

THE OKHOTSK CULTURE AND THE FRONTIERS OF JAPANESE PREHISTORY

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INTRODUCTION

Archaeology in Japan began with the establishment of a modern nation-state in the Meiji era (1868-1912). After more than two centuries of self-enforced isolation, Japan began to expand and acquire a colonial empire, formally incorporating Hokkaido (1869), the Ryukyus (1879), Taiwan (1895), southern Sakhalin (1905) and Korea (1910), followed by other areas in China and the Pacific. Japanese archaeologists used this colonial period to conduct research which attempted to fix Japan's cultural and historical position in the wider Asia-Pacific region (Oguma 2002). After 1945, however, the end of empire set archaeology on a different road towards a more inward search for the kernel of Japanese identity. In recent decades, there has been increasing communication between archaeologists in Japan and surrounding nations, but the legacies of war and colonialism continue to hamper such links (Nanta 2008).

From the 1980s, historians such as Yoshihiko Amino (2012) developed new, 'de-centered' perspectives on premodern Japan (see also Denoon et al. 1996). Although this work had some influence on archaeology, debates over the nature of 'prehistoric Japan' have remained more conservative than in history. Amino emphasized the importance of precision in language and the avoidance of anachronistic terminology. Following his lead, most archaeologists now talk about the 'Japanese Islands (or archipelago)' rather than the anachronistic 'Japan'—a name which only came into use from the late seventh century AD. However, other, less appropriate terminology, such as the prewar *waga kuni* ('our country'), is still widespread. The fundamental question here is what sort of unit the Japanese Islands comprised in prehistory. In terms of climate and natural environment, there was certainly great diversity across the archipelago. Biologically, populations of the Jōmon period appear to represent a very old east Eurasian branch of humanity which remained quite isolated until the influx of Yayoi farmers in the first millennium BC (Kanzawa-Kiriyama et al. 2017). The geographical boundaries of these Jōmon populations are not yet clear and it cannot be assumed *a priori* that they correspond with the distribution of Jōmon pottery. Linguistically, it seems beyond doubt that there was considerable diversity across the archipelago prior to the arrival of Japonic in the Yayoi period. In Japanese scholarship, the diversity of early Japan is masked by continued use of archaeological 'cultures' as a proxy for historical periodization. The culture concept is homogenizing and conveys the impression that a whole 'package' is shared over time and space. Archaeological cultures are of course defined on the basis of shared traits, but when talking about the 'Jōmon culture' or the 'Jōmon period', we must not forget to include the possibility of non-Jōmon cultures and peoples within those categories. In this respect, terms like 'Neolithic' or 'Iron Age' may be more permissive of ethnic and cultural diversity.

The diversity of Japanese prehistory comes into particularly clear focus at the northern and southern frontiers of the archipelago. Both Hokkaido in the north and the Ryukyu Islands in the south were home to archaeological cultures which differed significantly from those of the central islands of Honshu, Kyushu and Shikoku. The cultures of the north and south

developed in part as adaptations to the environmental conditions found in their respective regions, but they are also characterized by broader historical relationships, both with central Japan and on a more global scale. Throughout prehistory, Hokkaido seems to have always been open to cultural and population inputs from further north and can be said to form what historian Bruce Batten (2006: 16) calls a *frontier*, a ‘vague, spatially diffuse division between social groups’. The Ryukyu Islands also comprised a frontier in this sense during the Palaeolithic and again from the Middle Ages onwards (Kaifu et al. 2015; Pearson 2013). In the Holocene, by contrast, there seems to have been a much more rigid *boundary* (in Batten’s terminology) between the cultures of the Okinawa and Sakishima archipelagos, even although almost identical subsistence practices straddled this boundary line (Hudson 2012).

This chapter discusses one of the most dynamic cultures of the Hokkaido frontier zone, the Okhotsk, which was distributed across southern Sakhalin, the western and especially eastern coasts of Hokkaido, and the Kuril Islands from around AD 500 to 1200. Three main themes of expansion, resilience, and globalisation are discussed. The essay is lightly referenced; more detailed discussion of the Japanese literature can be found in Hudson (2004, 2017a).

POSITIONING THE OKHOTSK

From the first discoveries in the early twentieth century, it was recognized that the Okhotsk was unlike other archaeological cultures in Japan. A low-fired, somewhat brittle earthenware, Okhotsk pottery differs from both Epi-Jōmon and Satsumon ceramics found elsewhere in Hokkaido. Many skeletal remains of people of the Okhotsk culture have been excavated. These skeletons typically have large crania with high faces, flat nasal bones, and large maxillae, mandibles and zygomatic bones. Analyses of cranial metrics and nonmetrics, and of limb proportions, have shown that these skeletons mostly cluster apart from Epi-Jōmon and Satsumon populations and instead show similarities with the Amur and surrounding regions of Northeast Asia, a finding which supports an origin for the Okhotsk culture to the north of Hokkaido (Ishida et al. 1994).

The clear ‘outside’ origins of the Okhotsk made it difficult to position and incorporate its ‘otherness’ within the overall narrative of Japanese archaeology (Hudson 2017a). In this respect, non-Japanese scholars often found it easier to link the culture with broader trends in Northeast Asian or North Pacific prehistory. The Okhotsk attracted early attention from North American researchers such as Benu and Chard (1964) as an example of a maritime culture possibly related to other North Pacific hunter-gatherers such as the Aleut and Alaskan Eskimos. William Fitzhugh gave the name ‘Okhotsk type’ to a sub-division of the Northern Maritime Adaptation, which he defined as ‘a general culture-ecological pattern in which the economic base and general cultural orientation is partially or wholly dependent on coastal and maritime resources of the northern littoral’ (Fitzhugh 1975: 343).

This North American research played an important role in bringing attention to what are without doubt the very maritime aspects of the Okhotsk economy. Russian scholars, however, have tended to take a somewhat different approach, emphasizing similarities between the Okhotsk and other Iron Age cultures of Northeast Asia. Material culture parallels here are common enough that Deryugin (2008) raises the possibility that the Okhotsk was a multi-ethnic culture, a series of local expressions of a broader pattern.

In Japan, in addition to the important work of archaeologists, historians such as Toshihiko Kikuchi have also made a major contribution through their analyses of early textual records. For example, the *Yuan shi*, the official history of the Mongol dynasty, describes the ‘Jilimi’ people living on Sakhalin as having already submitted to Mongol rule but being subjected to attacks by the ‘Guwei’. Historians have linked the Guwei with the Ainu and the Jilimi with the Nivkh (earlier known as Gilyak) (Wada 1938). Some archaeologists have also suggested a link between the Okhotsk and the Sakhalin Nivkh. The *Yuan shi* describes events at the end of the Okhotsk period. Several centuries earlier, the *Tongdian* and other texts of the Tang dynasty mention a people called ‘Liugui’. Recently, Kikuchi (2009) has proposed that the Liugui can also be linked to the Okhotsk culture of Sakhalin. Although such identifications are not without problems, this research by Kikuchi and others has shown that the Okhotsk can be studied within the framework of the medieval Chinese oikoumene.

THE OKHOTSK EXPANSION

Why did Okhotsk groups move from Sakhalin to Hokkaido and then to the Kuril Islands? Was this the expansion of a farming population due to demographic pressure? Or were the Okhotsk primarily hunter-gatherers moving in search of new resources or trade? Other factors—such as the role of climate change—must also be considered, and the opposition between subsistence and trade may anyway be overdrawn (Sherratt 1999), but further research is required before we can answer these questions with any confidence.

The Okhotsk shared a Neolithic heritage with other groups in Northeast Asia who kept domesticated pigs and grew cereals such as millet and barley. Millet agriculture began in the southern Russian Far East by around 3500 BC (Kuzmin 2013). Domesticated pigs appear a little later and are followed by horses and cattle in some areas (Kuzmin 1997). Chinese historical records also mention the cultivation of millet, buckwheat and other crops, as well as the raising of pigs in this region (Wada 1938). Despite this broad Neolithic heritage, however, both the archaeological and historical records show that hunting, fishing and gathering remained important in later Northeast Asian subsistence patterns. Vostretsov (1999) proposed a model wherein groups cycled between farming and foraging depending on climatic conditions. Although Kuzmin (2013) has critiqued the chronology of Vostretsov’s correlations, it seems probable that many of the groups concerned did indeed balance elements of their economy depending on climate and other factors—but this was perhaps done in a more flexible way than Vostretsov’s model suggests.

The Hokkaido Okhotsk appears to be just such an example of a Northeast Asian culture with a flexible economy. Pigs are known from at least six Okhotsk sites in Hokkaido and ancient DNA evidence supports the conclusion that these pigs were introduced via Sakhalin (Watanobe et al. 2001). Radiocarbon dating of barley (*Hordeum vulgare*) seeds recovered from the Hamanaka 2 site on Rebun Island has shown that this cereal was utilized between AD 440 to 890. It is not certain if this barley was grown locally or imported, but pollen analysis of deposits from Lake Kushu on Rebun suggests that local cultivation is a possibility (Leipe et al. 2017). Remains of barley and foxtail (*Setaria italica*) and broomcorn (*Panicum miliaceum*) millet have been reported from four other Okhotsk sites in Hokkaido but have not been directly dated (Hudson 2004). Hoe-shaped objects made of bone found in several Okhotsk sites may have been used for tilling fields.

Although barley and millet have been reported from eastern Hokkaido, several lines of evidence suggest that the Okhotsk culture shifted to a greater—possibly even exclusive—focus on hunter-gathering over time. Most notably, pigs are not found in eastern Hokkaido, perhaps because, while pigs could be fed with fish over the winter in northern Hokkaido, winter sea ice in the east made fishing impossible over that season and there was little alternative winter feed available along the lightly wooded tundra of the Okhotsk coast. Taken as a whole, there is no doubt that the Hokkaido Okhotsk was characterized by a predominantly maritime foraging economy. Stable isotope analyses of Okhotsk skeletal remains have found high proportions of protein derived from marine animals (Tsutaya et al. 2014). Zooarchaeological investigations at the Kafukai A site on Rebun Island, estimated that 85% of calories could have derived from fish (Ohya et al. 1981). Atka mackerel, Pacific cod and herring were caught during their spawning seasons over the winter. Sea mammals were also widely hunted and were perhaps essential to the settlement of the eastern Sea of Okhotsk coast.

Iron and trade

Japanese archaeologists such as Takurō Segawa have recently emphasized the role of iron in the Okhotsk expansion (see Hudson 2017a). The increased availability of iron in Kofun-period Japan encouraged northern groups such as the Epi-Jōmon and the Okhotsk to move south in search of trading opportunities. While the Epi-Jōmon expanded vigorously from Hokkaido into northern Honshu, Okhotsk groups at first explored the coasts and islands of western Hokkaido, perhaps reaching as far south as Sado Island from where the *Nihon Shoki* records that in 544, ‘there arrived men of Su-shen in a boat, and staid there. During the spring and summer they caught fish, which they used for food. The men of [Sado] island said they were not human beings’ (Aston 1972: II, 58). Although the name ‘Su-shen’ used in this eighth century text is anachronistic, the picture of maritime groups exploring down the Japan Sea coast may fit the broad pattern of the early Okhotsk expansions. A DNA analysis of brown bear (*Ursus arctos*) remains from Kafukai concluded that bears had been transported to Rebun from southwest Hokkaido, presumably as cubs (Masuda et al. 2001), a finding which also supports the active presence of Okhotsk people down the west coast of Hokkaido. From the Aonae site on Okushiri island, we know that people of Epi-Jōmon ancestry were sometimes adopted into Okhotsk society (Matsumura et al. 2006). Other evidence suggests relations were not always friendly and, in the end, the Okhotsk culture was unable to establish a permanent foothold along the western coast of Hokkaido, perhaps forcing its occupation of the economically more marginal coasts and islands of eastern Hokkaido and the Kurils.

RESILIENCE AND THE END OF THE OKHOTSK

The Okhotsk culture in Hokkaido came to an end as a result of the quite remarkable expansion of late Satsumon/early Ainu groups in the first centuries of the second millennium AD (Hudson 2017b). Climate change was a further factor. The Late Okhotsk saw a period of warming from the eighth or ninth century, a stage which probably corresponds to the so-called medieval warm period (see Fitzhugh et al. 2016; Hudson 2004). Warmer temperatures can be assumed to have led to earlier break-up of sea ice and thus to reduced pinniped production and more dangerous hunting conditions on unstable ice (cf. Kelly 2001).

The end of the Okhotsk was rather different in the three main areas of Late Okhotsk settlement: north Hokkaido, east Hokkaido and the Kuril Islands. The northern Okhotsk centred on Wakkanai and Rebun and Rishiri Islands ended quite abruptly. It has been suggested that the groups concerned simply moved back to Sakhalin (Ohya 1975: 146), but other, more violent possibilities cannot be dismissed. In contrast to the apparent collapse of Okhotsk society in the north, in eastern Hokkaido there was a long intermediate period of reorganization involving extensive assimilation between Okhotsk and Satsumon cultures, a phenomenon known archaeologically as the Tobinitai (Ōnishi 2009). Tobinitai pottery adopted the everted rim and other features of Satsumon ceramics, which were in turn influenced by the Haji wares of Honshu. The large, multi-family houses of the Okhotsk were gradually abandoned in favour of smaller, more flexible dwelling structures. With respect to ritual practices, there was also continuity between the Okhotsk and Ainu periods, although the precise contours of this influence have been much debated. Even though the Okhotsk people raised domesticated pigs and dogs, animal ceremonialism was centred on wild animals. A ritual dog burial from an Okhotsk site in central Sakhalin is thus an unusual discovery not paralleled in Hokkaido (Uchiyama 2000). Okhotsk houses are famous for ceremonial bone mounds. Although bear bones figure prominently in these mounds, other species such as deer, marten, fox, sea lion, seals and whales are also present (Uchiyama 2006). Debate continues but these bone mounds are often connected to the later Ainu bear ceremony, with some specialists arguing that the Ainu ceremony in fact derived from the Okhotsk culture (cf. Watanabe 1974; Utagawa 1992). Finally, recent anthropological studies have proposed that there was significant intermarriage between Okhotsk and Ainu populations (Sato et al. 2007), a phenomenon which may have also occurred during the Tobinitai phase.

Resilience theory has increasingly been used in archaeology to understand major social transformations such as that from Okhotsk to Ainu. An important methodological contribution in this respect was made by Hegmon et al. (2008) who developed a series of 20 archaeological variables to measure the severity of social transformations as a proxy for resilience. Although a few of these variables relating to public architecture are not directly relevant to the Okhotsk, the others would all seem to display low values based on archaeological data from Ōnishi (2009) and other sources. In other words, the low ‘severity’ of the transformation from Late Okhotsk to Tobinitai suggests a gradual process indicative of high resilience in eastern Hokkaido.

In the Kuril Islands, the warmer climate of the Late Okhotsk did not initially prevent an expansion of settlements, perhaps in part because winter sea ice does not reach the coasts of the Kuril archipelago. After AD 1000, however, Okhotsk sites in the Kurils experienced a dramatic decline. As Okhotsk populations in eastern Hokkaido became assimilated with Satsumon culture, social networks between the Kurils and the final Okhotsk Tobinitai culture may have broken down, leaving the Kuril islanders in a hazardous environment where it was impossible to maintain settlement without long-distance networks (Fitzhugh et al. 2016).

GLOBALISING JAPANESE PREHISTORY

Archaeologists have recently developed a new interest in ‘globalisation’ (Hodos 2017). This term is used in different ways by different authors but provides a useful heuristic concept to think about the processes through which local events are impacted by distant currents of historical change. Some years ago, I proposed that a macro scale is required to understand the Okhotsk and attempted to use world systems theory to that end (Hudson 2004). I believe that

the world systems perspective still remains a productive way to analyse core-periphery relationships in the past. The idea of globalisation, however, gives us a less constrained path to explore the broader scale without necessarily committing ourselves to one method of analysis.

The concept of globalisation turns the Okhotsk from an exotic, ‘outside’ element of the prehistory of one part of northern Japan into something that is much more ‘central’ to the archaeology of Japan and the wider region. As briefly outlined above, we cannot begin to understand the Okhotsk without also understanding the ‘global’ processes behind the spread of farming and iron, and the trading systems which were rooted in state economies located thousands of kilometres away. Globalisation throws a spotlight on the *multi-centred* nature of many prehistoric interactions. Bausch’s (2017) study of Jōmon contacts between northern Kyushu and southern Korea, for example, demonstrates that we have to look at a much wider scale including *eastern* Honshu to understand those links. This, in turn, forces a shift in the way we envisage archaeological ‘cultures’. As well as representing different traditions or adaptations, cultures such as the Okhotsk, Epi-Jōmon and Satsumon can be seen as different ways of reacting to the same *shared* social and ecological conditions. A ‘global archaeology’ might thus focus first on those shared conditions rather than on the particular cultural expression. Of course, this does not mean that detailed analyses of pottery and other material culture are no longer necessary—in fact, such analyses are essential to understand how the global is expressed at the local level.

Globalisation also raises the question of periodisation and different temporalities. Should the Okhotsk be categorized based on chronologies used in Russian, Japanese or Chinese archaeology? Does the fact that each of those national chronologies might be very different (Metal Age, Ancient or Medieval) place undue emphasis on asynchronous trends? Could an alternative, more global framework shed new light on shared historical trends?

I end this chapter with an episode about the Liugui people who, as mentioned above, have been identified with the Sakhalin Okhotsk by Kikuchi (2009). Chinese texts record that a Liugui envoy reached the Tang capital of Chang’an (present Xi’an) in AD 640. When this envoy began his journey in the Amur region, he did not know how to ride a horse and fell off on his first attempt. As Kikuchi (2009: 37-41) explains, the inclusion of this incident in an official text was not necessarily an attempt to portray the Liugui as ‘country bumpkins’. Rather, at a time when horse-riding nomads were an ever-increasing threat to China’s stability, the fact that there were peoples in the far northeast who did *not* possess horses and yet had come to pay respects to the Tang was an attempt to globalise the relationship between China and its frontiers. This textual example of ‘reading globally’—seeing and hearing the global in the local (Heng 2013)—suggests ways in which archaeologists could also attempt to read artifacts in a more global fashion. Globalisation is one prism through which East Asian archaeology might move towards a decentred approach and transcend the legacies of colonial boundaries.

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