

Subsistence Whaling of the Chukotkan Indigenous Peoples

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1. Introduction

The coastal settlements of Chukotka were traditionally located on the spit, as close as possible to the migration routes of marine mammals (Bogoslovskaya et al. 2016: 212–213). Basically, the camps were evenly settled along the coast to avoid hunting competition and to provide communities with diverse food sources. According to Krupnik (1987: 19), archaeologists have excavated 48 large ancient whaling sites along the coast. The researchers agreed that whaling has been a significant part of the Bering Strait region's economy since Old Bering Sea culture (Dikov and Clark 1965: 19; Arutyunov and Sergeev 1968: 73). Yet, the earliest traces of whaling were found during the Old Whaling Culture at 3300 B.P. (Ackerman 1988: 69; Whitridge 1999: 135).

In the middle of the 20th century, the Soviet authorities carried out a policy of resettlement (Bartels and Bartels 2006: 268), which led to a decrease in the number of villages. According International Whaling Commission (hereinafter IWC), here is a list of modern whaling villages among the coast, from North to South: Vankarem, Nutepeľ'men, Neshkan, Enurmino, Inchoun, Uelen, Lavrentia, Lorino, Yanrakynnot, Novoe Chaplino, Sireniki, Nunligran, Enmelen, and Uel'kal (IWC n.d.b). There are seven more villages where villagers hunted whales until the beginning of the 2010s: Billings, Ryrkaipyi, Provideniya, Konergino, Egvekinot, Meinypil'gino, and Khatyrka. Indigenous people, dominated by the Chukchi, are the majority of the settlements' populations. There are only three Siberian Yupik villages: Novoe Chaplino, Sireniki, and Uelkal.

The incomes of coastal residents depend on two types of activities: traditional subsistence and municipal service. Villagers work in municipal reindeer enterprises and registered hunting communities (obshchinas) subsidized by regional governments. Municipal units also provide educational, medical, social, and utility services.

Most of the population depends on harvesting marine mammals and fish, including those who work for the municipality. Approximately 50% of the diet of the villagers consists of seafood: the meat and fat of marine mammals, fish, birds, plants, and mollusks. From spring to autumn, the share of seafood in the diet of the indigenous population increases. The nutrition of villagers also varies depending on the location of the villages, routes, and seasons of migration of marine mammals. Almost all adult men in coastal villages, which means 23% of the village population (Russian Census 2010),

are hunting or at least fishing. Villagers who work in hunting communities hunt whales, walrus, and seals all year round, while others join them in the fall to get their share of whale or walrus meat. There are also villagers who hunt only seals or fish independently all year round.

The dependence of modern coastal inhabitants on sea hunting is due to the following explanations. Hunters consider sea hunting to be the only true, “genuine” way of life; they enjoy the traditional way of life, and provide their families with traditional, “genuine” food. Hunting is the most familiar and affordable way to get food and provide employment. The hunting community has a permanent job at the expense of government subsidies, while providing the village with traditional food. By sharing the results of hunting, fishing, and reindeer husbandry between hunter communities, reindeer herders’ camps, and other villages, modern indigenous people retain their traditional social organization, lifestyle, and identity.

This paper has four chapters describing modern-day Chukotka whalers as a firm stratum of the coastal settlements, aboriginal whaling that has been using the same hunting equipment for thousands of years, the process of butchering and distributing whaling products similar to the one that has always existed in the region, and traditional ceremonies dedicated to the celebration of the life of indigenous people and whales. Although they have a common history and use a similar type of whaling, each whaling community developed its own peculiarities and differences due to traditions, the location of the settlement, and the intensity of influence by third-party cultures.

2. Whalers

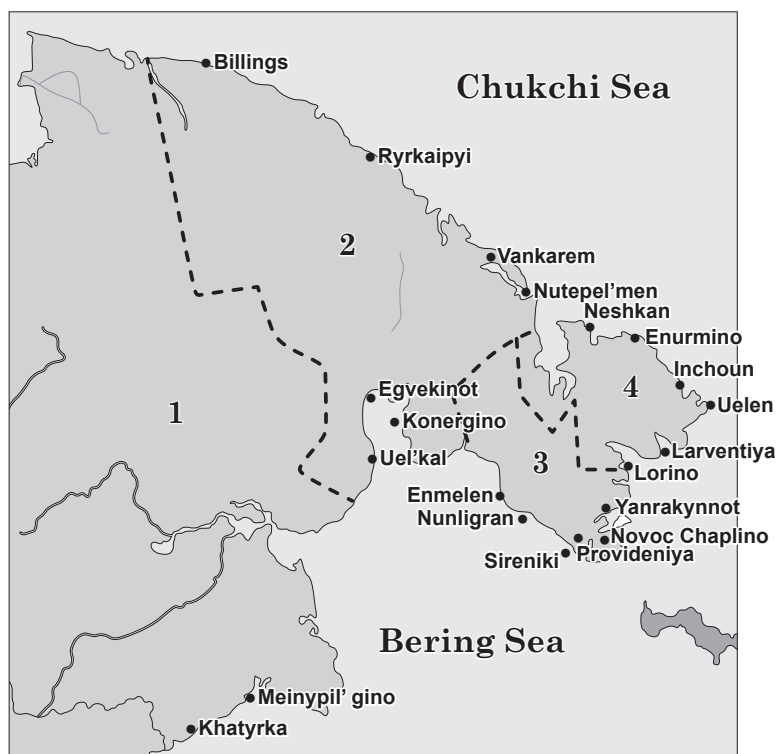
Bogoras (1901: 101–102; 1907b: 540) described that, at the end of the 19th and early 20th centuries, whaling teams were designed on the basis of extended family relations. After a hundred years, this origin of the crew’s organization was still preserved with only minor changes. The experience of hunting was passed down from generation to generation, from a father or uncle to a son or nephew. However, during the 1990s, there were significant changes in the social organization of the whaling crew. Hunting activity has become the main, and sometimes the only source, of food for residents of coastal areas. In most hunting communities, whaling teams were formed from different families, and even included former reindeer herders. Somewhat later, new aluminum boats with 150 horsepower outboard motors completed the process of radical transformations in the configuration of the crew of the boat, reducing the number of crewmembers to four people and reducing family ties to a minimum. Furthermore, two other types of hunting that had been limited during the Soviet Era reappeared in the villages. A small boat crew based on kinship and neighborhood relations, hunting walrus and even whales, as well as individuals hunting for seals and polar bears, has also become widespread among villagers. It can be assumed that changes in the organization of the boat crew reflected deep changes in the socio-cultural characteristics of the Chukotka communities.

The modern Chukotkan whaling is carried out by registered hunting communities, which are regulated by international and federal legislation (IWC n.d.b) with adherence

to customary law. The goal of the integrated management system is to provide the traditional food and cultural needs of the indigenous people in order to preserve their identity through traditional livelihoods and consumption. The IWC issued aboriginal whaling quotas every six years (IWC n.d.c). According to Russian law, only “territorially neighboring” or “family-clan” indigenous communities (hereinafter referred to as “hunting community / communities”) are entitled to quotas for traditional subsistence (Federal Law 104-FZ 2000). Chukotka regional legislation provides state subsidies to hunting communities. The basis for issuing subsidies is providing indigenous people with traditional food.

2.1 Hunting Communities

Hunting communities are located in each coastal village (Map 1) and are actually smaller versions of the former Soviet state farms. Each community usually employs 10–15 hunters and several employees, such as the chairman, accountant, and secretary. The number of hunters depends on the population of the village. For example, the population of Lorino is about 1,400 inhabitants, and the local hunting community is about 40 members while the population of Uelkal is less than 150 inhabitants and, in their hunting



Map 1 Chukotka aboriginal whaling villages
(Source: IWC's website: <https://iwc.int/russian-federation>)
(accessed June 14, 2020)

community, only two hunters work on a full time basis and several people are hired for the whaling season. According to Lobanov (2010), there are 36 hunting crews and 300 hunters for the 14 settlements of Chukotka. Office employees and hunters have hourly wages. To gain an additional annual bonus, the hunting community must land a number of marine mammals approved by the regional government to provide the villagers with a sufficient minimum of traditional food. Hunting communities hire whalers for a permanent job and for the season. Those who work all year round are guaranteed paid medical insurance and other social benefits. Hunters who are hired temporarily for the summer and autumn hunting seasons have only an hourly wage.

The communities have several different types of boats. Since the end of the 1990s, aluminum boats from 15 to 25 feet long have dominated. In some communities, traditional 30-foot wooden and skin boats of various lengths have also been preserved for supporting purposes. The communities use outboard engines ranging from 40 to 150 horsepower, a tractor, a snowmobile, 7.62 and 9.3mm rifles, and whaling darting guns. There is also a standard cabin complex based on a 20-foot container, which includes a repair store, a mess room, and an administrative office. Some communities have a fridge based on a 20-foot container, while others have a large ice cellar (up to 200 tons) or a combination of these meat stores. All of the above, as well as hunting equipment, repair tools, and even overalls, are supplied by the state subsidy (Lobanov 2010).

2.2 Informal Hunting Crew

The next group is informal hunting team members. This group consists of hunters who are united in small teams that do not have state registration as hunting communities. These hunting teams involve family members, relatives, neighbors, and friends in any combination with a predominance of family ties. The number of crewmembers does not exceed two to three people, being limited by the size of the boat. These hunters have their own boat, mostly no more than 15 feet, and an outboard engine of no more than 40–60 horsepower, due to their high cost. Hunting equipment may belong entirely to one hunter, but most often it is shared, where one hunter contributes a boat and outboard motor, and another has a rifle or a snowmobile. However, the boat is a key element in the establishment of this type of hunting team. Because of the expensive hunting equipment, the “informal” groups of hunters are few, on average two to three boats per village. These are generally villagers who have a permanent job or a stable income in order to be able to buy a boat and other hunting equipment. These hunters are organized mainly for walrus hunting. However, occasionally informal hunters join the hunting communities for whaling.

2.3 Individual Hunters

Finally, there are the individual hunters, which encompass the largest portion of the hunters among the coastal settlements. Like most villagers, they have no money to buy a boat and a motor. They cannot become members of hunting communities because of the limit on the number of community hunters by subsidy. For hunting, they use only what they can make from improvised materials, as in the pre-contact era (i.e., seal nets,

harpoons, spears, sleds, etc.). During the winter and spring, the villagers mostly fish, but less often, they hunt for seals and, very rarely, for polar bears. In the fall, several individual hunters join “community members” or “informal hunters” to hunt walrus or whale in order to get their share of meat and blubber.

3. Whaling

As mentioned earlier, there are 21 indigenous villages on the coast of Chukotka where whaling has been restored since 1994 (Blokhin and Litovka 2014: 72). In seven of them, whaling is temporarily absent but, during the 2000s, a small number of whales were harvested. The whaling season of Chukotka varies depending on the presence of sea ice. Typically, on the Bering Sea coast, it starts a month earlier than the Chukchi Sea coast that, which normally starts in May (Blokhin and Litovka 2014: 76). In the area of “Syreniki” polynya,” the sea is usually free from ice all year round. Because of this, the whalers of the village of Sireniki are the first in the region to begin the whaling season—sometimes they landed bowhead whales in April. Only federal regulations limit whaling here throughout the year, for safety reasons.

The next hunting community to start whaling season is Lorino, located inside of Mechigmen Bay. Recently, they harvested their first gray whale during early June. Currently, due to the absence of multi-year ice, the sea is free of ice almost year round. Therefore, local whalers began to harvest their first gray whales in early May (Grigorieva 2018). On the Arctic coast, despite the fact that the sea here is free from ice also about a month earlier—that is, around June—fast ice is attached for some time along the coast.

Whalers need to haul their boats on sea ice and, therefore, they are limited in harvesting whales at this time of year. Hence, some hunting communities prefer to harvest the migrating walrus first, and whaling has the second turn. This is a useful strategy for the continuous provision of settlements that use the meat of marine mammals. Normally during the summer, while there is no ice on the sea, only gray whales feed near the villages and whalers harvest these animals to gradually and regularly fill the villagers’ refrigerators. On the Arctic coast there are also bowhead whales at this time, and local whalers occasionally harvest one such animal.

The hunt for gray whales takes place in September-October because the whales are at their greatest in numbers and are significant in terms of the accumulation of food stocks for the winter. The sea is still relatively calm at this time of the year, while the air temperature fluctuates around 0 degrees Celsius. These are ideal conditions for whaling and the preservation of whaling products in the absence of industrial freezers. Rare personal ice cellars, and even wooden storerooms, are able to preserve whale meat and fat for winter. Several whaling communities of the Bering Sea continue to hunt gray whales until early December (Blokhin and Litovka 2014: 76). Sometimes they also land one bowhead whale. Whaling is limited with the advent of winter storms. As mentioned earlier, in recent years there is no multi-year ice, and the sludge gradually freezes during December, even on the Arctic coast.

The decision of when to start whaling is governed by the chairmen of the hunting

community. The basis of these intentions is the number of whaling quotas and the amount of state subsidies that provide the hunting community with salary, fuel, ammunition, etc. However, there are other circumstances that affect the choice of the chairman. The need for whale meat varies among indigenous villagers throughout the year. In coastal communities during spring and early summer, there is an abundance of seal meat and walrus. Hunters land a small number of gray whales in order to diversify the diet and provide villagers with a desired delicacy, like whale skin. In the summer, walruses and seals migrate after sea ice and meat stocks are depleted. Fish is the only main source of traditional food available to villagers. For people whose culture is built on the consumption of marine mammals, this is a difficult period. The significance of gray whales as an animal protein source is increasing. The distribution of these animals in the shallow waters of the Chukchi Sea and the Bering Strait is characteristic of the summer ice-free period (Blokhin and Litovka: 2014). Hunting for a gray whale is intensified and limited only by the amount of meat that can be stored in domestic refrigerators. Finally, as mentioned above, the autumn whale hunt provides coastal settlements with whale meat and skin for the winter. Whaling statistics display that consumption of whale meat varies not only from the time of year, but also the location of indigenous settlements. The largest consumers of gray whale meat and skin live in Lorino, Inchoun, and Lavrentia, while in Sireniki, villagers prefer bowhead whale foodstuffs. In other villages, whale skin is valued, but it seems that they favor walrus or seal meat.

There are also other considerations that the hunting community leaders take into account when deciding on whaling, such as current and short-term weather forecasts, ice conditions, and the presence of whales and their activity, such as migration or feeding.

Hunters acknowledge the sea a source of life and potential danger, and they should always have information about it. From childhood, Chukotka whalers are accustomed to constantly observing the sea. In the coastal villages, hunters and elders regularly watch the surface of the sea with binoculars. Whalers survey the sea wherever they are: in the village, at a hunting base, in a boat, or among the ice. They exchange the results of observations at morning meetings in the hunting community office, contact during the day, and, in the case of remarkable observation, even late in the evening. During polar day, the light and dark time are divided conditionally. In this way, the community continuously gathers information and prepares whaling plans.

3.1 Whaling Methods

The twenty-first-century method of Chukotkan whaling has retained the foundation developed by the ancestors thousands years ago. The technique is based on the invention of a toggled-head harpoon. According to Arutyunov and Sergeev (1968: 74), whalers in the culture of the Old Bering Sea used “a large toggle harpoon head” and “its size indicates that it was designed for whaling.” The innovations were so unique and optimal that they remained almost unchanged for two thousand years. According to Rousselot et al., whaling “techniques [toggled-head harpoon and buoy] used by Siberian and Alaskan whalers of the Punuk and Thule cultures in the 7th through 13th centuries were the most

advance in the world at that time” (1988: 163).

Nowadays, hunters also use a toggled-head harpoon connected by a line with a buoy, to mark the whale, limit its speed of movement, and the ability to dive into the sea. To harpoon a whale, several boats following each other approach the animal in turn. The first harpooning can strike any place on the whale body. The main objective of the first buoy is to tag the whale. A bright color buoy indicates the location of the whale from afar, and it becomes easier to pursue it. Other harpoons are thrown into the back of a whale. After the first boat harpoons the whale, the team returns to the end of the row of boats and prepares the next harpoon and buoy, while the second boat harpoons the whale. The boats circle in this order until they attach enough buoys to make sure that the whale does not sink after death. The circular formation of the boats ensures fast harpooning and the safety of whalers. If the harpooned whale attacks the boat, other boats can help the capsized boat and the whaling crew. The number of buoys attached to a whale depends on the size and weight of the gray whale. An average of six to eight buoys per whale are used.

The boats then make several shots from darting guns and 7.62mm rifles (IWC n.d.b). In an effort to kill a whale, hunters shoot at the head, heart, and lungs of a whale. The order of the shots on the whales is the same as with the harpooning, that is, the boats circle around the whale, coming up one by one, changing the crew that completed the shooting.

The leading whaling weapons are darting guns. The Chukotka whalers reduced the standard charge of gunpowder by designing the projectile for the large bowhead whale body so that it passes through the gray whale body. Another modernization made by local whalers is that they use only a solid metal shell instead of the standard projectiles with black powder. 7.62mm carbines are the standard weapon of Chukotka hunters and are often used in whale hunting. Sometimes two to three successful shots from a carbine can kill small gray whales. Whalers still sometimes use spears, if the ammunition runs out, so as not to lose the whale.

The darting gun's standard black powder projectile shoots into the hull of the whale, where the heart is. Hunters use locally made metal projectiles for darting guns, as well as carbine bullets, to shoot at the head, mainly at the base of the skull. Carbine bullets are also shot at the whale's lungs. Spears pierce the heart and sometimes the lungs.

Chukotka whalers determine the time of the death of a gray whale from the moment the buoys were frozen motionless on the surface of the sea. Whaling statistics indicate that the time from the first strike on a whale to its death has decreased significantly in recent years, as well as the amount of ammunition spent on killing whales. A lot of work for this was done jointly by the USA and Russian delegations to the IWC. Alaskan and Chukotkan whaler leaders held meetings and trainings on this topic. The Alaska Eskimo Whaling Commission consistently donated darting guns to the Chukotka whalers. However, the last time darting guns were bought the Chukotka government. The whalers, themselves, are motivated to land whales as soon as possible due to the harsh and unpredictable weather conditions of the Bering Strait region and the small whaling boats they use.

3.2 Whaling Crew Composition

If darting guns and carbines were quickened, facilitated, and secured, then subsequent sociocultural changes and technical innovations could begin to make changes in the social organization of Chukotkan whaling. The transformation of independent hunters into hired workers, the use of outboard engines instead of oars and sails, the subsequent increase in engine power, and the replacement of wooden boats by the aluminum boats have reformed the structure of the whaling crew over the past century.

Traditionally, Chukotka whalers exploited large skin or wooden boats from 9 to 12 meters long, in which there were six to eight hunters (Bogoras 1904: 127). In the middle of the 20th century, wooden boats with low-powered outboard motors began to prevail, and hired crews of villagers replaced the kin organization of the whaling team. Nevertheless, it was still a slow boat. A large crew would occasionally use paddles and sails, and the whale hunt would take a long time. Despite, the social upheavals, the crew structure and its social base, with some minor adaptations, were the same as in the Bogoras times. This meant that the link between the generations of whalers was stable, and traditions were passed down from elders to younger ones. This type of whaling crew survived until the end of the 20th century (Bogoslovskaya and Krupnik 2008: 172).

The aluminum boats with powerful outboard engines have formed a new type of crew, which now consists of three to four members (IWC n.d.b). A more experienced hunter, who is not always an elder with traditional knowledge, is usually the captain and the helmsman, and the harpooner and shooter are young and strong hunters. These teams are equipped with digital navigation tools, mobile communications, and use online weather forecasts for whaling. The success of whaling with novelties has increased significantly and has also affected the modern-day hunters approach to the traditional way of whaling. The price of adapting to the world of modern technologies and the high efficiency of whaling has been the reduction of the role of traditional knowledge and the sacred connection between the sea and man. Currently, some signs indicate that, for young whalers, the sea is mainly a source of food and income. While in the past, there were no dichotomy between human being and nature. Consequently, the sea was the habitat of “other peoples,” such as bears, whales, walruses, and seals (Bogoras 1907a: 283–285). In accordance with traditional beliefs, the marine “peoples” share their flesh with the villagers, so the villagers always thanked the souls of marine mammals for their generosity and returned piece of the bodies to the sea (Tein 1984: 6).

3.3 Whaling Communities Challenges

Climate change is the most likely cause of challenges for local whaling. Mechigmen Bay is known for the “stinky whale” phenomenon (Rowles and Ilyashenko 2007). Here, whalers annually landed a few gray whales, whose meat and fat have a specific unpleasant odor, and the taste is so ominous that even dogs refuse to eat this meat. Local whalers, in order to reduce the number of harvested “stinky whales,” try to identify a potential “stinking” whale before harpooning. To do this, the hunters approach close to the feeding whales and try to catch the smell of the whale fountain. If the smell is good, the whale hunt begins. Sometimes, even after such a check, the “stinky whale” still

lands. However, whalers will know about it already during the butchering of whales.

In the last decade, indigenous communities have noted the absence of perennial ice, the sea freezes in December even on the Arctic coast and the ice disappears one to two months earlier. Evidently, this affects the food chains, and the mode of migration of marine mammals near whaling settlements. In Cross Bay, at the entrance to which the national settlement of Uelkal is located, a large number of humpback whales are feeding during the summer now, while gray whales have become noticeably smaller. Local whalers have to search for hours for a gray whale to begin the hunt.

The shifting of marine mammals, such as seals, walruses, and whales, following the sea ice to the north, was likely the cause of an increase in the number of killer whales in Lavrentia Bay. Killer whales now intervene much more frequently in whaling than in previous years. The whalers are forced to drive away the killer whales in order to avoid the loss of the harpooned gray whale. It is likely that modern whalers either do not know or do not consider it necessary to observe the special attitude of the coastal peoples to these animals. According to Bogoras (1907a: 324), the killer whale plays an important role in the mythology of the region and is protected by taboo.

In the Bering Strait, the traffic of ships has increased, and hunters observe wounded whales after their collisions with ships. Adaptation to a changing climate, fluctuating seasonality, and the migration routes of marine mammals affect the life of modern whaling communities.

4. Butchering and Distribution of Whaling Products

The Chukotkan whaling and distribution of its products is governed by international, federal, and regional legislation. Because the whaling is designed to meet the cultural and nutritional needs of the indigenous people, customary law is also taken into account. In accordance with international and federal laws, whaling in the Bering Strait region is the exclusive right of the Chukotka indigenous people and Alaska Natives (IWC n.d.a). The regional government provides subsidies for whaling to a limited list of registered hunting communities (Lobanov 2010). Hunting communities are obliged to provide villagers with the meat and fat of marine mammals.

Authorities and hunting communities use elements of customary law regarding the distribution of whaling products. The quota is given to the hunting community for the free provision of traditional food to the entire indigenous population of the settlement. It would seem that whaling teams are the owners of whaling products. This is consistent with customary law, but since most whalers are hired workers, it appears that the regional authorities are the owners of the hunting products distributed. However, the regional authorities cannot claim this because the quota is allocated to the indigenous people. The lack of regulation of property rights causes uncertainty in the social order and is the reason that each settlement itself decides to whom the products belong. In a sense, this is reminiscent of the rules of customary law, in which everything rests on the traditions of a common view of justice. In fact, in each village, the role of the owner is determined by the personal characteristics of the hunting community's leader.

The number and composition of participants for butchering whales depends on the size of the hunting community and the village. This is due to the fact that the whale dressing process is not mechanized, requires a lot of people, and has essentially retained its original basis. This means that when whalers land whales on the village, everyone comes ashore to cut off as much meat, skin, and fat as they need. There are a small number of villages where whalers butcher the whales themselves, while the villagers are waiting for their share of meat and fat. For example, in Lorino, there are more than 40 whalers, so they have enough people to butcher the whales without the villagers' help. Whalers of New Chaplino and Lavrentia butchered harvested whales themselves from time to time, because they landed the animal on remote hunting bases.

Chukotka whalers land an average of 124 whales per year for 21 settlements (Figure 1) (IWC n.d.b). In seven of these 21 settlements, not a single whale has been landed in recent years. There are also three villages in which only one or two whales per year are harvested. The largest proportion of gray whales is harvested in Lorino, where more than 50 animals land each year (Borisenko: 2015). There are also two villages that land more than 20 whales a year. It turns out that these three villages land more than half of the region's quota. About half of the indigenous populations of the Chukotsky district live in those villages.

In most coastal whaling villages, the average population is about 400 people. A typical quota for this village is between four and five gray whales. This means that during the whaling season, each villager is able obtain 30 to 50kg of meat and fat from each landed gray whale. In order to bring this amount of whale meat, residents must go ashore as soon as the whale lands, due to the fact that whale products are distributed in

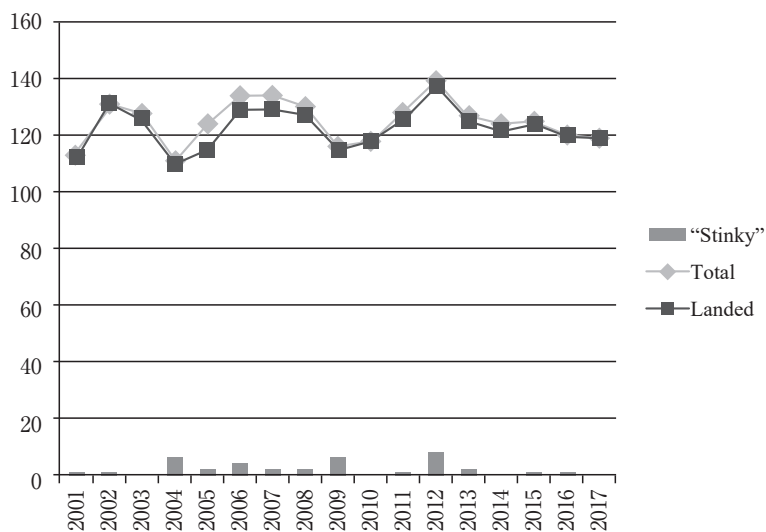


Figure 1 Catches of gray whale in coastal Chukotka waters, 2001–2017.
(Source: IWC n.d.b)

Table 1 Consumption of traditional subsistence results (kilogram, average per family); numbers are calculated based on surveys.

Year	2010	2011		2012
Zones	III-IV Consumed 43	III-IV Stored 43	All zones Consumed 111	All zones Stored 111
N				
Walrus	600	259	253	131
Ringed seal	267	56	112	53
Whale	192	34	101	63
Fish	142	68	115	74
Reindeer	51	22	89	43
Polar bear	22	2	4	3
Game birds	18	5	19	6
Hare	6	2	17	8
Wild plants and mushrooms	16	9	28	19
TOTAL	1313	457	737	399

(Source: Kochnev and Zdor 2016)

accordance with the custom of “first come, first served.” However, there are a couple reasons contributing to the relatively equitable distribution of whaling products, such as the custom that whalers are obliged to provide whale meat to relatives and elders who are absent when cutting up whales. In summertime, villagers do not have the technical ability to store large amounts of whale meat in their home ice cellar and refrigerator. This limits the villagers from obtaining a larger proportion of whale meat than they can eat in the near future (Table 1). It appears that customary law and technical restrictions contribute to the gradual whaling of the year and the fair distribution of the whaling’s products.

4.1 Butchering

The process of butchering and distributing a whale is about the same for all Chukotkan villages. The flukes on the whale’s tail are cut off after rising to the surface of the sea while the animal is being prepared for towing. Most whalers are convinced that flukes should be cut to facilitate towing. For the same reason, the pectoral fins are tied to the whale’s body. The flukes are a tasty and high-calorie food that is available to whalers while they tow the whale to the coast. On the seashore, flukes are divided only among whalers in accordance with the custom prevalent throughout the Chukotka coast. Some whalers claim that the entire whale tail, and not just flukes, is the privilege of the whalers, although the meat in this part of the whale is tough. The entitlement of whalers to other parts of a harvested whale is interpreted differently. Some hunters believe that they also have priority on the tongue, heart, and the most tender meat spots on the whale. Others claim that they do not have this right, and all parts are distributed between whalers and villagers in a random order during the butchery of whales.

Here is a typical procedure for butchering gray whales. First, whalers cut off skin and fat in strips about a meter wide from top to bottom along the body from head to tail. Then the villagers cut these strips into smaller square pieces so that it is convenient to

transport, process, store, consume, and exchange. After cutting off the skin and fat, the whalers cut the meat into shorter strips than the skin. In those settlements where all the villagers take part in the butchering of the whale, there is no coordinated sequence. Each villager takes a place near the whale and cuts off pieces of skin and meat on their own, helping the neighbors to do their work. Having finished cutting one side of the whale, the whalers remove the ribs and cut out the internal organs. At the next stage, the whale is turned over, after which the remaining skin, fat, meat, and ribs are cut off. Sometimes the whale's internal organs are cut off only at the end of the butchering. At the end of the butchering, only the head and spine of the whale lies on the beach. Late villagers cut meat from the spine, head, and ribs until late at night. The remains of whales sometimes lie on the beach for several days and village dogs feast on it. The next day or a few days later, the whalers push the remains of the whale into the sea. In some villages, probably due to the peculiarities of the local sea current, the remains of whales are not pushed into the sea, but are taken to the outskirts of settlements.

4.2 Consumption

The consumption of whale products preserves the traditions of Chukotka's indigenous cuisine. Skin, fat, meat, and internal organs are eaten raw, boiled, frozen, dried, or fermented (Tein et al. 2008: 177–178), as was typical of local cuisine more than a hundred years ago (Bogoras 1904: 193). Whale skin is a recognized delicacy. Meanwhile, the processing of whale products has become another indicator of the changes taking place in indigenous communities. Villagers adapt local cuisine to fluctuating food supplies. It depends on the seasonality and migration routes of marine mammals, as well as their abundance. The number of store foods delivered to the local villages and their cost also contribute to the composition of local diets. World culture similarly influences traditional cuisine. Meals for children in boarding schools, local cuisines and fast food while traveling around the world, advertising on the Internet and on television influenced food habits and food culture. Under these effects, villagers westernized their traditional cuisine (Yamin-Pasternak et al. 2014). Currently, the skin and meat of whales are salted, pickled, and smoked. This is already a trend for indigenous people around the world to make food adapted to the global cuisine.

5. Ceremonies and Traditions

Nowadays, the traditional religious ceremonies are still a persistent phenomenon and an integral part of the Chukotka traditional subsistence. Aboriginal whaling is an extreme type of activity that determines the foundation and preservation of specific rituals and traditions. According to Sadovskaya (n.d.), the rituals and holidays of modern hunters repeat many traditions of the indigenous people of Chukotka. However, in modern rituals there are differences due to socio-cultural changes in the communities of the Chukotka indigenous people. Soviet propaganda of atheism, the pursuit of shamanism (Tein et al. 1994: 124), and compulsory boarding schools caused a gap between generations and broke the mechanism for the transfer of traditional knowledge. The re-Christianization of

the region in the 1990s also contributed to the alienation of local people from their traditional rituals (Oparin 2012). There has been more than a 20-year break in the history of Chukotkan whaling, which also contributed to the destruction of traditions. According to Krupnik, the villagers last caught gray whales in the early 1970s (1987: 28), and the resumption of independent whaling occurred in 1994 (Blokhin and Litovka 2014: 75).

The renaissance of indigenous whaling was accompanied by the revival of traditional ceremonies and holidays. Thanks to oral knowledge, older generations in some families have kept sacred traditions and family amulets for their heirs (Oparin 2012). In 1991, for the first time after a long break, a whale day was held in Inchoun. The celebration was reassembled according to the stories of residents of the neighboring village of Uelen where, in the 1950s and 1960s, many Siberian Yupik were resettled from Naukan and other villages. Since 1992, the festival of marine hunters “Beringia”, named after the Old Bering Sea culture, has been held annually in various villages of the region. According to Sadvovskaya (n.d.), this festival is based on the traditions of the Yupik Whale Festival “Pol’ya,” but, in reality, the key event of the holiday is the skin-boat competition. In other words, in former times the festival was held because whaling was a unique event and provided the village with plenty of food (Bogoras 1907a: 407; Tein 1984), while today, whalers go to sea to provide skin-boats competition with a festival of local cuisine.

The essence of the whale ceremony is to thank and return the soul of the whale to its original habitat. For this, it is necessary to meet the “guest” with fresh water on the shore, utter a prayer of thanks, and return the whale (small pieces from the flippers and the flukes) back to the sea along with the incantation (Tein 1984: 6–7).

There are other signs of change in modern rites. Public ceremonies today are actually a folklore performance, or what Pimenova (2015: 128) described as “theatrical shamanism.” Real contemporary ceremonies are not public, although they are not hidden from other villagers (Oparin 2012: 205). The ritual to the soul of a harvested whale most often occurs already during the butchering of the whales or shortly after the end; whereas, in earlier times the ceremony began immediately after the landing of the whales (Bogoras 1907a: 407; Tein 1984: 6). In some communities, the ceremony is held only when the whale carcass is returned to the sea.

The changes that have occurred in the ceremonies dedicated to the whaling are in fact a reflection of the alterations that have occurred in the modern indigenous communities of Chukotka. In general, the presence and identity of the indigenous people of Chukotka is still highly dependent on the knowledge and skills of whalers, as well as the preservation of traditions and ceremonies that strengthen indigenous communities.

6. Concluding Remarks

The comparison of whaling methods, described by archaeological studies of the Old Bering Sea culture and ethnographic studies of the regional coastal communities in the past two centuries, indicates that the modern Chukotkan whaling has retained the basic patterns developed by local people at least 2,000 years ago. Indigenous people of Chukotka have sustained traditional knowledge of the biology and behavior of whales, as

well as their habitats. Older generations, in spite of the continuous process of merging global and local cultures, keep and transfer traditional knowledge and skills to the young. Whalers and their families continue to use the rituals and ceremonies associated with whaling. Local communities have shown high adaptability to the sociocultural changes that have taken place, while remaining committed to the traditional way of life. However, the merging of cultures is reflected in the daily life of indigenous communities. Whaling, the consumption of whaling, and ceremonies dedicated to whaling are gradually evolving due to the impact of the society into which local communities are incorporated.

Nowadays, the reason for these transitions is the endeavor to alleviate the extreme conditions of whalers and ensure their safety, while remaining committed to the traditional way of life. This activity has a dual effect on whaling communities. Whalers are no longer solely dependent on traditional ecological knowledge to go whaling. Modern technologies provide the villagers with an online weather forecast and other information that contributes to the safety of hunting. However, the experience, knowledge, and continuity of generations are still essential in whaling. Traditional hunting equipment has not changed much for at least the last century. Whalers use boats of similar sizes, harpoons, carbines, darting guns, spears, and buoys. Some components used for the manufacture of hunting equipment have changed. Ropes made of bearded seal leather and buoys of sealskin were replaced with plastic counterparts. The main whaling boat is an aluminum boat, although leather kayaks are still used for seal harvest. These innovations significantly facilitated present whaling, made it safe, and helped to reduce the time for whale hunting.

The structure of the whaling crew has reformed due to modifications in the design of the whaling boat. That is, instead of seven to nine crewmembers that were in skin or wooden boats, typically only three to four crewmembers are needed for the aluminum boat used today. This has produced challenges for maintaining the continuity of generations in whaling. One experienced captain among the young team is probably effective for hunting, but it is not enough to ensure the constant and gradual transfer of traditional whaling knowledge. A few decades ago, the whaling team was age balanced; all ages, with a predominance of mature middle-aged hunters, were represented on the whaling team. This age structure of the crew ensured success, safety, and the transfer of traditional knowledge. Hunting communities are well aware of this and are looking for options to maintain balance. They use hunting camps outside the settlements, combine several boats into one whaling unit, and pay the oldest crewmember a salary for mentoring. Adaptability to external influences, while maintaining adherence to traditions, is a unique feature of modern-day Chukotkan whaling.

Changes in the social organization of whaling communities did not significantly affect whaling practices. This is indicated by the similarity of today's whaling methods with ethnographic descriptions of the 19th and 20th centuries and archaeological information about whaling equipment used by hunters in Chukotka over the past two millennia. The toggled-head harpoon, spear, and knife are still important equipment used in whaling. Their use determines the whaling method and the Chukotka indigenous people way of life. Towing a harvested whale also preserves the original way. Even with

modern aluminum boats, Chukotkan whaling teams, as in the past, must join forces to bring the whale to the settlement. Several whaling boats tied in a line jointly tow the whale to shore. The technique of butchering a whale is almost the same as in the distant past. There is only one difference: today, mainly tractors pull whales to the beach. In some villages, sometimes only the villagers haul their whales ashore using rope tackles.

Another difference is predetermined by the uncertainty of who owns the landed whale. Since the hunting community members and the settlement's inhabitants can fit in this status, there are different options for participants in butchering the whale in different villages. It can only be whalers or it can be all the village inhabitants. It even happens that whalers only bring the whale ashore, and the villagers themselves do the butchering. A similar ambiguity occurs in the distribution of whaling products. Sometimes it happens that the chairman of the whaling community claims to control the distribution of meat and skin, or, in contrast, there is no person who controls the distribution of meat and skin. However, this vagueness in the distribution of the whaling product may be a sign that either the former rules of customary law are being reestablished or new ones are being invented.

Ceremonies and traditions dedicated to successful whaling are held in many villages. Rituals differ from what is described in ethnographic studies even in the middle of the last century. This is a kind of mixture of ceremonies reestablished from the memory of older generations of villagers, ethnographic descriptions, and personal family ceremonies extrapolated to whale rituals. This process fully fits into the concepts of tradition, preserved only by oral transmission. In the collective memory of the traditional communities, only that which the oldest villagers remembered could be preserved. Traditions are considered as traditions as long as the current generation of participants thinks of them as such, but today there are a lot of other sources of information affect their minds.

International and federal laws regulate traditional subsistence in order to preserve the identity of indigenous peoples and contribute to the well-being of coastal indigenous communities. Today's Chukotkan whaling, as in previous times, is the pinnacle of ancient hunting art and provides the cultural and nutritional needs of the indigenous people of Chukotka. Sea is a basic food source for coastal communities and a key agency for drawing their sociocultural patterns. The contemporary villagers obtain subsistence-oriented knowledge by combining three substantially different ways: traditional knowledge of older generations, personal observations, and globally accepted information. Modern indigenous communities, despite significant climatic and unprecedented social shifts that have changed languages, social organization, and worldview, have effective traditional whalers who are able to "feed their families," as their ancestors did. It is evident so far that the collision of local and global did not lead to unlimited domination of one side. Most likely, because whaling communities continue to use centuries-old rationality and adaptation strategies to survive and maintain their identity.

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