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## PEOPLE AND SEALS AT SIBERIA'S LAKE BAIKAL

Tatiana Nomokonova, Robert J. Losey, Vera N. Iakunaeva,  
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*The seals inhabiting Eastern Siberia's Lake Baikal are involved in a suite of meaningful relationships with local people both in the present and in the distant past. Most people rarely see the seals in their natural habitat, but these animals nonetheless are considered icons of the region, particularly among tourists and the broader general public. Our recent interviews with Baikal seal hunters, most of whom are Buriat, revealed relationships of great depth and intimacy with these animals that involved, in part, knowing the animals based on their sounds, smells, taste, fur quality, appearance, and behavior. The hunters and their families maintain relationships with the animals by acting so as to stay in good standing with local spirits and through proper treatment of the animals' bodies after death. Further, Baikal seals have prominent roles in local cosmologies and legends, including the origin stories of some local groups. The region's archaeological record reveals that meaningful relationships with seals extend far back in time, including among ancient foraging groups, some of whom made representations of seals 7,000-8,000 years ago. Humans' long-standing relationships with seals at Lake Baikal cannot be viewed simply as interactions between predator and prey, or consumer and commodity.*

**Key words:** *Baikal seals, Buriat sealing, Lake Baikal, Siberia*

На побережье озера Байкал в Восточной Сибири, взаимоотношения населения с байкальской нерпой имеют глубокие корни в прошлом и значат многое в настоящем. Для большинства людей увидеть нерпу в их окружающей среде предоставляется редко, но тем не менее это животное считается символом и эмблемой байкальского региона для туристов и местного населения. В наших интервью с байкальскими охотниками на нерпу, большинство из которых буряты, просматриваются интересные отношения к нерпам, показывающие глубокие знания об этих животных по звукам, запаху, вкусу мяса и жира, состоянию шерсти, внешним и поведенческим характеристикам. Охотники и их семьи поддерживают отношения с нерпами через хорошие связи с местными духами и правильное обращение с тушами животных после охоты. Более того, байкальские нерпы занимают особое место в мировоззрении, местных историях и легенде о начале одного из бурятских родов. Археологические данные в регионе демонстрируют, что отношения с нерпами имеют глубокой прошлое, включая охотников-рыболовов региона, которые начали изображать нерпу на скальных писаницах и вырезать их фигурки из кости и камня более 7000 л.н., показывая что нерпа не просто источник питания и объект обмена и

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торговли, а животное с важной ролью в мировоззрении байкальского населения в прошлом и настоящем.

*“You know... I grew up on nerpa<sup>1</sup>. I cannot be without it. I am myself from Baikal” –Seal hunter’s daughter from the Ol’khon region (Afanas’eva-Medvedeva 2007, Vol. 1: 404).*

### Introduction

Seals and other marine mammals are closely linked to the economic and social well-being of many northern societies. Such animals also have been described as important agents in the interconnection of landscapes, ecological knowledge and skills, and worldviews in a number of settings (e.g., Balikci 1970; Boas 1888; Bogoras 1904–1909; Edlund 2004; Juel 1945; Nelson 1969; Nuttall 1992; Ohtsuka 1994; Pelly 2001). Further, human interactions with sea mammals have helped to shape northern cosmologies and are part of the long-term and ongoing processes of identity formation across much of the circumpolar north. In this paper, we describe some of the ways in which Baikal seals (*Phoca sibirica* Gmelin) are entangled with aspects of society and culture far beyond economy and diet, both in modern times and in the distant past. These entanglements have rarely been highlighted in the literature on the use of these animals, which has largely portrayed the seals as being important to humans only as food items or commodities.

Baikal seals are the only pinniped species that live wholly in freshwater, inhabiting Russia’s Lake Baikal in Eastern Siberia (Figure 1). These animals have a long archaeological history of interaction with humans, but this history is most often portrayed in a narrow way, with the primary research topics emphasized in the literature being seasonality of hunting and animal choice (Goriunova et al. 2007; Nomokonova 2011; Weber et al. 1993, 1998, 2011). This research has established that the seals were first utilized by foraging groups living on the shores of Lake Baikal just over 9,000 years ago and that they continued to be exploited thereafter by local populations, including the early pastoralists who first migrated to the region around 3,500 years ago (Nomokonova 2011). However, a broader examination of the region’s archaeological past reveals that even these meagre material traces provide evidence of deeper relationships between people and seals, even at locations far from where seals were actually procured.

Seal use has continued at Lake Baikal since these earlier periods, including hunting in historic times by Evenk, Buriat, and some Russian settlers. Historic accounts from the 17<sup>th</sup> to the beginning of the 20<sup>th</sup> century typically report that Baikal seals became the focus of industrial hunting, in part due to the animals’ furs becoming fashionable for use in clothing. In addition, seal blubber was in high demand for use in tanning, gold mining, and other industries during these periods and well into the 20<sup>th</sup> century (Georgi 1777; Kulakov 1898; Levin 1897; Pallas 1788; Pastukhov 1993; Zhambalova 1984, 2000).



Figure 1. Study area: a. Lake Baikal, Russian Federation; b. archaeological sites and modern towns and cities.

Seal hunting and use at Lake Baikal remain living traditions. Since 2009, we have conducted interviews with 11 Baikal seal hunters as well as the wife of one of these individuals. Most hunters were interviewed only once, while the remaining few were repeatedly consulted over the previous three years of fieldwork. These hunters and their families are mostly Buriat from settlements on the central west shore of Lake Baikal. The Buriat hunters interviewed from Elantsy and the surrounding area (Figure 1) are: V. Khagutov, Z. Khagutova, M. Gavrilov, A. Dmitriev, and two anonymous individuals from Elantsy; A. Bedogaev, A. Arganov, and A. Kharutov from Shara-Tagot; and one anonymous hunter from Onguren. Two of the hunters interviewed are Russian, namely A. Burmeistr from Irkutsk and M. Sarin from Kurbulik, and one, R. Gurka, who originally resided in Severobaikal'sk, is Evenk. The age of interviewees varies from 43 to 76 years, with most of the oldest hunters having

more years of sealing experience. Some individuals have sealed on the lake continuously since around 14 years of age. The remainder were involved in occasional sealing over their lives, with the average range of sealing experience being 10–15 years. During the interviews, we primarily questioned hunters regarding their perceptions of, and engagements with, Baikal seals. The hunters' responses revealed that seals are an integrated part of local people's traditions, knowledge, skills, and sensory experiences, and one of the mediums through which people relate to the lake itself.

We begin by outlining the basic life cycle of Baikal seals, and then briefly describe how these animals are experienced by the local public and tourists visiting the region. We then detail how seals are categorized, named, and described by local hunters, which reveals some of the ways in which these animals are intimately known and experienced. Following this, we describe how seals figure in local cosmologies, and how they interlink people with the landscape. We then review the archaeological record of seal representations in this region, which provides an indication of the broader cultural importance of these animals among the ancient societies of the Baikal region.

### Biological Description of *Phoca sibirica*

Baikal seals share life cycle and behavioral patterns with other small northern ice-adapted pinniped species. They are most genetically and morphologically similar to the ringed seal (*Phoca hispida* Schreber), an arctic species (Amano et al. 2000; Pastukhov 1993). The Baikal seal population historically numbers up to 104,000 animals, which are found only within Lake Baikal, with some notable exceptions. Single individuals have been seen during summer and fall in lagoons connected to the lake and as far as 400 km from the lake along its tributaries. Baikal seals grow up to 1.8 m in length and 130 kg in weight, with the males tending to be slightly larger than the females (Petrov 2009). Pups are born with white fur, changing within a two-month period to a silver-grey color, which is retained throughout adulthood. The seals are fish-eaters, consuming primarily golomianka (*Comephorus dybowskii* Korotneff and *C. baicalensis* Pallas) and pelagic sculpins (mainly *Cottocomephorus* and *Paracottus* species), but they also eat some bottom sculpins, pelagic salmonids, and littoral fish (Pastukhov 1993).

For Baikal seals, the ice regime is a crucial ecological factor, as it affects in various ways their life history processes. Lake Baikal freezes completely from January to mid-May, and seals during this period distribute themselves unevenly across the lake. Just prior to freeze-over, females concentrate mainly in the deep open waters. When these regions of the lake are ice-covered, the females form dens within the ice and snow that are used as birthing areas for their pups. Adult males and juveniles try to extend their open-water feeding period as much as possible just before ice formation, and concentrate in areas that are ice-free. After the lake is ice-covered, the adult males are more commonly found on the ice over the deeper portions of the lake, while the juveniles are more common nearer the shoreline. During the ice-cover period, seals separate from each other, with the spacing between their breathing holes and dens typically being greater than



Figure 2. Seal aggregations: a.) on ice in spring; b.) on small rock islands in summer (V.V. Pastukhov's Family Archive, 1961–1979).

100 m. Birthing usually starts at the end of February and lasts through the beginning of April. The seal pups cannot swim until they are around two months old, and depend totally on their mother's milk. Lactation lasts approximately 2.5 months, partially overlapping with the mating period (Pastukhov 1993). Female seals reach sexual maturity between the ages of two to five years, while males achieve maturity between five and eight years of age. Mating occurs in the water, mainly in the first half of April, with pregnancy lasting 11 months.

In April, with warmer weather, breathing holes increase in size and leads (i.e., fractures) in the ice become more prevalent. At this time, seals lose up to 30% of their weight and begin to bask in the sun on the ice and moult (Figure 2a). During the ice break-up period in spring, from the second half of May until the end of June, the animals continue moulting and start to form aggregations of different densities on the remnant floating ice patches. In the summer, the animals can be found everywhere in the lake (but generally avoid its shallower sections) and in aggregations on the rocky shorelines and islands (Figure 2b), some consisting of a few thousand individuals. In fall, they start to migrate to the north end of the lake to take advantage of the early forming ice that acts as a safer resting platform than the shoreline. The seals sometimes form large groups on this first thin ice, or resort to using the shoreline as they wait for the ice to form. By January, they disperse into the deep-water areas of Lake Baikal, preparing for winter (Pastukhov 1993).



### ***Nerpa* and its Popular Perception**

Baikal seals are referred to by most Russians as *nerpa*. Locally, people say that the term *nerpa* was previously used to refer to several *Phoca* species encountered in northern Siberia by early Russian industrialists and explorers. However, this name seems to have eventually become associated solely with Baikal seals, and is no longer used to refer to other pinniped species in the Russian language. Over the past few decades, *nerpa* have become icons of Lake Baikal itself, commonly being used as logos by environmental groups, travel companies, and regional business meetings, and are widely used in a growing number of souvenirs and toys. For the general public, actual *nerpa* sightings seem to only occur at three *nerpinarii*, which are small zoo-like facilities in Irkutsk, Listvianka, and Sakhiurte where seals and their trainers perform a series of shows. Here one can get to know the seals as cute, curious, and playful animals with the ability to sing, dance, and even paint. The idea of building *nerpinarii* is said to have been initiated by local biologists as a way to educate the public about these elusive animals, which are rarely seen in their natural habitat. Another aspect of this educational process was the installation of video cameras on one of the remote islands in the lake where seals congregate in large numbers during the summer. The cameras provide a live view of the animals on television screens in the Baikal Museum in Listvianka, where both researchers and the broader public can observe them in real time.

For at least some local people and visitors to the lake, *nerpa* are also linked to the story of the Buriat *chort*, which is said to inhabit Lake Baikal. The term *chort* refers to a small black demon-like being in Russian folklore. The seal's identification as a *chort* is said to have come about largely because of "clueless tourists from Moscow" who came to Lake Baikal and were scared by a curious *nerpa* suddenly popping its head out of the water right in front of them. The bizarre appearance of this animal terrified the tourists, who supposedly screamed in panic and called it a "Buriat *chort*." It seems this event made the local people even more proud of their seals, and it created a humorous story that could be used to dissuade tourists from visiting the lake.

Another commonly held association with *nerpa* is the procurement of seal furs that were used in making the official outfits for the Winter Soviet Olympic teams in the 1970s and 1980s. This identification with the seals was fondly recalled by most of the hunters and their families we interviewed. Their memories of hunting the seals and preparing their furs for these important international events were a great point of personal pride. Arguably, this very public use of the seal's fur increased its status as a defining feature of the region and as an icon for Eastern Siberia in general.

### **Hunters and Their Seals**

For some people living along the shore of Lake Baikal, many types of *nerpa* are known. This is most evident among seal hunters and their families, most of whom have developed a deep knowledge of these animals by interacting with them for decades and through the shared experiences of earlier generations of

Table 1. Baikal seals and their names based on our interviews and reported in the literature.

Description	Local names ( <sup>1</sup> Buriat, <sup>2</sup> Evenk, <sup>3</sup> Russian)	References
Seal	<i>Khabb<sup>1</sup>, khab<sup>1</sup>, khaba<sup>1</sup>, khap<sup>1</sup>, kuma<sup>2</sup>, nerpa<sup>3</sup></i>	Afanas'eva-Medvedeva 2002; Dambueva 2006; Ivanov 1938; Zhambalova 1984
Newborn, with white fur	<i>Belek<sup>1</sup>, beliak<sup>3</sup></i>	Afanas'eva-Medvedeva 2009; Ivanov 1938; Pastukhov 1993
Seal in its 1 <sup>st</sup> year, silver-grey fur	<i>Khulere<sup>1</sup>, khuleri<sup>1</sup>, kulureshka<sup>2</sup>, kumutkun<sup>2</sup>, kumutkan<sup>2</sup>, nerpenok<sup>3</sup>, nerpiash<sup>3</sup></i>	Afanas'eva-Medvedeva 2002; Dambueva 2006; Ivanov 1938; Zhambalova 1984
Seal in its 2 <sup>nd</sup> year	<i>Iakhaanag<sup>1</sup></i>	Dambueva 2006
Seal in its 3 <sup>rd</sup> year	<i>Orleokhoi<sup>1</sup></i>	Dambueva 2006
Juvenile seals, up to 3 years old	<i>Khubun<sup>1</sup>, kholro<sup>1</sup>, iganok<sup>1</sup>, boloekhe<sup>1</sup>, arkhan<sup>1</sup>, cherniash<sup>3</sup>, cherniak<sup>3</sup>, akip<sup>3</sup></i>	Afanas'eva-Medvedeva 2007; Ivanov 1938; Zhambalova 1984
Small seals with yellow-brownish fur	<i>Bartashka<sup>3</sup></i>	Afanas'eva-Medvedeva 2007
Young seal slave	<i>Chetkaas<sup>1</sup></i>	Dambueva 2006
Mature but not pregnant female	<i>Baitogin inde<sup>1</sup>, ialovka<sup>3</sup></i>	Ivanov 1938
Mature pregnant female	<i>Tiurmyl<sup>1</sup>, matka<sup>3</sup></i>	Ivanov 1938
Adult (mature) male	<i>Sekach<sup>3</sup></i>	Ivanov 1938
Older mature male	<i>Arkhy<sup>1</sup>, argyl<sup>1</sup>, argal<sup>1</sup></i>	Afanas'eva-Medvedeva 2002; Dambueva 2006; Ivanov 1938

local hunters. Of course, these categorizations and understandings of *nerpa* vary significantly from those of biologists and the broader public, and include groupings of *nerpa* based on their age, sex, and behavior, but also according to the taste of their meat and blubber, and the quality of their furs. It was clear in our interviews, however, that not all hunters had the same depth of knowledge about seals, nor did they all reflect upon the seals with the same degree of specificity. Hunters that provided the most in-depth comments were those from families which had hunted seals in previous generations, and who themselves had hunted annually since they were teenagers.

Seal age, sex, fur color, and behavior seemed to be the primary characteristics used by hunters to group animals into named categories (Table 1). The mosaic nature of the people living on the lake's shores has led to a complex mix of words from the Evenk, Buriat, and Russian languages and dialects being used, even among a single ethnic group, with yet further variations being made along kinship lines and by village. For instance, in our interviews with hunters, the term *kumutkan*—an Evenk term for a seal pup—was repeatedly used, including by both Buriat and Russian individuals with no stated familial relationships to Evenk.

This multi-language naming also encompasses the material culture of sealing, and even the term for the sealers themselves. We refer here mostly to the names used by Buriat hunters, as they constituted the majority of the local people we have interviewed. An example of this is *khabashin* (also *khabuushan*, *khabashuul*), the Buriat word for a hunter of *khabb*, or seal (Table 1). More specific terminology for hunters and their tools are tied to the types of sealing conducted, which vary largely by season (Figure 3). Ice hunting begins in spring (early April), for example, and lasts until the ice has melted to the point of being



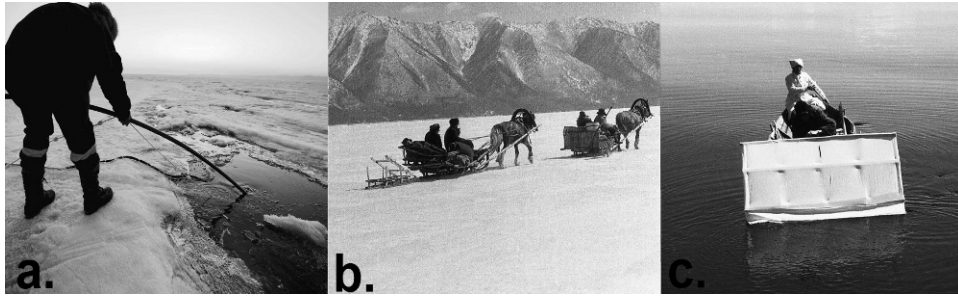


Figure 3. Spring seal hunting: a.) use of nets at a lead; b.) departing to sealing with a sled in tow; c.) boat with a white sail used for approaching seals (V.V. and M.V. Pastukhov's Family Archive, 1961-1979, 2010).

difficult to travel across (typically late April or early May; Figure 3a-b). A *myl'khaashan* (a Buriat seal hunter on the ice) utilizes a sled—*akhai* (also *aakhai*, *aakhe*, *zaakhai*)—or a net, a *gyl'me* (*gyre*). The sled parts also have their own names (Figure 4), as does the harpoon—*khokhongoi* (also *nosok*, *nomagoi*), which is fastened to the sled while approaching seals on the ice. The harpoon is an integral part of sealing during this period, being used to retrieve the killed animal from the water or to pull it from the edge of the lead, where the ice might be thin.

With the breaking ice (Figure 3c), boat hunting—*zeere*—begins, and this involves the use of an *ongoso* (boat), which is employed to access seals sun basking and moulting on the remnant floating ice. A hunter using a net is known as a *gummyshin*, while the hunter utilizing a boat is called an *ongoshin*. In summer, hunting formerly was done along sections of the lake's rocky shoreline (Figure 2b) using a *khukhe* (a club made from the handle of an axe) and a harpoon. Boat hunting and summer hunting are no longer legally permitted. Some body parts of seals also have local names. *Kumaksa* refers to fur and *ache* is the name for flippers. Historically, the furs were used, and sometimes still are, for clothing, rugs, blankets, and bags (*tulam*), and flippers are widely considered a delicacy by hunters and their family members.

In general, hunters know what type of seal is being pursued during a given hunting episode—where it lives, what it eats, when it mates, when and how it gives birth, moults, basks in the sun, and even when it is likely to have parasites. Some aspects of the seals' lives were clearly speculated on by the hunters, as seals are underwater much of the time and thus large portions of their lives remain unobservable. Despite this, hunters still know in great detail these animals' body conditions, habitat preferences, gestures, smells, and sounds, and how best to approach them during hunting.

Several hunters described seals as very curious and playful and as having a very good sense of hearing and smell. The seals were observed following boats in order to steal omul (*Coregonus migratorius* Georgi) from fishing nets, and seemed to prefer the heads of these fish. The color of their fur, especially of the younger seals, is regarded as highly attractive. It is most often a silver color, but in rare cases violet colored seals have been seen. V. Khagutov, a Buriat hunter, told us that the seals' fur would turn to this color because when the animals have



Figure 4. Names of sled parts for ice hunting (photo of V. Khagutov, 2012).

lice, they go into caves along the shoreline and rub themselves against the rocks, which stains their coats, possibly with ochre. Khoboi is one such cave where such pigmented rocks are known to exist (Figure 1). Buriat elders previously hunted at this location, using harpoons to strike the animals while they rested on the rocks or swam near the shore.

The newborn seal, or *belek* (Table 1; Figure 5a), is born with completely white fur, and lives in a *rodilka*, or den, made under the snow and ice. Dogs are sometimes used to sniff out the locations of the dens, which are extremely hard to locate otherwise. Dogs are also critical for finding seal breathing holes, or *nukhen* (also *khun'*, *sulkhen*; Afanas'eva-Medvedeva 2002; Dambueva 2006). Newborn seals are commonly described as tiny and white. For example, a Buriat hunter from Onguren described them as "this little *beliak*, whiteish-white, and its fur like feathers, like a little rabbit" (Afanas'eva-Medvedeva 2009, Vol. 3:192). V. Khagutov recalled the newborns "screaming like a little mouse" while in the den, particularly when *matka* (the mother seal, Table 1) pushed them into the water so that they would learn to swim. He also stated that when hunters killed such pups in the dens (a practice no longer done), their bellies were often found to contain *matka's* milk, which was described as "like sour cream." Elder hunters used this as milk for their tea while out on the ice. The *belek's* fur can be used to make a hat or shirt, but the fur provides little protection from the cold, so it is not preferred for making clothing. The seal body itself is of little use as food due to its very small size.

A *kumutkan* is a young pup whose fur has just changed in color from white to silver-grey, and is the most commonly hunted seal type (Table 1; Figure 5b). *Kumutkan* are described as being like puppies: they are good natured, little, silly, and curious creatures. They swim well but cannot make deep or long dives. They easily become entangled in nets and are regularly seen on the ice sleeping near *matka*. Their meat and blubber are considered very tasty, with most hunters

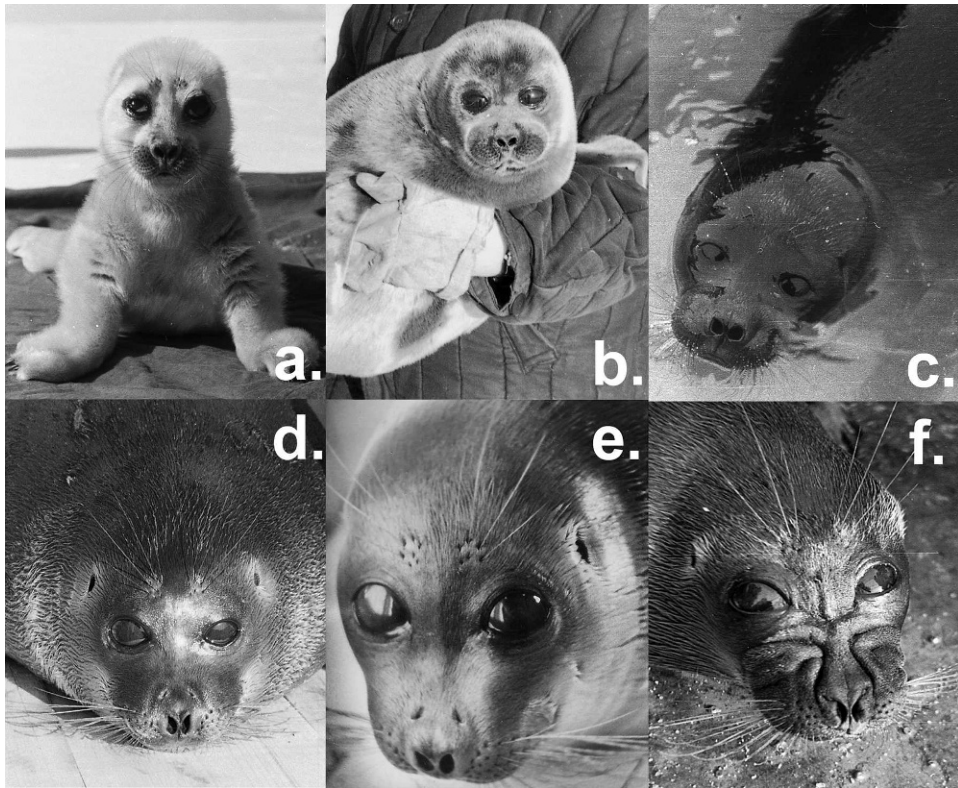


Figure 5. Baikal seals by general age groups: a.) newborn; b.) two month old; c & d.) juveniles; e.) adult female; f.) adult male (photos by V.V. Pastukhov, taken from 1961–1979).

describing them as delicacies. For example, V. Khagutov stated that the “meat is as tasty as a young lamb, oh oh (sic) fat too and not that fatty... excellent fat!” Additionally, the fur of these seals was often described as being of high quality and is still commonly used in making clothing such as hats worn by local people.

All juvenile seals other than *kumutkan* are known as *khubun* (Table 1; Figure 5c-d). These relatively small, silver-grey seals are not easily identifiable to specific age and sex when viewed from a distance, with sex only typically being identified by examining seals post-mortem. Two-year-old *khubun* are said to be an easy catch and are regarded as tasty, but less so than *kumutkan*. V. Khagutov described the relative ease of catching these animals in this way: “ah they are sleeping... they do not feel neither coming danger nor wind... nothing... just sleepy.” *Khubun* are regarded as playful and are known to chase each other under water, sometimes resulting in them becoming entangled in fishing nets (Afanas’eva-Medvedeva 2009, Vol. 3:191). The fur of some of these animals can be very poor, appearing beaten or mangled, and this is said to be the result of the seals being “slaves”—*chetkaas*—for the bigger adult males. The larger males are thought to force the juvenile “slaves” to make (i.e., dig out) or keep open breathing holes through the ice, the process of which wears away at the younger seals’ fur. Such poor quality furs are typically only used for hallway rugs.

Adults, in general, are not highly regarded, as their meat has a strong fishy taste, their fur is of poor quality and the males in particular have an unpleasant smell. They can be fairly easily distinguished from a distance by their body shape, and in the case of males, their odor. *Matka*, adult females (Table 1; Figure 5e), are rounded in appearance, particularly when pregnant, and are typically very fat and smart. V. Khagutov stated that "*matka* usually is round, how to say... like a barrel, like a *fliaga* (a large water canteen), well she is round, and you can see right away that she is full of fat like a 200 liter barrel and bigger." These seals are also described as having sad-looking eyes, somewhat elongated snouts, and skin that is smooth and plain. One hunter interviewed in the 1800s said that such seals "moo like bulls" and make puffing sounds when reaching their breathing holes; this was done to check for the presence of hunters (Vitkovskii 1890). *Matka* are rarely seen entangled in nets and are too observant and clever to be approached by hunters, fleeing to the water in response to the slightest sound or movement.

An *argal*, a mature male (Table 1; Figure 5f), was described by A. Arganov as big in size, but the "male he is skinny, long," and by V. Khagutov as "flat... big as a bed" but as having "no fat, only blood and muscles." These animals are considered very bold and unafraid of humans, so they can be relatively easy to approach. However, they are typically not pursued because of their very strong odor, their poor quality fur (they were described as "bald"), and poor tasting meat. Khagutov stated that "it is impossible to eat *argal*... even to approach it is impossible... when the wind is towards you... ah do not approach... stinky dog smell, ah ah (sic) impossible even... better not to approach." M. Sarin, another local hunter, referred to the taste of *argal* as being like a "stinky dog... like an old man." While *argal* were not the most commonly taken seals, nor even highly regarded as food items or sources of fur, hunters nonetheless expressed a connection or commonality with them, which seems to be tied to the fact that the hunters we interviewed and *argal* are all older males. Perhaps a related matter is that some hunters recalled that the baculum (penis bone) of *argal* were used by previous generations of male seal hunters for making smoking pipes.

### Sacred Baikal and *Nerpa*

Lake Baikal is known as the "sacred sea" among many of the people living along its shores, and numerous local practices, beliefs, and issues of respect, purity, and danger are interwoven with this sacredness. The "master of the sea" is known to be dangerous and inspires fear. It can easily flip boats and often changes its mood. Hunters say they never prayed as much in their lives as when they were boating on the lake. Baikal is believed to have curative powers and is also known as clean and pure. Indeed, women should never give birth on boats on the lake, as this is a "sin" and contaminates the purity of Baikal. Conversely, a woman who is unable to have a child can become fertile by crossing the lake in a boat, and people who are sick can speed their recovery through this same process. The master of Baikal can also be an agent of punishment. Mistreating swans is particularly offensive, and the master of the lake is said to kill immediately anyone doing this by sinking their boats through the use of strong



winds. No one can state that they are richer than Baikal. A Buriat *Dali* (rich person) who once claimed to be richer shortly thereafter drowned in the lake and all his 700 sheep were frozen to death the following winter (Afanas'eva-Medvedeva 2007, Vol. 1:231, Vol. 2:181).

Respect must be given to the master of the lake, as he is the one who gives fish and *nerpa* to people. Depending on the local tradition being referenced, *nerpa* can be a daughter of the master of the sea, or even the female master of the sea itself. These ideas are tied to local legends about the first Buriats, which are told across the Baikal region (Petri 1924:120–122). The legends tell that in the beginning, a beautiful daughter of a Mongolian tsar fell in love with a son of the northern fire-red sky, who was pretending to be a blue bull during the day and visiting her at night. She became pregnant and gave birth to two boys and a girl, whom the son of the northern fire-red sky hid from her father. He was angered about his daughter's love and locked her up with a seventy-year-old woman. The oldest boy was taken to be raised by a sky-bull. The other two children were sent to the master of the sea, known by the name *Dalen-ezhin* (or *Dalain Ekhe Baabai*; Dambueva 2006). A husband and wife, both shamans, who did not have their own children, kidnapped the boy who had been raised by the sky-bull. While he was living with the shamans, the oldest son met his brother and sister at the lakeshore and played with them often. When the shamans heard that their son was playing with his brother and sister, they decided to kidnap them as well. They instructed their son to give the other children a special drink to make them fall asleep, but when he tried this, the girl would not drink the potion. When she saw the shamans approaching, she tried to wake her brother who had drunk the potion, and then asked the sea to save them. The sea rose and tried to save the children, but the shamans fought back. The girl transformed into a seal and swam into the lake. When the girl was leaving, she told her brother to change his name to *Ikhirit* ("found in the water") and live among the people, as her destiny was to be *nerpa*. She told him to bring her milk, sour cream, and *taryk* (a thick milk-based drink). In return, *Ikhirit* asked her to send him fish. The shamans raised the two boys, *Ikhirit* and *Bulagat*, who are the ancestors of two local Buriat lineages.

This legend marks a distinction between the sea and land, but also links them through the exchange of foods exclusively available in each. People now living along the lake maintain rites of purification and food offerings to Baikal. Before departing for hunting or fishing, an offering of milk is needed, as is the purifying of the hunter or fisher and his tools with burning smoke from *gaange* or *bogorodskaiia trava* (thyme, *Thymus serpyllum* L.; Afanas'eva-Medvedeva 2002), or *edoo* (bark of a fir tree; Dambueva 2006). The hunter must also sprinkle vodka on the ground at various locations before he enters the lake. Females are required to keep clean, and those who are not clean (e.g., during their menstruation period) cannot touch anything the hunter takes to the lake. Adult females are not allowed to come to the shore and watch the men depart or perform their offerings to the lake. Females pray for their brothers, fathers, or husbands every day they are on the lake and sprinkle offerings to the spirits made from tea with milk in an additional effort to secure the men's safety and success.

The legend described above shows that a seal in some cases can be a female master of Baikal sent to humans by a god. This was also recalled by an elderly seal hunter from the Onguren settlement (Afanas'eva-Medvedeva 2007, Vol. 2:300), who reported that one summer a man killed a *bartashka* (see Table 1) in the Mukhur Gulf of the Little Sea. When the man got the seal into his boat, he saw that it had a pattern on its back that looked like a saddle. The elders told him that the seal was a female master of Baikal that was ridden by a god; he was instructed not to touch it, as this was a sin. He had by this point already killed the seal, and ever since this transgression, seals have avoided the Little Sea. The man who killed the seal is said to have died the following spring. The appearance of seals in the Little Sea also was said to be a "sin" in our own interview with one of the hunters from Elantsy. It was not clear exactly why, but the hunter was adamant that seals were not supposed to come into the Little Sea, and if they did, no one was allowed to hunt them. Seals today largely limit their presence to the open portions of Lake Baikal (i.e., the deeper sections of the lake). The Little Sea, on the other hand, is much shallower (but easily accessible to seals from the deeper lake sections) and seals rarely enter it, and then typically only in summer. It seems that at least some people relate the current distribution of seals within the lake, and encounters with seals in unusual places where these animals rarely venture, as messages sent by a god or the master of Baikal.

As *nerpa* are given to people by Baikal, or are said to belong to Baikal, they need to be shared according to a *khubaaltkha*, or sharing ethic (Dambueva 2006). Hunters need to share seals with everyone because these animals were given to them and not raised by their own hands; they came freely, with "no effort" (Afanas'eva-Medvedeva 2007, Vol. 2:301). Therefore, hunters are supposed to take only as much as they need and share the rest with others. If they do not do so, their hunting luck, known as *fart*, will dwindle. Maintaining one's luck is important, and this involves a suite of activities beyond sharing, such as distinct ways of sprinkling vodka in the lake for the ancestors and spirits, both before and after hunting. Other hunting luck maintenance activities include special treatment of the first seal killed, which involves consumption of the raw liver and fat and a set way of butchering it and collecting its bones, which are later burned. Others stated that it is also good practice to leave a piece of *nerpa* on the shore for the gods. At Onguren, the female shaman *Odegon* helped hunters by going with them to sacred, hidden places (which other females were not allowed to frequent) and, using sacred words, asking Baikal for help (Afanas'eva-Medvedeva 2002).

If one was to lose his luck, several things were required to *olzo asarkha* (to return to luck, Dambueva 2006). Such a hunter would sacrifice a goat, not through killing, but rather by setting it loose for the gods to take. The hunters would leave the settlement with the goat marked with white, yellow, and blue ribbons or strips of cloth; red ribbons were never used because this is the color of blood. The goat would simply be let loose; it might return on its own to the settlement, but then would eventually disappear, meaning it had been taken by the gods. Another means of regaining hunting luck has been recorded among hunters from Onguren. In earlier times, hunters from this village would make a seal *sholmo* (stuffed animal, Dambueva 2006). They would then take the *sholmo* to a peninsula, a prohibited place for females, shoot at the *sholmo*, and then burn



it (Afanas'eva-Medvedeva 2002). Precisely how this process restored hunting luck was not stated, nor was this practice recalled by the hunters we interviewed. Some *nerpa* hunters we interviewed also perform fortune-telling using seal scapulas to see if their luck will be good in a hunt, or to determine where best to hunt. To do this, the scapula was flipped like a coin, or burnt over a fire and the cracks read.

An account from the early 20<sup>th</sup> century also mentioned briefly that when a seal was killed, its eyes were held tightly together by the nerves and thrown back into the lake. By doing this, the animal would regenerate and its soul would return to the master of the sea, obtain another skin and body, and once again become a seal (Petri 1924:122). Only two of the hunters we interviewed had ever heard of such practices, or of other rites possibly related to this practice. A. Kharnutov mentioned that he knew some hunters who would take a killed seal's head and position it facing a certain direction, and then sprinkle vodka on it. M. Sarin recalled that the elders from the northeastern side of Baikal did something distinct with seal heads, but could not remember exactly what this involved. In the 19<sup>th</sup> century, Evenk hunters reportedly would hide the first seals that were killed, and would not inform the others how many seals they had obtained, nor let their families see those animals, all in an effort to maintain their hunting luck. These hunters also refused to give away or sell a seal carcass to a researcher, despite his making a substantial offer for it (Vitkovskii 1890). A year later, another researcher commented that hunters would not sell seal bones lest they lose their hunting luck (Kuznetsov 1891).

### Meaningful Seals in the Distant Past

The archaeological record clearly demonstrates that seals were an important subsistence resource for various Lake Baikal societies in the past, including both foragers and pastoralists. Recent analyses of archaeological faunal remains have provided a series of new insights on ancient sealing practices on Lake Baikal (Nomokonova 2011; Nomokonova et al. 2009, 2010). For example, it is now clear that seal use began here over 9,000 years ago, as best evidenced at the Sagan-Zaba II site (Figure 1) where recent excavations have resulted in the recovery of over 16,000 seal remains (Nomokonova 2011). Seal use was most common along the west central shore of the lake adjacent to Baikal's deep open waters. These animals appear to have been most intensively utilized by the region's Middle Holocene foragers (Nomokonova 2011). Analyses of incremental dentine layers in the canine teeth of seals recovered from several Holocene sites indicate that most sealing by Baikal foragers occurred in early spring when the lake was ice-covered, and the most commonly taken seals were yearlings (Nomokonova 2011; Weber et al. 1998). Stable isotope analyses of human skeletal remains found buried along the lakeshore demonstrated that some Middle Holocene forager groups had diets with substantial aquatic food content, which undoubtedly included some seal (e.g., Katzenberg et al. 2010; Weber et al. 2011). Furthermore, Late Holocene deposits at multiple habitation sites contain seal remains mixed with those of domesticates (primarily cattle, horse, sheep, goat), indicating that early pastoralists in the Baikal region also hunted these animals (Goriunova et al.

Table 2. Archaeological representations of seals found in sites in the Lake Baikal region.

Site name	Context	Age	Material	Description	Reference
Shishkino	Rock art panel	Bronze Age?	Rock cliff face	6 seal body outlines amongst other zoomorphic and abstract images; various sizes	Mel'nikova 1992; Vetrov et al. 1990
Idan, cemetery	5 m from human grave #2	Bronze Age	Bone or antler	Seal image; 11.3 cm long	Rygdylon and Khoroshikh 1958
Shamanka II, cemetery	Found within grave #18, with a 20 to 25-year-old male, among many grave goods	Early Neolithic; grave directly dated to 7680-7600 cal BP	Antler	Seal head carved on a shaft or handle; 15 cm long	Bazaliiskii et al. 2006
Smorodovaia Pad', habitation site	Trench I, layer unspecified	Neolithic - Bronze Age	Black stone	Possible sculptural depiction of a seal with its sides bearing incised marks; 4.6 cm long	Kushnareva and Khlopin 1992
Sagan-Zaba II, habitation site	Layer III	Neolithic	Antler?	Possible sculptural representation of a seal head carved on a spoon handle; fragment 9.4 cm long	Aseev 2003; Goriunova and Novikov 2012
Malaia Ludarskaia, cave	Near cave entrance on surface	Bronze - Early Iron Age?	Stone	Seal image incised on a carved stone phallus; image is 4.5 cm long	Khlobystin 1964

2007; Nomokonova et al. 2010). No stable isotope studies have been conducted on the region's Late Holocene human remains. Rarely discussed is the archaeological evidence from the region that hints at other roles for seals in the past (Table 2). While such evidence is limited, this material, including seal imagery in rock art and portable depictions of seals found in human cemeteries and habitation sites, suggests human relations with these animals extended far beyond merely using them as food.

### Seals in Rock Art

Images in rock art interpreted as seals are rare in the region, with only a single site having such images, and even these were found among far more abundant depictions of humans, elk, deer, and horses (Okladnikov and Zaporozhskaya 1959). The dating of the seal images at this site, which is known as Shishkino, is unclear, but it is possible that they were produced by both foragers and pastoralists, with the earliest images at this site perhaps dating to the Middle Holocene. However, the depiction of domesticated animals almost certainly indicates some use of the panel during the Late Holocene. Shishkino has six possible images of seals that were made using a combination of rubbing,

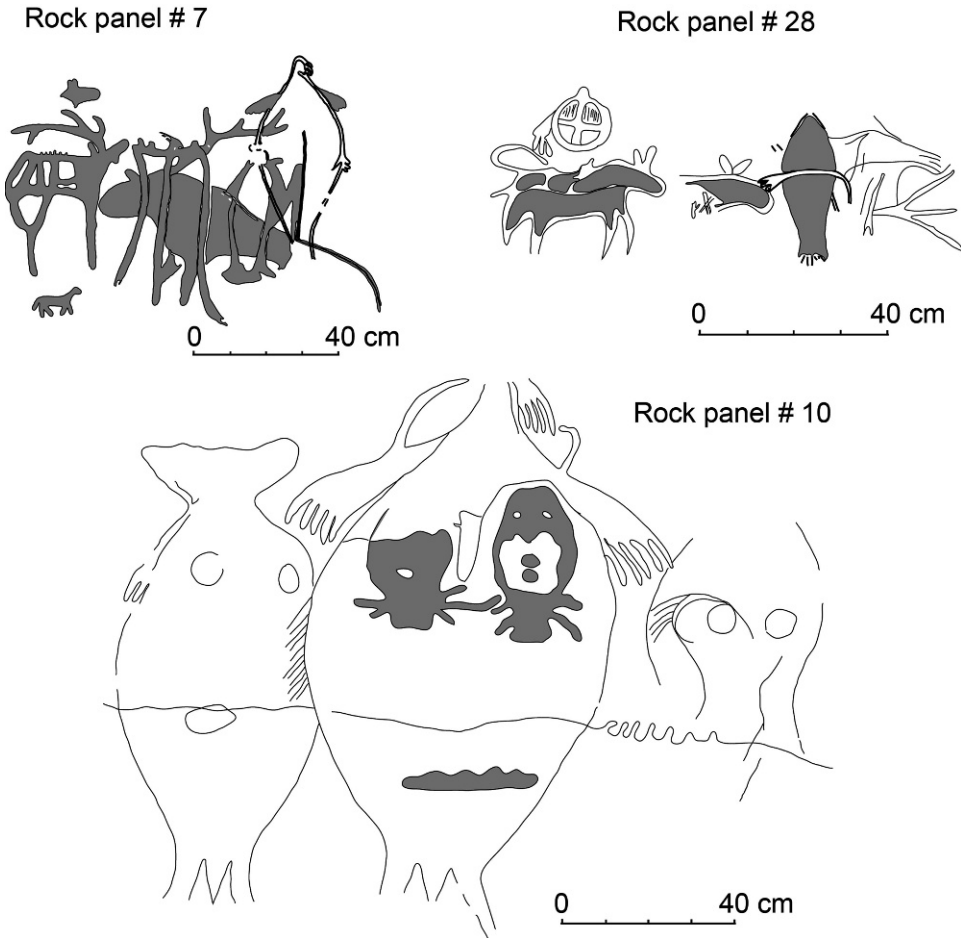


Figure 6. Shishkino rock art panel with seal images (modified from Mel'nikova 1992:70).

polishing, and engraving techniques (Figure 6). These images consist of outlines of seal bodies that are oriented vertically, and are up to 60 cm tall and up to 20 cm wide. Perhaps somewhat surprisingly, Shishkino is not on the shore of Lake Baikal (where numerous other rock art sites have been documented, Okladnikov 1974), but rather is located on the Upper Lena River, 130 km northwest of the lake (Figure 1, Mel'nikova 1992; Vetrov et al. 1990). While the meanings of the seal images are unclear, their presence here suggests these animals had significance to people living some distance from the seals' habitat, who perhaps learned about these animals from people residing at the lake. Alternatively, the images may have been made by individuals moving between the lake and the Upper Lena River.

### Portable Seal Representations

Excavations at the Malaia Ludarskaia cave on the north shore of Lake Baikal (Figure 1) resulted in the recovery of a cobble carved into a phallus shape and bearing a clear representation of a seal on one of its sides (Figure 7[4]). This object was found near the cave entrance in a layer that contained chert arrowheads and

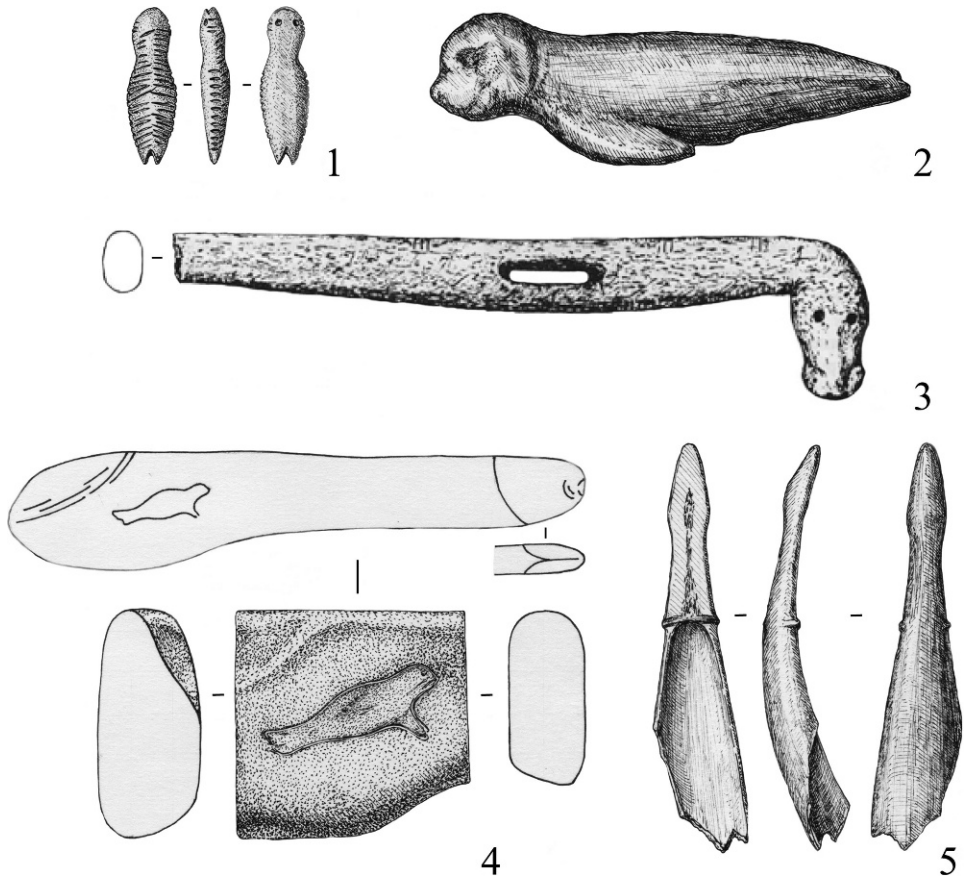


Figure 7. Portable seal images from the Baikal region. Objects are from: 1. Smorodovaia Pad' (Kushnareva and Khlopin 1992:236); 2. Idan (Rygdylon and Khoroshikh 1958:184); 3. Shamanka II (Bazaliiskii et al. 2006: 94); 4. Malaia Ludarskaia (Khlobystin 1964:36); 5. Sagan-Zaba II (Goriunova and Novikov 2012:90). All were redrawn by Natal'ia Kasprishina from the original illustrations.

multiple ceramic fragments that were typologically assigned to the Early Iron Age, or 2500 to 2000 BP (Khlobystin 1964), long after pastoralist groups had come to occupy portions of the Baikal shoreline. The image of the seal was incised into the stone and includes an outline of the body in profile with clearly indicated flippers, a mark for one eye, and even incised lines for the whiskers. Notably, for some Buriat, cave entrances are associated with female reproductive organs and with ancestors. People come to caves to make gestures of respect and offerings, in part to enhance their ability to have a child (Batoeva et al. 2002). Perhaps the placement of the stone phallus near the entrance of the Malaia Ludarskaia cave involved similar ideas and activities.

At the Idan cemetery on the Angara River approximately 90 km from Lake Baikal, a seal carved from bone or antler was found a few meters away from a human grave thought to date to the Bronze Age, which at the time of excavation was assumed to date between roughly 4,500 and 3,000 years ago (Rygdylon and

Khoroshikh 1958). This object is a representation of a seal sculpted in the round, with the flippers and the head, including its eyes, mouth, and nose, carved in a naturalistic manner (Figure 7[2]). Again, the presence of this object on the Angara River suggests that seals were meaningful even among groups living some distance away from these animals' preferred habitats. Its placement in the cemetery is also intriguing, but too little is known about its actual location there to make further interpretations of its meaning.

A third very clear representation of a seal has been documented at the Early Neolithic cemetery known as Shamanka II on the southwest shore of the lake (Figure 1). This object was found within the grave of a young adult male (grave #18), and a radiocarbon date on this individual's skeletal remains places his death at 7680-7600 cal BP (Weber et al. 2006). The object (Figure 7[3]) was found next to the man's left hip elements, but the grave had been extensively disturbed in antiquity, making the association of the object with the human skeleton somewhat unclear (Bazaliiskii et al. 2006). The object is L-shaped, with the longer section being a shaft incised with lines along both of its lateral margins and an oval hole through its center, which was likely used for the attachment of another object. The shorter end of the piece is a sculptural rendition of a seal head, with the eyes, nose, and mouth clearly indicated. The sides of the nose are marked by a series of small dots, which likely represent the whiskers of the seal. Bazaliiskii et al. (2006) suggested that this and comparable objects with carved animal heads found elsewhere in Russia were parts of symbolic canes used by mature males. Other zoomorphic imagery at Shamanka II is limited entirely to representations of ungulates, most of which appear to be elk (*Alces alces* L.).

Two more objects from sites on the lakeshore have been said to represent seals, but both are more stylized and thus more difficult to attribute specifically to these animals. The first was found at the Smorodovaia Pad' habitation site on the southwestern shore of the lake (Figure 1), which contains a mix of materials from the Neolithic and Bronze Age, or Middle Holocene period. Kushnareva and Khlopin (1992) have argued that a black zoomorphic stone sculpture from this site represents a seal, probably because of the object's general outline, which includes a rounded head, an oval body, and a forked end (Figure 7[1]). Unlike the previously described objects, this one has no clearly indicated front flippers and its general appearance could be attributed to a number of animals, not just seals. Finally, excavations at the Sagan-Zaba II site in the 1970s on the west-central shore of the lake (Figure 1) produced one object with a design element said to be a seal (Aseev 2003; Goriunova and Novikov 2012). The object, which was assigned to the Neolithic period (Middle Holocene), is poorly illustrated in the original report, but to us appears to be a fragment of an antler spoon with its handle having a vaguely zoomorphic shape (Figure 7[5]). We could not relocate this object for additional study and consider its assignment as a seal representation unsubstantiated. The Sagan-Zaba II site also consists of a large rock art panel, but none of the images there appear to represent seals (Okladnikov 1974).

Overall, what is perhaps most interesting about these archaeological representations of seals is that they have a number of forms, from simple body outlines to detailed renditions of heads, and occur in a variety of settings,

including caves, graves, and habitation sites. Furthermore, they are sometimes found in sites far from the lakeshore, but seem to be rare or absent at sites like Sagan-Zaba II, where sealing itself was carried out for thousands of years. Representations of seals are never abundant in the Baikal region, but appear there at least 7,000 years ago and continue to be present in the archaeological record as late as the Iron Age.

### Conclusion

Baikal seals are involved in a suite of meaningful relationships with people, none of which can be reduced to interactions between predator and prey, or consumer and commodity. For people living in Eastern Siberia, and those visiting the region, this animal is iconic. However, in reality very few such individuals encounter the seals outside of the *nerpinarii*, where a few are kept captive for education and entertainment purposes. Their status as icons is perhaps linked to the seals' uniqueness and general appearance—they are a “cute” species confined to a freshwater lake that is far closer to the Mongolian steppe than to any ocean. The lake's suite of other unique endemic species is largely unknown to the public but these are mostly fish and invertebrates, which lack the modern aesthetic appeal of the small rotund seals. The increasing tourism in this region likely will only enhance the use of the seal's image as an icon, despite the fact that only those hunting the animals actually engage with the seals in their own habitat.

For those people living along the lake and hunting these seals, the relationships have far more depth and intimacy. For some of the Buriat and Evenk we interviewed, the ways in which Baikal seals were understood and interacted with had many similarities to how seals are engaged with by Arctic indigenous groups—they have ontological and cosmological roles, success in procuring them requires good standing with spirits or the animal itself, and proper treatment of their bodies after death aids in their regeneration (e.g., Ingold 2000; Juel 1945; Ohtsuka 1994; Pelly 2001). These understandings of the seals may have deep roots that extend from the region's earlier foraging groups, some of whom made representations of seals, and distinctly treated remains of other animals, including burying them in cemeteries (Losey et al. 2011; Losey et al. 2013). Unlike many societies of the far north, the Buriat living on Lake Baikal come from a long tradition of pastoralism. Some of their practices done in relation to Baikal seals, such as fortune-telling with the scapula, the offering of libations to the spirits of the lake prior to hunting, and animal sacrifices to increase hunting luck, likely have roots in Central Asian pastoralist rites and beliefs. In other words, the seals are engaged with in culturally and historically specific ways that cannot be reduced to a general northern animistic model of human-animal relations.

The intimate ways in which Baikal seals were known and categorized also involved sensory knowledge of the animals, including detailed understanding of their sounds, smells, taste, and behavior. Some of this knowledge extends to periods of the seals' lives that are seemingly very difficult to directly observe, such as their behavior in the snow and ice dens on the frozen lake surface. The value of seals is not based entirely on body sizes but rather on their taste, lack of



offensive odor, fur quality, and flight response. These seal selection factors are likely to have been important in the past, and should be taken into account in archaeological explorations of why certain age groups of seals were preferred by ancient inhabitants of the lakeshore.

Through continued work with seal hunters and their families, we hope to document other local knowledge involved in engaging with the seals, such as butchery practices and use of the seal body in local cuisine. These seemingly mundane practices are likely to be just as complex and meaning-laden, and similar to the knowledge outlined in this paper, will probably show a myriad of unique ways in which seals are interwoven with local people and practices.

### Note

<sup>1</sup> The transliteration of Russian words and phrases into English is based on the United States Library of Congress System (without diacritical marks).

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