaska Sea Hunters*. Juneau: Alaska State Museums.

BOCKSTOCE, John R., and Daniel B. BOTKIN

1982 "The Harvest of Pacific Walruses by the Pelagic Whaling Industry, 1848 to 1914." *Arctic and Alpine Research* 14 (3):183–88.

BOGOJAVLENSKY, Sergei

1969 "Imaangmiut Eskimo Careers: Skinboats in Bering Strait." PhD diss., Harvard University.

BOGORAS, Waldemar

1907 *The Chukchee*. Vol. 11, part 2, *Religion*. New York: Memoirs of the American Museum of Natural History.

1913 *The Eskimo of Siberia*. Vol. 12, part 3. New York: Memoirs of the American Museum of Natural History.

BORN, Erik W., Ian GJERTZ, and Randall R. REEVES
1995 *Population Assessment of Atlantic Walrus (Odobenus rosmarus rosmarus* L.*)*. Oslo, Meddelelser no. 138, Norsk Polarinstitutt.

BRAUND, Stephen R.
1988 *The Skin Boats of Saint Lawrence Island, Alaska*. Seattle: University of Washington Press.

BRONSHTEIN, Mikhail M., Kirill A. DNEPROVSKY, and Arkady B. SAVINETSKY
2016 "Ancient Eskimo Cultures of Chukotka." In *The Oxford Handbook of the Prehistoric Arctic*, edited by T. Max Friesen and Owen K. Mason, 469–88. New York: Oxford University Press.

CHAUSSONNET, Valérie, and Bernadette DRISCOLL
(1988) 1994 "The Bleeding Coat: The Art of North Pacific Ritual Clothing." In *Anthropology of the North Pacific Rim*, edited by William Fitzhugh and Valérie Chaussonnet, 109–31. Washington, DC: Smithsonian Institution Press.

CHELENOV, Mikhail A., and Igor I. KRUPNIK
1984 "Whale Alley: A Site on the Chukchi Peninsula, Siberia." *Expedition* 26 (2):6–15.

COLLINS, Henry B.
1937 *Archeology of St. Lawrence Island*. Washington, DC: Smithsonian Institution Press.

COOK, James, Captain
1784 *A Voyage to the Pacific Ocean Undertaken by Command of His Majesty for Making Discoveries in the Northern Hemisphere*, Vol. 3. London: John Stockdale, Scatcherd and Whitaker, John Fielding, and John Hardy.

CROWELL, Aron L.
2009 "Sea Mammals in Art, Ceremony, and Belief: Knowledge Shared by Yupik and Iñupiaq Elders." In *Gifts from the Ancestors: Ancient Ivories of Bering Strait*, edited by William W. Fitzhugh, Julie Hollowell, and Aron L. Crowell, 206–25. Princeton, NJ: Princeton University Art Museum.

CROWELL, Aron L., and Estelle OOZEVASEUK
2006 "The St. Lawrence Island Famine and Epidemic, 1878–80: A Yupik Narrative in Cultural and Historical Context." *Arctic Anthropology* 43 (1):1–19.

CROWELL, Aron L., Rosita WORL, Paul C. ONGTOOGUK, and Dawn B. BIDDISON, eds.
2010 *Living Our Cultures, Sharing Our Heritage: The First Peoples of Alaska*. Washington, DC: Smithsonian Books.

CURTIS, Edward S.
1930 *The North American Indian*. Vol. 20, *The Alaskan Eskimo*. Norwood, MA: Plimpton Press.

DIKOV, Nikolai N.
(1974) 2002 *The Chini Cemetery: A History of Sea Mammal Hunters in Bering Strait*. Translated by R.L. Bland. Anchorage, AK: Shared Beringian Heritage Program, National Park Service.

(1977) 2003 *Archaeological Sites of Kamchatka, Chukotka, and the Upper Kolyma*. Translated by R.L. Bland. Anchorage, AK: Shared Beringian Heritage Program, National Park Service.

DINESMAN, Lev G., Nina K. KISELEVA, Arkady B. SAVINETSKY, and Bulat F. KHASSANOV

1999 *Secular Dynamics of Coastal Zone Ecosystems of the Northeastern Chukchi Peninsula*. Tübingen: Mo Vince Verlag.

DRISCOLL, Bernadette

1987 "Pretending to Be Caribou: The Inuit Parka as an Artistic Tradition." In *The Spirit Sings: Artistic Traditions of Canada's First Peoples*, 169–200. Toronto: McClelland and Stewart; Calgary, AB: Glenbow Museum. Exhibition catalogue.

ELLANNA, Linda J.

1988 "Skin Boats and Walrus Hunters of Bering Strait." *Arctic Anthropology* 25 (1): 107–19.

FAY, Francis H.

1957 "History and Present Status of the Pacific Walrus Population." *Transactions of the North American Wildlife Conference* 22:431–45.

1985 "*Odobenus rosmarus*." *Mammalian Species* 238:1–7.

FIENUP-RIORDAN, Ann

1983 *The Nelson Island Eskimo: Social Structure and Ritual Distribution*. Anchorage: Alaska Pacific University Press.

1994 *Boundaries and Passages: Rule and Ritual in Yup'ik Eskimo Oral Tradition*. Norman: University of Oklahoma Press.

FITZHUGH, William W.

2009 "Notes on Art Styles, Cultures, and Chronology." In *Gifts from the Ancestors: Ancient Ivories of Bering Strait*, edited by William W. Fitzhugh, Julie Hollowell, and Aron L. Crowell, 88–93. Princeton, NJ: Princeton University Art Museum.

FITZHUGH, William W., and Aron L. CROWELL, eds.

1988 *Crossroads of Continents: Cultures of Siberia and Alaska*. Washington, DC: Smithsonian Institution Press.

FITZHUGH, William W., Julie HOLLOWELL, and Aron L. CROWELL, eds.

2009 *Gifts from the Ancestors: Ancient Ivories of Bering Strait*. Princeton, NJ: Princeton University Art Museum.

FORD, James A.

1959 *Eskimo Prehistory in the Vicinity of Point Barrow, Alaska*. Vol. 47, pt. 1. New York: American Museum of Natural History, Anthropological Papers of the American Museum of Natural History.

GADAMUS, Lily, and Julie RAYMOND-YAKOUBIAN

2015 "A Bering Strait Indigenous Framework for Resource Management: Respectful Seal and Walrus Hunting." *Arctic Anthropology* 52 (2):87–101.

GIDDINGS, J. Louis, and Douglas D. ANDERSON

1986 *Beach Ridge Archeology of Cape Krusenstern: Eskimo and Pre-Eskimo Settlements around Kotzebue Sound, Alaska*. Washington, DC: National Park Service.

GUSEV, Sergey V.

2014 "Raskopki poseleniya Unenen (Drevnekitoboynaya kul'tura) na vostochnoy Chukotke v 2007–2014 gg" [Archeological dig of the Unenen settlement (Ancient Whaler Culture) Eastern Chukotka in 2007–2014]. *Kulturologicheskiy zhurnal / Journal of Cultural Research* 3 (17). http://www.cr-journal.ru/rus/journals/286.html&j_id=20.

GUSEV, Sergey V., Andrey V. ZAGOROULKO, and Aleksey V. POROTOV

1999 "Sea Mammal Hunters of Chukotka, Bering Strait: Recent Archaeological Results and Problems." *World Archaeology* 30 (3):354–69.

HARRITT, Roger K.

2004 "A Preliminary Reevaluation of the Punuk–Thule Interface at Wales, Alaska." *Arctic Anthropology* 41 (2):163–76.

2015 *The Wales, Alaska, Archaeology Project 1996–2006*. Eugene: Museum of Natural and Cultural History, University of Oregon Anthropological Papers, no. 71.

HILL, Erica

2011 "The Historical Ecology of Walrus Exploitation in the North Pacific." In *Human Impacts on Seals, Sea Lions, and Sea Otters: Integrating Archaeology and Ecology in the Northeast Pacific*, edited by Todd J. Braje and Torben C. Rick, 41–64. Berkeley: University of California Press.

2012 "The Nonempirical Past: Enculturated Landscapes and Other-than-Human Persons in Southwest Alaska." *Arctic Anthropology* 49 (2):41–57.

2018 "A Relational Geography of Humans and Animals on the Arctic Coast of Alaska." In *Relational Engagements of the Indigenous Americas: Alterity, Ontology, and Shifting Paradigms*, edited by Melissa R. Baltus and Sarah E. Baires, 1–19. Lanham, MD: Lexington Books.

HOLLOWELL, Julie

2009 "Paul Silook: St. Lawrence Islander and Anthropologist." In *Gifts from the Ancestors: Ancient Ivories of Bering Strait*, edited by William W. Fitzhugh, Julie Hollowell, and Aron L. Crowell, 28–29. Princeton, NJ: Princeton University Art Museum.

HUGHES, Charles C.

1960 *An Eskimo Village in the Modern World*. Ithaca, NY: Cornell University Press.

1984 "Saint Lawrence Island Eskimo." In *Handbook of North American Indians*. Vol. 5, *Arctic*, edited by David Damas, 262–77. Washington, DC: Smithsonian Institution Press.

HUNTINGTON, Henry P., George NOONGWOOK, Nicholas A. BOND, Bradley BENTER, Jonathan A. SNYDER, and Jinlun ZHANG

2013 "The Influence of Wind and Ice on Spring Walrus Hunting Success on St. Lawrence Island, Alaska." *Deep-Sea Research II: Topical Studies in Oceanography* 94:312–22.

HUNTINGTON, Henry P., Lori T. QUAKENBUSH, and Mark NELSON

2016 “Effects of Changing Sea Ice on Marine Mammals and Subsistence Hunters in Northern Alaska from Traditional Knowledge Interviews.” *Biology Letters* 12 (8). doi: 10.1098/rsbl.2016.0198.

JOLLES, Carol Zane

1995 “Paul Silook’s Legacy: The Ethnohistory of Whaling on St. Lawrence Island.” In *Hunting the Largest Animals: Native Whaling in the Western Arctic and Subarctic*, edited by Allen P. McCartney, 221–52. Edmonton, AB: Canadian Circumpolar Institute Press.

2002 *Faith, Food, and Family in a Yupik Whaling Community*. Seattle: University of Washington Press.

KAPLAN, Susan A., and Kristin J. BARSNESS

1986 *Raven’s Journey: The World of Alaska’s Native People*. Philadelphia: University Museum, University of Pennsylvania.

KAWERAK, Inc.

2013 *Seal and Walrus Harvest and Habitat Areas for Nine Bering Strait Communities*. Nome, AK: Kawerak, Inc. Social Science Program.

KRUPNIK, Igor I.

1993 *Arctic Adaptations: Native Whalers and Reindeer Herders of Northern Eurasia*. Hanover: University Press of New England.

KRUPNIK, Igor, and Lyudmila AINANA

2000 *Pust’ govoriat nashi stariki: Rasskazy aziatskikh eskimosov-iupik* (Let our elders speak: Stories of the Yupik/Asian Eskimo). Moscow: Russian Heritage Institute.

KRUPNIK, Igor, and Michael CHLENOV

2013 *Yupik Transitions: Change and Survival at Bering Strait, 1900–1960*. Fairbanks: University of Alaska Press.

KRUPNIK, Igor, and G. Carleton RAY

2007 “Pacific Walruses, Indigenous Hunters, and Climate Change: Bridging Scientific and Indigenous Knowledge.” *Deep-Sea Research II: Topical Studies in Oceanography* 54 (23–26):2946–57.

KRUPNIK, Igor, and Nikolay VAKHTIN

1997 “Indigenous Knowledge in Modern Culture: Siberian Yupik Ecological Legacy in Transition.” *Arctic Anthropology* 34 (1):236–52.

LANTIS, Margaret

1938 “The Alaskan Whale Cult and Its Affinities.” *American Anthropologist* 40 (3):438–64.

1940 “Note on the Alaskan Whale Cult and Its Affinities.” *American Anthropologist* 42 (2):366–68.

1946 “The Social Culture of the Nunivak Eskimo.” *Transactions of the American Philosophical Society* 35:153–323.

1947 *Alaskan Eskimo Ceremonialism*. New York: J.J. Augustin.

LINDQVIST, Charlotte, Lutz BACHMANN, Liselotte W. ANDERSEN, Erik W. BORN, Ulfur ARNASON, Kit M. KOVACS, Christian LYDERSEN, Alexei V. ABRAMOV, and Øystein WIIG

2009 “The Laptev Sea Walrus *Odobenus rosmarus laptevi*: An Enigma Revisited.” *Zoologica Scripta* 38 (2):113–27. doi:10.1111/j.1463-6409.2008.00364.x.

MacCRACKEN, James G.

2012 “Pacific Walrus and Climate Change: Observations and Predictions.” *Ecology and Evolution* 2 (8):2072–90. doi: 10.1002/ece3.317.

MacCRACKEN, James G., William S. BEATTY, Joel L. GARLICH-MILLER, Michelle L. KISSLING, and Jonathan A. SNYDER

2017 *Final Species Status Assessment for the Pacific Walrus (Odobenus rosmarus divergens)*, May 2017 (version 1.0). Anchorage, AK: Marine Mammals Management, U.S. Fish and Wildlife Service.

MASON, Owen K.

2009 “Flight from the Bering Strait: Did Siberian Punuk/Thule military Cadres Conquer Northwest Alaska?” In *The Northern World, AD 900–1400*, edited by H.D.G. Maschner, O.K. Mason, and R. McGhee, 76–128. Salt Lake City: University of Utah Press.

MENOVŠČIKOV, G.A.

1968 “Popular Conceptions, Religious Beliefs and Rites of the Asiatic Eskimos.” In *Popular Beliefs and Folklore Tradition in Siberia*, edited by V. Diószegi, 433–49. The Hague: Mouton & Co.

MOORE, Riley D.

1923 “Social Life of the Eskimo of St. Lawrence Island.” *American Anthropologist* 25 (3):339–75.

(1912) 2002 “Ceremonies of the Inhabitants of St. Lawrence Island, Alaska.” In *Akuzilleput Igaqullghet/Our Words Put to Paper: Sourcebook in St. Lawrence Island Heritage and History*, edited by Igor Krupnik, Willis Walunga, and Vera Metcalf, 319–22. Washington, DC: Arctic Studies Center, Smithsonian Institution.

MUDAR, Karen, and Stuart SPEAKER

2003 “Natural Catastrophes in Arctic Populations: The 1878–1880 Famine on Saint Lawrence Island, Alaska.” *Journal of Anthropological Archaeology* 22 (2):75–104.

MURDOCH, John

1892 *Ethnological Results of the Point Barrow Expedition*. Washington, DC: Government Printing Office.

NELSON, Edward William

1899 *The Eskimo about Bering Strait*. Washington, DC: Government Printing Office.

OREKHOV, Aleksandr A.

1998 “The Development of Maritime Adaptations among the Early Populations of the Northwest Bering Sea Region.” *Arctic Anthropology* 35 (1):263–80.

(1987) 1999 *An Early Culture of the Northwest Bering Sea*. Translated by R.L. Bland. Anchorage, AK: Shared Beringian Heritage Program, National Park Service.

PATTON, A. Katherine, and James M. SAVELLE

2006 “The Symbolic Dimensions of Whale Bone Use in Thule Winter Dwellings.” *Études Inuit Studies* 30 (2):137–61.

PAULSON, I.

1968 “The Preservation of Animal Bones in the Hunting Rites of Some North-Eurasian Peoples.” In *Popular Beliefs and Folklore Tradition in Siberia*, edited by V. Diószegi, 451–57. The Hague: Mouton & Co.

PTASHINSKII, A.V.

(1997) 2016 “Abandoned Shrines: A New Type of Cult Site on the Northwest Coast of Kamchatka.” In *Materials and Studies on the Archaeology of the Northern Far East and Adjacent Territories*, edited by R.S. Vasil’evskii and A.I. Lebedintsev, 137–49. Anchorage, AK: Shared Beringian Heritage Program, National Park Service.

RAINEY, Froelich G.

1941 *Eskimo Prehistory: The Okvik Site on the Punuk Islands*. New York: American Museum of Natural History.

RAY, G. Carleton

2009 “Walrus, the Beringian ‘Tooth-Walker.’” In *Gifts from the Ancestors: Ancient Ivories of Bering Strait*, edited by W.W. Fitzhugh, J. Hollowell, and A.L. Crowell, 46–51. Princeton, NJ: Princeton University Art Museum.

RAYMOND-YAKOUBIAN, Brenden, Lawrence KAPLAN, Meghan TOPKOK, and Julie RAYMOND-YAKOUBIAN

2015 *“The World Has Changed”: Iŋalit Traditional Knowledge of Walrus in the Bering Strait. Final Report to the North Pacific Research Board*. Nome, AK: Social Science Program, Kawerak, Inc.

RUDENKO, Sergei I.

(1947) 1961 *The Ancient Culture of the Bering Sea and the Eskimo Problem*. Toronto: Arctic Institute of North America and University of Toronto Press.

SCHAAF, Jeanne M.

2017 *Archaeological Investigations at the Qayassiq Site (XNB-00043) Round Island, Walrus Islands State Game Sanctuary, Northern Bristol Bay, Alaska*. Anchorage, Cultural Resource Report NPS/AKRO/CRR-2017/002, Alaska Regional Office, National Park Service.

SILOOK, Paul

1917a Silook Journals, book 3. Daniel S. Neuman Papers, MS 162, box 1, folder 5. Juneau, Historical Collections, Alaska State Library.

1917b Silook Journals, book 10. Daniel S. Neuman Papers, MS 162, box 1, folder 10. Juneau, Historical Collections, Alaska State Library.

1937 Stories & Ceremonies. Paul Silook Papers, MS 276, series 2, journal 3. Juneau, Historical Collections, Alaska State Library.

STANFORD, Dennis J.

1976 *The Walakpa Site, Alaska: Its Place in the Birnirk and Thule Cultures*. Washington, DC: Smithsonian Institution Press.

STELLER, Georg Wilhelm

(1751) 1899 “De bestiis marinis or, the Beasts of the Sea.” In *The Fur Seals and Fur-Seal Islands of the North Pacific Ocean*, edited by D.S. Jordan, Washington, DC: Government Printing Office.

(1774) 2002 *Steller’s History of Kamchatka*. Translated by M. Engel and K. Willmore. Fairbanks: University of Alaska Press.

VATÉ, Virginie

2005 “*Kilvêi*: The Chukchi Spring Festival in Urban and Rural Contexts.” In *Rebuilding Identities: Pathways to Reform in Post-Soviet Siberia*, edited by E. Kasten, 39–62. Berlin: Dietrich Reimer Verlag.

2007 “The Kêly and the Fire: An Attempt at Approaching Chukchi Representations of Spirits.” In *La nature des esprits dans les cosmologies autochtones/Nature of Spirits in Aboriginal Cosmologies*, edited by Frédéric Laugrand and Jarich Oosten, 219–36. Québec: Presses de l’Université Laval.

VOBLOV, I.K.

1959 “Eskimo Ceremonies.” *Anthropological Papers of the University of Alaska* 7 (2):71–90.

ZDOR, Eduard, Liliya ZDOR, and Lyudmila AINANA

2010 *Traditional Knowledge of the Native People of Chukotka about Walrus*. Nome, AK: Chukotka Association of Traditional Marine Mammal Hunters, Anadyr and Eskimo Walrus Commission.