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Article abstract

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Anna Mossolova,ⁱ Rick Knecht,ⁱⁱ Edouard Masson-MacLean,ⁱⁱⁱ and Claire Houmard^{iv}

ABSTRACT

The precontact lifeways of Yup'ik people in Southwest Alaska were poorly known until the 2009–2018 excavations at the Nunalleq site near the village of Quinhagak. Until recently, the site dating from around AD 1400–1675 had been locked in permafrost that secured the extraordinary preservation of organic artefacts and faunal materials. As in many other hunter-gatherer communities across the North, animals were economically and culturally central to the lives of Nunalleq residents. This multidisciplinary paper combines the ethnographic study of unearthened artefacts with the results of subsistence and dietary studies at Nunalleq, and demonstrates how precontact Yup'ik ecologies were embodied in material culture, particularly in the iconography of ceremonial objects such as masks and mask attachments. Early ethnographic records and collections suggest that Yup'ik masks were often complex in structure and imagery, and can be considered miniature models of a multilayered and ensouled universe. Masks and other material culture representations highlight the way humans and animals are related and ontologically linked in Yup'ik worldviews. By taking this approach, this study aims to better understand the role of animals in the belief systems and lifeways of a precontact Nunalleq community.

KEYWORDS

Alaska, Yup'ik prehistory, human–animal relationships, relational ontologies, masks

RÉSUMÉ

Chassés et honorés : Représentations animales sur les masques du site précontact de Nunalleq, sud-ouest alaskien

Le mode de vie des communautés yup'ik pendant la période précontact dans le sud-ouest de l'Alaska était peu connu avant les fouilles archéologiques récentes,

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entre 2009 et 2018, sur le site de Nunalleq, près du village de Quinhagak. Jusqu'à récemment, le site daté principalement entre 1400 et 1675 après J.-C., était scellé par le pergélisol garantissant la préservation extraordinaire d'objets organiques et de restes fauniques. Comme dans d'autres sociétés septentrionales de chasseurs-cueilleurs, les animaux occupaient une place centrale, d'un point de vue économique et culturel. C'est le mode de vie adopté par les occupants de Nunalleq. Cet article pluridisciplinaire associe l'étude iconographique des artefacts avec les résultats des études sur la subsistance et la diète à Nunalleq, et démontre la manière dont les écologies Yup'ik avant le contact euro-américain étaient intégrées dans la culture matérielle, en particulier dans l'iconographie des objets cérémoniaux tels que les masques et leurs accessoires. Les premières collections et données ethnographiques suggèrent que les masques yup'ik étaient complexes dans leur structure et leur imagerie, et pouvaient être considérés comme des modèles miniatures d'un univers à plusieurs niveaux et dotés d'une âme. Les masques et autres représentations dans la culture matérielle soulignent la manière dont les humains et les animaux sont liés et ontologiquement unis dans le mode de représentation du monde yup'ik. En adoptant cette approche, cette étude a pour objectif de mieux comprendre le rôle des animaux dans les croyances et les modes de vie à Nunalleq, pendant la période précontact.

MOTS-CLÉS

Alaska, préhistoire Yup'ik, relations homme-animal, ontologies relationnelles, masques

Relatively little is known of Yup'ik lifeways prior to the first Euro-American contact that took place around the 1820s (Barker, Fienup-Riordan, and John 2010). The previous lack of archaeological research in the Yukon–Kuskokwim Delta (Y–K Delta) was ascribed to logistical and transport difficulties in the area (VanStone 1984a, 1984b; Shaw 1998), and to traditional Yup'ik beliefs that disfavour the disturbance of ancient sites (Knecht 2014, 43; Frink 2016). Today, the drastic impact of coastal erosion, melting permafrost, and marine inundation that are steadily destroying unique archaeological sites such as Nunalleq have forced local communities to revise this stand for the sake of cultural preservation, as well as for the benefit of younger generations who are too often disconnected from their cultural roots and values (Knecht 2014; Hillerdal, Knecht, and Jones 2019).

The excavations at the Nunalleq site (Figure 1), a semi-subterranean sod house complex and its exteriors, provide a unique insight into lifeways in the Y–K Delta region as they existed at least two to three centuries prior to contact. The dwelling appears to have been occupied for a period of up to three hundred years (from ca. AD 1400 to 1675), with the densest occupation levels dating between AD 1570 to 1675 (Ledger et al. 2018). The latest occupation period coincides with the peak of the Little Ice Age that may have

intensified the competition for resources, resulting in a period of violent inter-village conflict known to Yup'ik oral history as the Bow-and-Arrow Wars (Funk 2010, 537–38; Fienup-Riordan and Rearden 2016, 18–20). Both oral history and archaeological evidence affirm that the settlement was attacked and set ablaze by rivals from another village (Knecht 2014, 45–46; Fienup-Riordan, Rearden, and Knecht 2015).

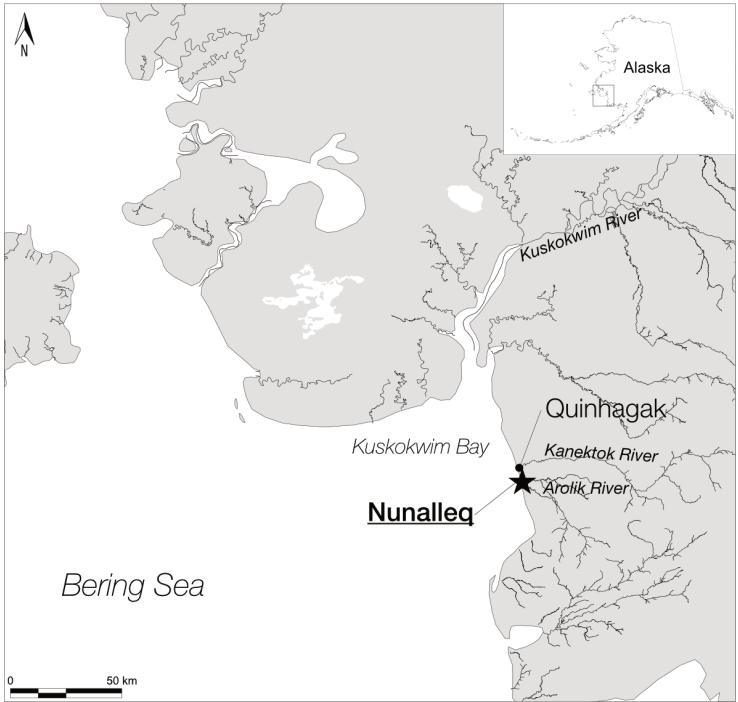


Figure 1. Location of the Nunalleq site.

Long gripped by permafrost, the site is exceptionally well preserved. In the course of eight short field seasons, the site has produced a vast collection of artefacts, numbering over 100,000 items, mainly made of organic materials, and a large bioarchaeological assemblage, including animal bone and fur, human hair, as well as plant and insect remains. This collection has allowed for detailed reconstructions of the diet and subsistence strategies of Nunalleq residents (Britton et al. 2013; Britton et al. 2018; Forbes et al. 2015; Knecht 2014; Masson-MacLean 2018; Masson-MacLean, McManus-Fry, and Britton 2020), and other studies presented in this special issue. Material culture from the site abounds in animal design attesting to the fact that animals were both economically and culturally central to the lives of the

precontact Yup'ik community (Masson-MacLean et al. 2019, 141–45; Mossolova and Knecht 2019, 33–34).

Early ethnographies and ethnohistoric accounts (Nelson 1899; Lantis 1946, 1947; Ostermann 1952; Zagoskin 1967; Himmelheber [1953] 1993; Jacobsen 1977) that documented Yup'ik lifeways, ceremonies, and folklore suggest that animals in Yup'ik society were conceived as conscious beings able to think, speak, and act as humans do—that is, as “other-than-human persons” (Hallowell 1960). This belief system endowed animals with agency and, hence, required hunters to use a variety of ritualized practices to communicate with and demonstrate respect to animals—a worldview that appears to have a significant time-depth in the North in general, and along the Bering Sea coast in particular (Jordan 2008; Losey 2010; Hill 2011, 2013). In this paper, we will use the term *relational ontologies* to refer to this set of beliefs, “in which animals and other ‘things’ act as independent, sentient agents and are constituted socially, through performative interaction” (Hill 2011, 120).

Daily human–animal interactions, which occurred through speech, thought, and action, intensified during communal ceremonies that were designed to create a liminal time and space in which animal spirits were invited to enter the human world so as to honour and maintain the relationships between humans, animals, and the spirit-masters of game, who release animals to the hunter (Fienup-Riordan 1994; Jordan 2008; Hill 2011). Nelson (1899, 395) described mask festivals as events of thanksgiving to the spirits and power of earth, air, and water for giving the hunters success.¹ The presence of animal spirits in rituals was invoked by means of masks, which were worn not to conceal but rather to reveal the unseen, to uncover another “person” (Ingold 2000, 123–24). Both stylized and realistic animal masks embodied transformation from one “person” to another, enabling animal spirits to incarnate in human form and humans to see as animals (Fienup-Riordan 1987).

Animals as nonhuman persons formed an integral part of both historic and prehistoric Yup'ik ceremonialism. Their material representations in archaeological collections are evidence for complex intersubjective relationships between humans and animals, and can be considered “the remains of ontologically informed behaviours” (Hill 2011, 412; see also David 2006, 50). This paper aims to explore the precontact human–animal dynamics at the Nunalleq site in both subsistence and ontological terms²

1. Nelson (1899, 395–96) admits that he was unable to secure enough data on customs and beliefs connected with masks, and fears that soon after the contact, mask festivals will “fall into disuse” and all the “mythological fancy” related to them become a sealed book.

2. An approach elaborated and encouraged by Hill (2011, 2013).

proceeding from the study of zoomorphic masks and their animal-shaped attachments, and data from the zooarchaeological analysis of faunal remains and previously published isotopic studies. Combining these approaches allows us to reconstruct at least some of the complex relational perspectives of prehistoric human–animal relations at Nunalleq.

The assemblage of masks and maskettes, their fragments, mask attachments, and bangles recovered from Nunalleq is outstanding and comprises over five hundred pieces, allowing not only an imagery-focused study, resting on ethnographic analogies, but also quantitative analysis (like frequency estimates for species represented) to be applied. The study will show that certain animals might have had a special ontological position as other-than-human persons in Nunalleq cosmology, as well as possible explanations for that status.

Yup'ik Ontology and Human–Animal Relationships

The relational ontologies of many hunter-gatherer societies in the Arctic, and beyond, attribute personhood to (certain) animals (Bird-David 1999; Ingold 2000; Nadasdy 2007; Willerslev 2007; Brightman, Grotti, and Ulturgasheva 2012; Hill 2011, 2013; Laugrand and Oosten 2015; Laugrand and Lévesque 2017). In her now-classic work, *Boundaries and Passages: Rule and Ritual in Yup'ik Eskimo Oral Tradition*, Ann Fienup-Riordan (1994, 46–50) writes that relationships between humans and animals, their differences and similarities, provide a “master code” to the understanding of the lifeways and worldviews of people in the Arctic. YUPIIT have traditionally seen their universe undifferentiated, where humans and animals were analogically related as human and nonhuman persons. Both possessed *ella* (“awareness”) and *yua* (“personhood”) and were capable of rebirth. What made humans and animals different were their behaviours and intersubjective relations. The interaction between humans, animals, and other nonhuman persons was therefore carefully regulated and maintained.

As Laugrand and Lévesque (2017, 19) note, hunters are (and have always been) “frontline observers of a world in constant flux, and have developed considerable knowledge about animals.” Relationships between humans and animals in Yup'ik communities were traditionally seen as respect-driven and reciprocal. Animals gave themselves only to the hunters who obeyed taboos regarding both their actions and thoughts, avoided bragging, and treated animal bodies, and hence souls, properly. Every step in prey–hunter interaction, from the precise manufacture of hunting equipment to the pursuit, taking, processing, and disposing of the animal and its remains, was strictly regulated (Fienup-Riordan 1990b, 167–91; 1994, 88–142; Hill 2011, 410–12).

The differentiation of humans and nonhumans—a cultural rather than natural phenomenon (Fienup-Riordan 1994, 47)—constituted the foundation of Yup'ik social life, which reveals itself as being highly complex and governed. Boundaries between the human and nonhuman domains were permeable and constantly shifting. The rules of living and ritual activities defined these boundaries, keeping them in place or creating passages through different worlds. One of the annual communal ceremonies that opened the passageways between human and nonhuman worlds was *Kelek*.

Recorded in early ethnographies (Nelson 1899; Jacobsen 1977), *Kelek* (from *keleq*, “to invite to one’s home”) or *Itruka’ar* (from *iter*-, “to enter or come into a habitation”), also known as *Agayuyaraq* (“the way of requesting”),³ was a winter ceremony where people, through songs and dances and with the help of shamans, tried to influence the spirits of animals and other natural entities to elicit the successful harvest of fish, game, and other resources in the new subsistence season. It was “a ceremonial invitation for these spirits into the human world where they were made visible” (Fienup-Riordan 1994, 315). The shaman-helping spirits (*tuunrat*) and spirits (*yuit*, plural of *yua*) of different animals and natural resources (e.g., plants or driftwood) were revealed foremost in masks. Morrow (1984, 137) affirms that masked dances were sometimes mentioned in ethnographic accounts in connection with other ceremonies, such as the Bladder Festival (*Nakaciuq*), Messenger Feast (*Kevgiq*), Memorial Feast (*Elriq*), with masking most consistently and specifically associated with the Inviting-In Feast (*Kelek*), in which the physical manifestations of the unseen and ceremonial dramaturgy were central.

The shaman (*angalkuq*) played a key role in establishing contact with the spiritual world and making it visible during *Kelek* (Morrow 1984, 136–39). He instructed carvers on how to carve masks according to his visions and manifest the otherwise invisible into material form. Masks were carved in advance but decorated and painted just before the ceremony to become fully empowered. Other men in the village who experienced spiritual encounters in the past could also make masks to re-enact those events. The meanings of elaborate spirit masks were explained through dance motions and song lyrics. Some of the masked dances performed at *Kelek* described encounters that happened in the past, in which a *tuunraq* provided much-needed help, others narrated hoped-for future events, such as a prosperous hunt and so forth.

The liminality of *Kelek* was reinforced by several initiation customs in the community: the first catch of young hunters would be celebrated, or boys and girls would dance for the first time, and youths would use special masks (*uigturcuutet*) for “trying out” or practicing the *Kelek* dances (Morrow 1984, 137). During the feast some grotesque and humorous masks

3. See Fienup-Riordan (1996, 40, 63) for the etymology of all three names of this ceremony.

were also worn to tease cross cousins from their own or neighbouring village. “Practice” masks and humorous masks were not considered sacred, hence, were not a subject to post-ceremonial destruction like elaborate masks that were typically burned or taken away from the village and left on the tundra to rot (Fienup-Riordan 1994, 1996). These “harmless” masks, representing birds and fish, could even be given to children to play with after the ceremony (Morrow 1984, 137).

Due to the scarcity of data on precontact Yup’ik ceremonialism (Nunalleq is the only late precontact site in the Y–K Delta region that has so far yielded full-sized wooden masks), it is difficult to say if a ceremony like *Kelek* was practiced amongst the Nunalleq residents. However, the diverse assemblage of Nunalleq masks includes all the types of masks mentioned by Morrow (1984): small animal-like maskettes that could have been used as “practice” masks, a number of full-size animal spirit masks, and even some funny human-like masks possibly intended for teasing. Given the conservative nature of Yup’ik belief systems reflected in the Nunalleq assemblage, it seems probable that *Kelek/Agayuyaraq*, or a ceremonial observance much like it, was indeed practiced at the site.

Yup’ik Mask as a Model of the Universe

The first ethnographic discussions of hooped Yup’ik masks and their meanings unfold in the works of Nelson (1899) and Lantis (1946, 1947); more extensive research occurs later in Himmelheber ([1953] 1993), Ray (1967), Fitzhugh and Kaplan (1982), Sonne (1988), Wallen ([1987] 1999, 1990), and, of course, Fienup-Riordan (1987, 1994, 1996) and Meade (Meade and Fienup-Riordan 1996, 2005), who, together with Yup’ik Elders, have done a tremendous amount of work studying and recording mask-making traditions throughout the Y–K Delta.

Throughout the vast territory of the Y–K Delta, mask designs vary from one village to another, though the messages encrypted in masks through symbolism are hard to decipher without original context (dance and song). Nonetheless, there are a number of iconographic conventions—sculptural elements and painted motifs—that visually manifest different aspects of Yup’ik ontologies and constitute what can be called a *Yup’ik-style* mask (Ray 1967, 65–71; Fitzhugh and Kaplan 1982, 197, 202; Wallen 1990, 15–17). Hoops and mask attachments, very common for a great number of Yup’ik masks in Southwest Alaska, belong to this list.

Decorative appendages (*qirussiq*, pl. *qirussit*) were carved of wood or made of natural objects such as feathers, pieces of fur, or strips of sea mammal guts (Fienup-Riordan 1996, 130, 158–60). Wooden attachments were of various shapes but commonly fell into three main categories: (1) appendages of

geometric shapes, mimicking bird feathers, plants, and even puffin beaks; (2) carved human (kayakers in particular) or animal figurines; and (3) appendages shaped like different human and animal limbs (feet, flippers, wings, paws, tails, and so forth). The representations of limbs embodied the idea of literal movement as well as spiritual passage. Limb iconography can also be related to ritual dismemberment and a number of customs that involved manipulation of joints. For instance, Nelson (1988, 423) notes that hunters would cut the leg tendons of a killed animal in order to prevent its spirit from re-entering the body. Analogously, the sinew in the arms and legs of a dead person who had an evil reputation were cut to prevent the soul from returning to the body (Nelson 1988). In a personal communication with Fienup-Riordan (1987, 43), Morrow brings up more examples of marking, cutting, or binding of joints: at puberty, young women's wrists were tattooed with dots, red strings were put around infants' wrists for protection from harm, and strings were also tied around joints to prevent diseases from progressing through them.

Attachments representing animals or their parts didn't always "belong" to the animal portrayed in the main body of the mask. For instance, a fish mask could have seal flippers on the sides, or a seal mask would be decorated with waterfowl wings. Attachments were used to represent other animals and characters in the story that the mask was associated with to detail and complete a layered visual narration rather than to reconstruct the image of a single animal piece by piece.

Carved animals as attachments on the masks are commonly interpreted as visual wishes for success in hunting, directed to the spirits or representations of animals or other characters mentioned in the story told through the dance song (Wallen 1990). Similar to mask attachments, wooden carvings of animals may have decorated both the masks and dance sticks used in Yup'ik ceremonies to commemorate hunting feast. Himmelheber ([1953] 1993, 37) also noticed that animal- or limb-shaped attachments represented little helper spirits, which accompany the shaman on his journeys.

Attachments would be fixed to the mask directly,⁴ for example, to the mouth of the mask; more often, they were inserted into a bentwood hoop with the help of wooden pegs, feather quills, or baleen strips. Mask hoops could be full or partial (open at the bottom) with single, double, or even triple hoops surrounding the main body of the mask. The hoops themselves were fastened through holes along the edge of the mask with either willow bands, vegetable fibre lashing, or hide or sinew straps. Apart from the symbolic meanings, hoops and attachments had a very practical function: they tied the entire construction of the masks together. Separately carved appendages were

4. Wallen (1990, 15) reports that in the Sullivan collection of Hooper Bay masks, one of the masks consisted of sixty-four pieces when it was disassembled for shipping.

attached on flexible quills and baleen ribs that moved during the dance, making the mask appear more alive and reflecting the constant motion and dynamism of the universe.

Hoops are also crucial in understanding the meaning of Yup'ik masks. Different anthropological theories attempted to explain the nature of hoops, including a postcolonial interpretation of hoops as an imitation of halos from Christian iconography (Sonne 1988, 37). Most scholars, however, agree that hoops refer to different layers of Yup'ik universe (Himmelheber [1953] 1993; Fitzhugh and Kaplan 1982; Fienup-Riordan 1987; Wallen 1990). This origin is also supported linguistically, as the Yup'ik word for hoop is *ellanguaq*, which means “pretend universe” or “model universe” (Fienup-Riordan 1987, 47). Every hoop stands for one of the universe's layers or worlds above and below us.

The multilayered Yup'ik universe comprised underwater, sky, and land worlds. Sea mammals were believed to live in underwater villages, while terrestrial animals originated in the skyland (Fienup-Riordan 1994, 116, 262). To request animal spirits to return to the human world, shamans could journey to the underworld through a hole in the ice or crawl up to the sky through star holes.

The entire structure of the Yup'ik mask is a universe in miniature. As an encircled centre, a mask design can be viewed as another manifestation of *ellam iinga* (“the eye of awareness”) commonly expressed in Yup'ik iconography as “circle and dot” motif (Fienup-Riordan 1987, 43). The circle and dot design connotes spiritual vision as well as transformation and movement between the worlds. The hooped mask, the eye of the dance, worn at the ceremonies—when a hunter transformed into the hunted—looked beyond this world and allowed the passage into the other worlds that the hunter depended on (Fienup-Riordan 1987, 51). The circle and dot motif is found on many precontact Nunalleq jewellery pieces, especially ivory earrings and the decorative elements of bentwood hats, attesting that Nunalleq residents knew this ancient design well.

Lynn A. Wallen (1990) suggests that the stylistic features on Yup'ik masks have many parallels in the natural world. This theory of natural imagery assumes that every mask maker “draws upon the artistic traditions and conventions of his culture, but for the origin of these conventions and for innovation within those traditions, we might look to nature” (Wallen 1990, 18). Consciously or subconsciously, artists create designs that are drawn from the shapes and forms in their environment and that have imprinted themselves in their minds.

One example is the motif of black goggles painted around the eyes of the masks representing spirits, in some cases, sea mammals, especially seals. Drawn with charcoal or soot, this element is commonly interpreted symbolically as a protective barrier between the human and spirit worlds

(Morrow 1984, 122; Wallen 1990, 17). Spectacled faces abound in the Yukon–Kuskokwim region: spectacled eider, common eider, short-eared owl are just a few examples of species with encircled lines, or shaded or masked eyes (Wallen 1990, 18). Analogically, the “eye of awareness” could have been inspired by natural images such as rings on the water left by a diving animal, or phenomena such as the sundog or moon dogs common in Arctic skies.

To sum up, the design and iconography of Yup’ik masks, with all the details attached to them, can be perceived and interpreted both through cultural conventions and in people’s everyday encounters with natural entities and events. Studying masks and mask attachments recovered from the site can, therefore, shed light on the ritual activities and ceremonial conventions of Nunalleq residents, as well as their perceptions of surrounding environment and interactions with the animals who inhabit it.

Animals at Nunalleq: Represented and Hunted

So far, the Nunalleq site has produced over two hundred masks and mask fragments; these include fifteen full-size masks and numerous small- or medium-sized maskettes (Mossolova and Knecht 2019). The full-sized masks measure between 20 and 25 cm in height, and around 15 cm in width, and are large enough to cover the face of an adult; most of the maskettes are from 9 to 15 cm. All masks, as well as masks attachments, were made out of driftwood, primarily softwoods (probably conifers), with the help of carving tools. The distinctive carving-tool marks on the back sides of masks indicate that beaver incisors, and occasionally molars, were used for the carving of larger masks, while the smaller maskettes were carved using either beaver or muskrat incisors. The outer surfaces of masks were polished with pumice. The traces of red ochre, black, and white pigments are still visible on many masks in the collection. Some masks have eyebrows, mustaches, and other facial features drawn in black pigment, presumably charcoal or lamp soot.

Maskettes and mask attachments were recovered from Nunalleq, found scattered throughout the sod house complex, especially along and under interior boardwalks and passages into side rooms. The provenance and deposition of full-sized masks at the site, however, reveals certain patterns (Mossolova and Knecht 2019, 35). Most of the full-sized masks associated with the earlier occupation period of the site (ca. AD 1570–1630) were recovered from the liminal zones of the sod house: a seal mask (Figure 2) was found inserted upside down into a post hole by an entryway; an owl mask (Figure 3) was unearthed from under floorboards; others were found hidden in the walls or between boards of an entryway. The first several generations of Nunalleq residents apparently used masks to spiritually protect important architectural structures of the house. The disposition and treatment of masks after their use seems to have evolved over time, as during the later occupation phase

(ca. AD 1620–1675) masks were disposed of outdoors. Most full-sized masks were recovered in fragments; two masks were recovered from a trash pit located some nine metres from the northern edge of the house; another (walrus transformation) was recovered from outside the later house in a trash disposal area (Mossolova and Knecht 2019, 26) (all three in Figure 4).



Figure 2. Seal mask recovered from a post hole in the earlier house at the site, c. AD 1570–1630.



Figure 3. Owl-like mask with missing beak recovered from under a boardwalk within the earlier house, c. AD 1570–1630.



Figure 4. Three full-sized human-animal transformation masks recovered in association with the later house, c. AD 1620–1675.

Out of fifteen full-sized masks⁵ recovered at Nunalleq to this date, one portrays a human, two depict supernatural beings, and eleven represent animals (or animal spirits)—seals, walrus, caribou, wolves, and birds, owls in particular. The imagery of animals represented by the full-sized masks is expanded when we consider the much larger number of smaller-scale maskettes. Many miniature masks from Nunalleq copy the designs of full-sized masks (Figure 5), suggesting that young carvers might have practiced their skills by crafting smaller replicas of established styles (Mossolova and Knecht 2019, 23). The iconography of animals and their spirits runs the gamut from the realistic to the surreal and stylized. Oftentimes, animals were portrayed in masks and maskettes featuring labrets and other status accessories typically worn by Nunalleq residents themselves, which implies that nonhuman persons and humans were socially linked and ontologically related (Mossolova and Knecht 2019, 35).



Figure 5. Three owl maskettes of different sizes, c. AD 1620–1675.

The Nunalleq mask attachments also abound in animal designs. The number of mask decorations—including attachments typically inserted to a mask or hoop with a wooden pegs and numerous geometric bangles, usually suspended from a mask/hoop on a thread—identified so far in the Nunalleq collection is circa five hundred pieces. Approximately one-quarter of these are attachments shaped as animals and animal body parts, such as wings, fins, flippers, ears, tusks, and beaks (Figures 6 and 7). The size of animal attachment varies: some are no bigger than a couple of centimetres, others are as long as 25 cm (Figure 8), which suggests that there might have been masks at

5. See the detailed table of full-sized Nunalleq masks in Mossolova and Knecht (2019, 29–30).

Nunalleq substantially larger than the ones recovered so far (Mossolova and Knecht 2019, 22).



Figure 6. Mask attachments in the form of seal flippers.



Figure 7. Bird beaks that used to be attached to masks.

Animal attachments are distinguished from other wooden animal figurines recovered from the site by the presence of holes and/or pegs for attachment (Figure 9). Caribou attachments also have holes on the head where antlers used to be installed; holes on the side of bird attachments (Figure 10) indicate that many were depicted with wings (possibly in the form of actual bird feathers). The overall design and iconography of attachments, as well as these tiny details, make it possible to distinguish between the different animals represented in attachments, sometimes to the species level.



Figure 8. Large animal attachments (from top to bottom): bird, caribou, seal, and fish.



Figure 9. Fish attachment with a wooden peg for attachment still intact.



Figure 10. Bird attachments featuring holes on both sides for wing attachment.

Seals (Figure 11) are the most common animal attachments, exceeding the numbers of all other animal attachments put together (59%, see Figure 12). Seals are also abundantly represented in masks and maskettes, which suggests their crucial economic and cultural value for Nunalleq residents. According to zooarchaeological (Masson-MacLean 2018; Masson-MacLean et al. 2019) and isotopic (Britton et al. 2013; Britton et al. 2018) data from the site, seals were one of the most important contributors to the diet (ca. 18.6% of total dietary protein), providing the Nunalleq community with meat, blubber, oil, and hide.



Figure 11. Seal attachments of various sizes.

Represented both in masks and mask attachments, bird species (13%, see Figure 12) also seem to have been highly important at Nunalleq. While owls are the most common bird species portrayed in maskettes and masks, waterfowls and seabirds (e.g., eider ducks, geese, murrelets) dominate among the bird-shaped attachments. Bird remains are present in the faunal assemblage at the site; however, based on Number of Identified Specimens (NISP), meat weights and isotope data, birds appear to have only marginally contributed to the diet, though they may have been important in times of food scarcity (Britton et al. 2018; Masson-MacLean 2018, 248; Masson-MacLean et al. 2019). Bird bones were used for awls and needles, and feathers were used to fletch the abundant arrows and darts found at the site.

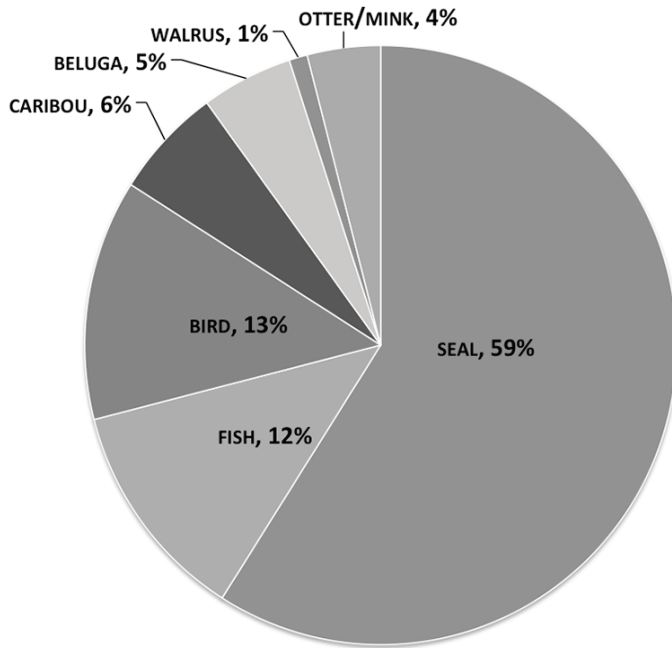


Figure 12. Animals represented by mask attachments in the 2009-2018 Nunalleq assemblage.

Although the site has not yet produced any fish masks, fish-shaped attachments of various sizes are common in the collection (12%). Among the fish attachments, salmonids seem to dominate, which is not surprising considering that the Nunalleq site is located between two salmon rivers. The importance of salmon to the site's economy is confirmed both by NISP (27.9%

total NISP, see Table 1) and the isotope mixing model that ranks contribution of salmon to total dietary protein first above all other resources—the mean contribution of salmon to dietary protein was approximately 48 per cent, which is, in fact, very similar to the contribution of salmon to modern Yup'ik subsistence harvests (Britton et al. 2018). Thus, salmon was amongst the most important subsistence resources at Nunalleq, consumed not only fresh but also stored dried (Masson-MacLean 2018, 236–37; Masson-MacLean et al. 2019). More elongated, toothy, non-salmon fish designs also feature in the collection and, according to Quinhagak Elders, may represent northern pike.

As with fish, depictions of beluga whale are absent in masks, but well represented among the mask attachments. Inversely, while often depicted in masks, walrus are almost nonexistent in the assemblage of animal attachments. Although both of these marine mammals were hunted and exploited at Nunalleq—according to the isotopic study (Britton et al. 2018) cetacean meat significantly contributed to the diet (22.8%), while the ubiquity of ornate as well as utilitarian objects of walrus ivory attest to its extensive use as a valuable raw material—their remains at the site are far less frequent than seals. This may be related to the butchery practices used for large marine mammals, which might have been processed at the kill site (Betts 2016; Masson-MacLean 2018, 250; Masson-MacLean et al. 2019), or to certain taboos related to disposal of their bones in a manner meant to show respect, such as return to the water or burial in a designated pit distant from human living areas (Hill 2013, 125).⁶

Table 1. Representation of the different resources in the Nunalleq faunal assemblage (Number of Identified Specimens, NISP).

| Resource category | NISP | % |
|---------------------------|------|--------|
| Fish | 2586 | 27.9% |
| Seals | 2341 | 25.2% |
| Caribou | 1593 | 17.2% |
| Domestic dog | 1567 | 16.9% |
| Birds | 646 | 7.0% |
| Other terrestrial mammals | 249 | 2.7% |
| Other marine mammals | 159 | 1.7% |
| Molluscs | 132 | 1.4% |
| Total | 9273 | 100.0% |

6. Detailed discussion on walrus-focused rites around Bering Strait see in Hill (2017).

Representations of terrestrial animals are relatively rare compared to marine fauna in the Nunalleq assemblage, despite caribou being an integral part of subsistence strategies at the site and the occasional use of small fur-bearing mammals (Masson-MacLean et al. 2019). Bear remains are extremely rare in the faunal record, suggesting they were marginal to the subsistence economy. This may explain why bears—commonly featured in the other Indigenous ontologies in Arctic and Subarctic (e.g., Hallowell 1926; Ingold 2000)—are not so far represented in the Nunalleq artefact assemblage. Caribou, wolves, and otters (or other mustelids) seem to be the only terrestrial mammals carved as masks and/or mask attachments.



Figure 13. Caribou mask recovered from basal deposits, 16th century or earlier.

The representations of caribou are rather marginal in mask attachments, but caribou imagery in masks is quite frequent. In fact, the oldest mask recovered from the site represents a smiling caribou (Figure 13). Isotope analysis of human hair from Nunalleq suggests that, while seasonally hunted on the tundra, caribou did not contribute as much to the diet at Nunalleq as salmon and marine mammals—an approximate mean of just 9 per cent of total dietary protein (Britton et al. 2018). The isotopic data is echoed by meat weight estimates indicating that caribou provided just under 15% of non-fish meat (Masson-MacLean et al. 2019). Caribou was, however, extremely valued as a raw material (Britton et al. 2013, 456; Masson MacLean 2018, 241; Masson-MacLean et al. 2019; see Figure 16). Caribou bone and antler, including naturally shed antler, were used extensively for making hunting tools,

particularly harpoons, which suggests the crucial role of caribou in the coastal exploitation of marine mammals (Hodgetts 2010; Masson-MacLean 2018; Houmard et al. this volume).

There is no evidence of wolf-shaped attachments, despite their rich manifestation in masks and maskettes, especially from the latest occupation phase (Figure 15). Wolves were clearly not part of Nunalleq subsistence, but were nonetheless spiritually important to the Nunalleq residents.⁷

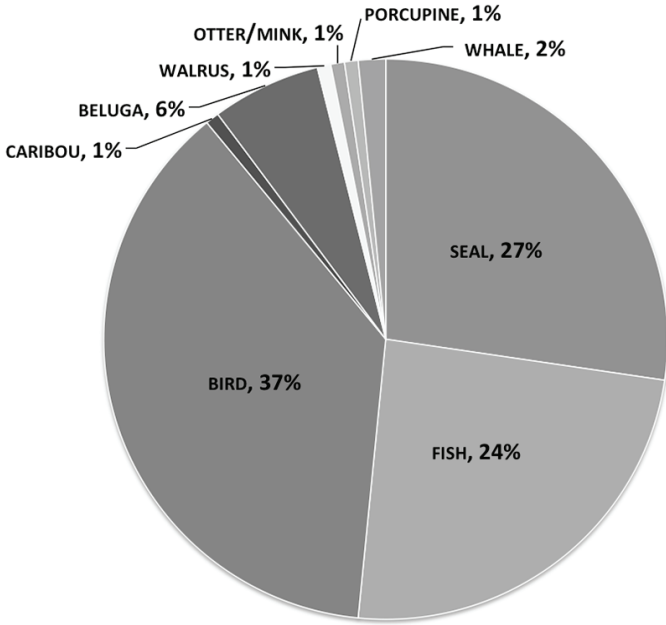


Figure 14. Animal figurines in the 2009-2018 Nunalleq assemblage.

Animals were represented in animal figurines (Figure 14) as well as in mask attachments at Nunalleq. Animal effigies apparently had multiple functions and were used as amulets, charms, lures, and toys. Animal carvings in Inuit cultures, as Ingold (2000, 126) suggests, are tiny embodiments of hunters' thoughts. Carving and carrying animal figurines is a way of keeping the animals in mind. The proportions of different animals represented in figurines of various materials (wood, ivory, tooth) are quite similar to those seen on mask attachments, with one exception: among the wooden figurines, birds outnumber fish and are as common as seals. Bird figurines cover a wide

7. The same holds true for owls.

range of species; in addition to seabirds and waterfowls, there are owls, ptarmigans, and other inland birds.



Figure 15. Mask and maskettes of different size representing wolves, c. AD 1620–1675.

In summary, previous research on the reconstruction of subsistence strategies (Britton et al. 2013; Masson-MacLean 2018; Masson-MacLean et al. 2019) revealed that the Nunalleq residents relied on three major resources: salmon, marine mammals (mainly seals), and caribou. Birds and small terrestrial mammals supplemented their subsistence as secondary resources. The frequency of the representations of these various animals in masks and/or mask attachments from the site attests to their relative importance not only for subsistence but also the social and ceremonial life of the Nunalleq community (Figure 16). Although the economic and symbolic rankings of animals seem to be similar, the relational modes between humans and some animals at Nunalleq extend beyond the utilitarian domain.

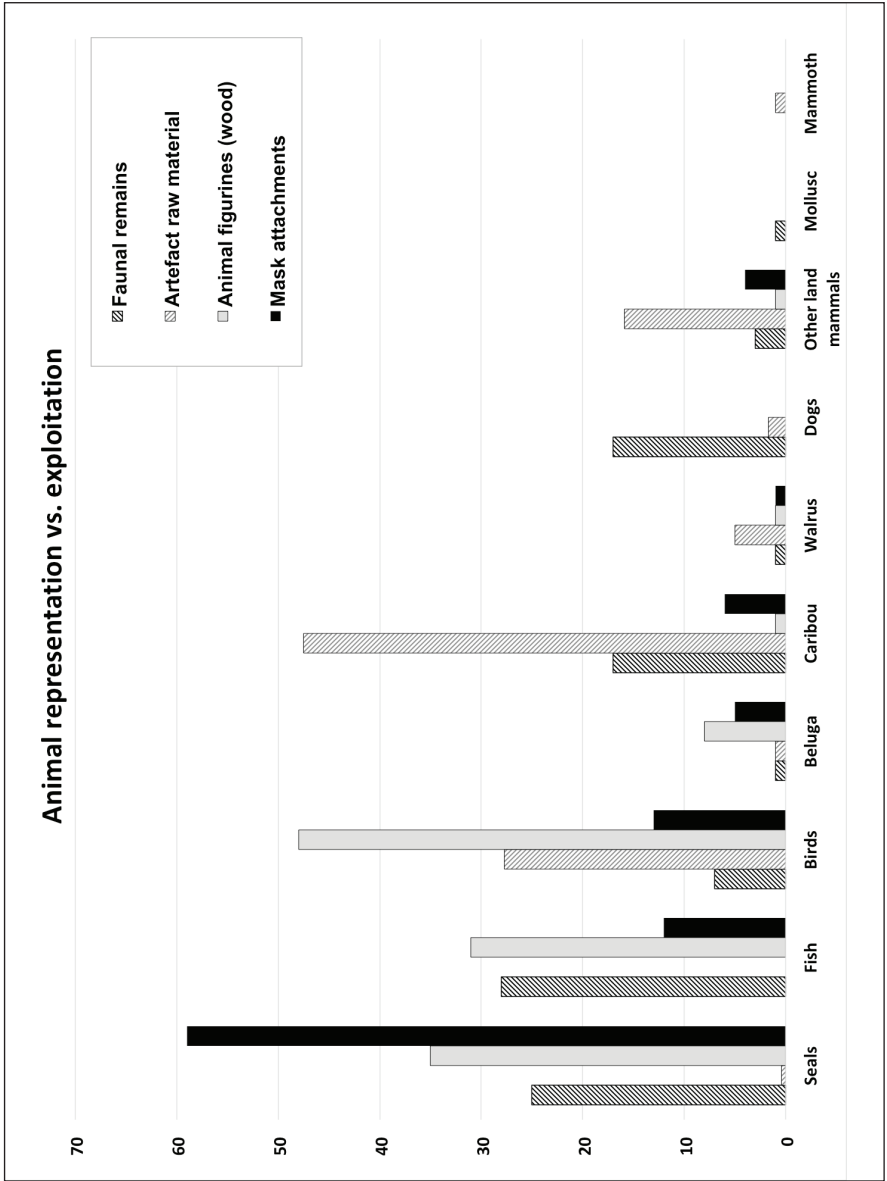


Figure 16. Percentage of animals represented in mask attachments and figurines (2009-2018 assemblages) and animals present in faunal remains and raw materials (2009-2015 assemblages) at the Nunalleq site.

Discussion

In the Indigenous ontologies in the Arctic, it is often the case that not all animals are perceived as other-than-human persons, and not all individuals within a certain kind of animal group are persons. Ultimately, it is social (inter)actions that define an animate being as a person (Hill 2011, 2013). The frequency of representations of certain species in mask and mask attachments at Nunalleq, as well as the presence of some animals in mask iconography and their simultaneous absence in mask attachments, and vice versa, suggests that different species might have had different roles and positions in cosmology.

To start with, the position of domesticates strikingly contrasts to the ones of wild animals. Domestic dogs (16.7%) are one of the four major components of the faunal assemblage (see Table 1). However, despite the evident utilitarian importance of dogs in traction and hunting, bone implements, and as a readily available source of protein in times of need (Park 1987; Hill 2019; Masson-MacLean, McManus-Fry, and Britton 2020), they are absolutely nonexistent in the iconography of Nunalleq masks.⁸ The non-inclusion of domestic dogs in the symbolic imagery might be explained by differences between domestic and wild animals. These human companions occupied the same living space and shared the same food as humans, which made them part of the human domain more than any other species. Domestic dogs were apparently the only species that people had a control over. As a fallback resource, dogs, unlike hunted animals, could be acquired throughout the year with minimum effort.

Domestication could presumably be the reason for the nonexistence of dogs in the symbolic imagery at Nunalleq. Yet this does not negate the social and possibly even spiritual value of dogs in Yup'ik prehistory. As Hill (2019, 96) observes, “in northern and western Alaska, as in Arctic Canada, dogs appear to have occupied an ambiguous ontological position during the protohistoric and early historic periods,” having strong association with the realms of illness, healing, and death. Although the ethnographic accounts vary—for example, Lantis (1953, 133) reports that according to Nunivak beliefs, dogs were the only animal that did not have a soul, while Nelson (1899, 429) mentions a shaman who was aided by his helping spirit that had taken the form of a dog—dogs, in fact, feature in many traditional Yup'ik tales and rituals.⁹ In some, they even act as mediators between the world of the living and the dead. During *Elriq* (Memorial Feast), dogs were

8. There is no representation of dogs amongst other art forms either (Masson-MacLean et al. 2019).

9. For instance, there is the legendary “Dog Husband” story, in which a woman married a dog and had pups who had human minds (Fienup-Riordan 1983, 236–38).

allowed to eat food offerings meant for the dead so the deceased could be fed through the dogs (Fienup-Riordan 1994, 240). The dog village was also the first place that the shades of the deceased passed on their way to the land of the dead (Fienup-Riordan 1994, 240, 276).

With a notable exception of dogs, animals that contributed to the subsistence economy of Nunalleq residents were largely represented by mask attachments—fish, beluga, seals, caribou, seabirds, and waterfowl. Some might also have had an additional symbolic value. Birds, for instance, might be assigned strong cultural connotations related to the hunter's symbolic transformations during the seal hunt. Ethnographically documented Yup'ik oral histories (Fienup-Riordan 1990a) explain that the hunter—moving in kayak over the surface of the water and wearing a bentwood visor—usually appeared as a seabird in the eyes of the seals he sought. Birds, with their ability to fly, swim, and dive, can cross boundaries between land and sea and mediate between the hunter and the hunted (Fienup-Riordan 1990a, 36).

Fish, despite being a crucial contributor to the diet based on number of specimens (Table 2) and isotope data (Britton et al. 2018), seem to have received the least care of any ontologically significant animals at Nunalleq ceremonies. “Only fish seemed to be oblivious to human treatment and since their numbers do not diminish or fluctuate greatly, people feel less inclined to give them special attention in stories and ceremonies called for in the case of land and sea mammals and birds,” explain Fitzhugh and Kaplan (1982, 108).¹⁰ This statement, however, has been questioned by oral histories documented in the recently published *Akulmiut Neqait/Fish and Food of the Akulmiut* (Fienup-Riordan, Meade, and Rearden 2019), reassuring us that everything possesses awareness, even a fish. Hence, also fish require proper care: “fish observe their treatment and respond accordingly” (Fienup-Riordan, Meade, and Rearden 2019, 82). As other animals, fish also know if people break any abstinence rules, and do not come around then (Fienup-Riordan, Meade, and Rearden 2019, 400). The imagery of fish in the ceremonial paraphernalia at Nunalleq site, along with the complexity of fish–human relationships in a precontact Yup'ik community deserve further study.

Unlike attachments, the Nunalleq masks and maskettes portray animals that had a less utilitarian and more pronounced spiritual association, such as wolves or owls. In this regard, the somewhat lesser dietary importance of caribou perhaps is the key to explaining its more frequent and vivid imagery in masks compared to its relatively low representation in mask attachments, which seem to be preoccupied mostly with the species most central to the diet of Nunalleq residents.

10. Fish-shaped masks (depicting predominantly either king salmon or northern pike) are present in ethnographic Yup'ik mask collections, but, indeed, perhaps less frequently than other animals.

Seals hold an exceptional position, being extensively manifested both in masks and mask attachments, but also in animal figurines and on utilitarian tools like tool handles. Moreover, seal faces are carved on wooden labrets, a status and self-identification related accessory, which implies that some Nunalleq families might have associated themselves with seals, probably bearded seals, judging by the more detailed labrets.

Ethnographic accounts attest to the high symbolic position of seals in Yup'ik ontology. Yup'ik lore prominently features stories (*qulirat*, traditional tales) describing how Yupiit relate to seal kinship, and how seals behave in ways similar to humans. The story of the boy who went to live with the seals is probably the most iconic one of them, describing a journey of a boy who travels underwater to the seals' home to learn their lifeways (Fienup-Riordan 1983, 177–81; 1990a, 24–25; 1994, 3–4). Seals appear to him as persons whose social structure is hierarchical and resembles the human community. Spotted, harbour, and bearded seals looked and behaved differently and occupied different locations in their *qasqig* (communal men's house) in accordance with their ranks. An adult bearded seal¹¹—the top-ranked species in terms of cultural preference—taught the boy how to look at the world and humans' activities (hunting as well as pre- and post-hunting rituals) from the seals' point of view. The boy undergoes a training to become a good hunter under the mentorship of his prey.

This story begins and ends at the Bladder Festival (*Nakaciuq*), an annual celebration, in which the bladders (the anatomical locus of sea mammals' souls) of the seals killed in the current harvesting years were returned to the sea. In this way, the seals who visited the human world and were hosted in a respectful manner were released back to their home so they could return in the following season (Fienup-Riordan 1994, 7).

Beyond bladders, bones of sea mammals were also treated with respect, typically by being buried, burned, or returned to the sea (Fienup-Riordan 1994, 107). At this point, there is no direct evidence that similar observances with regards to animal bones took place at Nunalleq; however, seal bones recovered from the site were usually not modified for tool manufacture, despite their availability in large quantities (Masson-MacLean 2018, 211).

Not only seals had an exceptional standing in the symbolic ranking at Nunalleq. Wolves, whose remains are marginal at the site (eleven bones out of approximate twelve thousand), are extensively and vividly depicted in the Nunalleq masks of various sizes. The fact that wolves were not hunted at Nunalleq may explain why they were depicted in masks but not in mask attachments, which seem to be focused primarily on the depiction of prey

11. Sonne (2017) details the special significance of the bearded seal in rituals and myths across the Arctic.

animals. As predators, wolves were admired and some wolf-like characteristics were desirable in a human. Wolf was the only large land animal on the coast for which strict proscriptions governing the care of its carcass existed analogously to sea mammals (as recalled by Elders in Fienup-Riordan 1994, 115). A dead wolf was treated just like a dead person, as wolves were once human, Elders say.¹² According to oral history from people in Quinhagak, the people of Nunalleq once called themselves “people of the wolf” to underscore their proficiency as fierce warriors (Mossolova and Knecht 2019, 23).

The rise of extraordinary wolf iconography, as well as the shift from the centrality of prey animals (seals especially) to the depiction of non-utilitarian animals of high cultural value in general, apparently took place after the re-occupation of the site in the early 1600s—a time of many economic and social changes in the community in Y–K Delta, as well as one of climate change (the Little Ice Age) and an intensified inter-village conflict. If the earlier Nunalleq masks are characterized predominantly by fairly realistic depictions of animals, the later mask imagery seems to become more surreal and transformative. Human- and wolf-like features are smoothly blended into one face.

Human–animal hybridity in mask iconography underpins the permeability of ontological borders in Yup’ik cosmology. The examples of encounters with the in-between species, half-creatures like wolf-, bird-, walrus-, and seal-people, or other extraordinary persons are eloquently accounted in Yup’ik mythology (Nelson 1899; Lantis 1953; Fitzhugh and Kaplan 1982; Fienup-Riordan 1994, 1996). Transformation is natural and integral to the Yup’ik worldview. Animals can transform into humans or other animals (e.g., wolves to belugas and vice versa) as they please by raising their beak or snout like raising a mask, or peeling off their skin as taking off a coat (Nelson 1899, 394, 425; Lantis 1953, 133–34). Ultimately, there can be no certainty about the true identity of anyone. As Carpenter (1973, 283–84) puts it, “the lines between species and classes, even between man and animal, are lines of fusion, not fission, and nothing has a single, invariable shape.”

The need for social and symbolic transformations perpetually existed also in the peoples’ community and was physically manifested through dances and masks during communal ceremonies. Any mask is a transformation mask as it turns one into another being. A mask portraying human–animal or animal–animal transformation is, in this sense, an especially intensified and

12. The ontological connections between sea mammals and wolves (and humans) may also be supported by another belief widely held in the Y–K Delta that wolves are the terrestrial manifestations of belugas, who are also very similar to human persons, especially in their ability to hunt on land when transformed into wolves (Fienup-Riordan 1994, 75, 111). Quinhagak Elders assure that when there is not enough food on the sea, belugas transform into wolves and go hunting on the land, and vice versa (Mossolova and Knecht 2019).

expressive manifestation of conversion. The transformation motifs in mask imagery seem to become more frequent and intensified at the later stage of Nunalleq occupation, possibly reflecting the climatic and social dynamics underway that influenced human–animal interactions in both utilitarian and non-utilitarian ways.

Conclusion

The existence of a well-developed masking tradition at precontact Nunalleq is evidenced by its rich material culture assemblage. Extensive animal imagery of Nunalleq masks, maskettes, and mask attachments affirms that animals were not only economically but also culturally central to the lives of prehistoric Nunalleq residents.

The imagery of attachments literally surrounding the mask and figuratively supporting the narrative seems to be mostly concerned with the depiction of prey animals—salmon, seals, beluga, caribou, birds, and some small terrestrial mammals—and reflects precisely the subsistence strategies of Nunalleq residents. The iconography and symbolism of mask attachments is very similar to other wooden animal figurines and dance sticks, which were also used to tell the story of a successful hunt that occurred in the past and/or the wish for one in the future. Masks and maskettes, on the contrary, tend to depict animals with high symbolic value: seals, walrus, wolves, owls, and other birds. These animals held a central position in the Nunalleq lore and cosmology, although not all played major roles in the Nunalleq subsistence.

Seal imagery predominates in both Nunalleq masks and mask attachments, attesting to their high economic and symbolic significance for this coastal community, which depended heavily on seal hunting and the exploitation of marine resources in general. The extensive representation of some other animals can, in fact, be directly or metaphorically linked to the exploitation of seals and other marine mammals. Caribou antlers, for example, provided crucial raw material for manufacturing hunting tools; and birds, as they accompanied sea hunters, were perceived as hunters' symbolic counterparts.

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