8
“Tribe” or “Chiefdom”?
Lost Possibilities of Ainu Society and Influences from Outside Worlds

Hideyuki Ōnishi
Doshisha Women’s College of Liberal Arts
honishi@dwc.doshisha.ac.jp

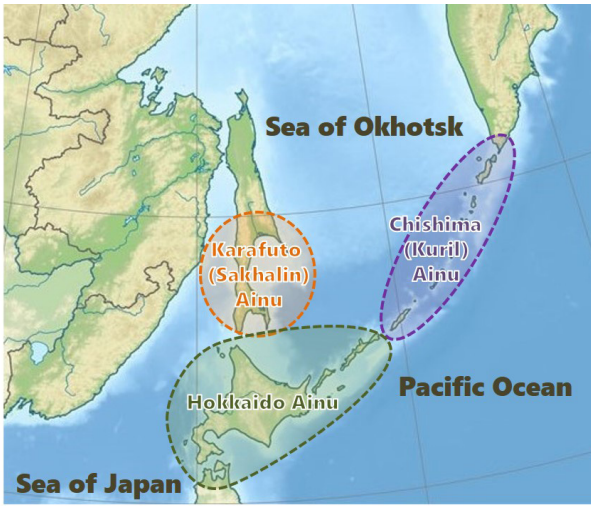
This paper is focused on the Ainu and the conventional understanding of them as foragers in Northeast Asia, examining the factors and processes that led to the formation of their pre-state society. While the Ainu was fundamentally a hunting-gathering-fishing society, extensive agriculture was also partially conducted. Ainu society never established a large-scale complex society such as a “chiefdom” or “kingdom”. These characteristics of Ainu society, however, were not necessarily shaped solely by internal conditions. Rather, external factors can be said to have significantly influenced the formation of Ainu society, in particular the market economy and political power of mainland Japan. This paper examines the mechanisms and processes resulting from the relationship with the mainland Japanese economy and politics that prevented the further development of Ainu society and fixed their subsistence activities solely on foraging. Similar conditions can also be seen in various indigenous societies, not only around the high latitudes from Northeast Asia to North America, but also in the low latitudes, including Oceania and Africa. Additionally, in some areas kingdoms were established under the influence of Western colonialism. These case studies present examples of social development resulting from relationships with outside worlds and are instructive when considering the processes of state formation and the formation of civilization.

Este artículo se centra en la cultura Ainu y la comprensión convencional de ellos como una comunidad de recolectores en el noreste de Asia, examinando los factores y procesos que conducen a la formación de sus sociedades preestatales. Si bien los Ainu eran fundamentalmente una sociedad dedicada a la caza, recolección y pesca, también se llevó a cabo la agricultura extensiva de forma parcial. La sociedad Ainu nunca estableció una sociedad compleja a gran escala como una "jefatura" o un "reino". Sin embargo, estas características de la sociedad Ainu no fueron necesariamente determinadas únicamente por las condiciones internas. Por el contrario, se puede decir que los factores externos han influido significativamente en la formación de la sociedad Ainu, en particular la economía de mercado y el poder político central de Japón. Este artículo examina los mecanismos y procesos resultantes de la relación con la economía y la política central de Japón que impidieron un mayor desarrollo de la sociedad Ainu y fijaron sus actividades de subsistencia únicamente en la búsqueda de alimento. De igual manera se pueden observar condiciones similares en varias sociedades indígenas, no solo en las latitudes altas desde el noreste de Asia hasta

América del Norte, sino también en las latitudes bajas, incluidas Oceanía y África. Además, en algunas áreas se establecieron reinos bajo la influencia del colonialismo occidental.
Estos casos de estudio muestran ejemplos de desarrollo social que surgen como resultado de las relaciones con el mundo exterior y son un ejemplo didáctico al considerar los procesos de formación del estado y la formación de la civilización.

It can safely be said that the process leading to state formation is one of the most important issues in anthropological studies. This issue has been consistently and vigorously studied not only in prehistoric and ecological fields, but also in sociocultural anthropological fields (e.g., Bouchard, 2011; Jennings & Earle, 2016; Scott, 2009, 2017), despite serious criticism of social evolutionism. In particular, the factors and processes leading to civilization or state formation can never be ignored by sociocultural anthropologists who have conducted ethnographical research on small communities in the non-Western world, often called by the derogatory term "primitive societies". They have discovered various patterns in the formation processes of civilizations and states and collected substantial data in their respective ethnographic fields all over the world.

Figure 8.1.
Original settlement areas of the Ainu.



Considering this theoretical background, this paper focuses on the Ainu and the conventional understanding of them as foragers in Northeast Asia through the ethnohistorical study of their society in the pre-modern period. In particular, it will examine factors and processes in Ainu society that propelled its sociopolitical development. Furthermore, this paper elucidates the relationship between the development of Ainu society and the political system of the neighbouring Tokugawa Shogunate in mainland Japan.

This case study can be recognised not only as an individual example within the Japanese Archipelago in Northeast Asia, but also as a commentary on similar examples seen worldwide throughout history, from the Chinese dynasties and the Roman Empire to Western colonialism. In other words, this approach is an attempt to elucidate the formation process of civilization through analysis of social change preceding state formation.

1. A Point of Dispute in Ainu Studies

The Ainu are the indigenous people of Hokkaidō, the southern part of Sakhalin, and the Kuril Islands (Figure 8.1). They are a distinct ethnic group within contemporary Japanese society and regarded as a political and sociocultural minority. They sustained a relatively independent society and culture and maintained relationships with neighbouring groups and societies, including mainland Japan, China, and Russia, until their lands were colonized by the Japanese government in the Meiji period (AD 1868–1912).

On the one hand, Ainu culture and history are two of the most important subjects in Japanese anthropological and ethnohistorical studies and extensive scholarly inquiry has led to important findings (e.g., Yamada, 2003). These studies, however, do not sufficiently consider the relationship between cultural change in Ainu society and the influence of Japanese colonization in the pre-modern period.

Additionally, while Ainu society has been understood to have been a fundamentally hunting-gathering-fishing society, they partially engaged in extensive farming. Furthermore, it is commonly assumed that the Ainu did not establish a relatively large-scale complex society, such as a "chiefdom" or "kingdom"[1]. This image of Ainu society was established by Japanese anthropological researchers based on interviews with participants from older generations (e.g., Izumi, 1952; Watanabe, 1972)[2].

However, this view of the Ainu as a reconstructed model, which ignores their historical transitions, has received criticism from various fields, including anthropology and history (e.g., Fukasawa, 1998; Hudson, 2014). While the Ainu community in the modern era, which was the focus of the studies conducted by Japanese anthropologists, was unquestionably a small-scale foraging society, it appears to have had received significant external influences from the neighbouring Chinese dynasty, Russian empire, and nation of Japan (Deriha, 1994; Sasaki, 1999; Ōnishi, 2014, pp. 280–281). It is therefore necessary to examine and elucidate the factors and processes caused by external influences that led to the nature of Ainu society in the modern era.

2. Ainu Social Structure

Before examining the relationship between Ainu society and outside influences, I would like to briefly introduce an anthropological model of their society. The most clearly defined model of Ainu society has been suggested by cultural anthropologists (e.g., Yamada, 2002).

This article shall therefore refer to the "Ainu ecosystem" model designed by the Japanese ecological anthropologist Hitoshi Watanabe (Watanabe, 1972). This model integrates previous anthropological findings (e.g., Izumi, 1952) and is at present the most generally accepted model of Ainu society. It can safely be considered the most representative anthropological model[3].

(1) Social Organization

The social organization of Ainu society can be categorized into five units: 1) *Chise*, meaning "single household" in Ainu; 2) *kotan*, meaning "settlement"; 3) the local group; 4) the *shine-itokpa* group; and 5) the river group (Watanabe, 1972, pp. 7–18). While these units were originally scientific concepts and terms established through ethnographical research by Watanabe, they have been disseminated as common knowledge outside of academia and even adopted by contemporary Ainu people promoting cultural reconstruction activities based on their own traditions.

It can be understood that the relationship from the single household to the river group, excluding the *shine-itokpa* group[4], is a spatially and socially stratified continuum. However, while the household forms the most basic unit and a settlement is made up of those households, it is the local group that administers the social and political territories throughout the daily life of the Ainu. The river group consists of several local groups and is ordinarily the largest political and social unit; it therefore represents social integration at the highest level in Ainu society (Watanabe, 1972, pp. 16–17). It is generally assumed that there is no larger unit than the river group in daily life.

(2) Sociopolitical Roles of Units in Ainu Society

Each unit in Ainu society has various significant sociopolitical roles, particularly the management of

territories and resources as part of subsistence activities. The Ainu did not only take advantage of natural resources and sources of food, but, simply put, categorized each type of resource and controlled it. Such roles were conducted by each social unit.

Salmon fishing in rivers provided the most stable food source in Ainu society. As shown in Figure 8.2, activities were controlled by the local group (Watanabe, 1972, pp. 59–60). In addition, individual-level gathering and trap fishing, primarily of salmon, were conducted[5]. The river group was able to maintain its exclusive rights over other groups and controlled everything within its area (Watanabe, 1972, pp. 56–59). This implies that the Ainu never had one integrated society throughout Hokkaidō, but was rather fragmented into numerous areas controlled by river groups, under which local groups and individuals engaged in various activities in order to take advantage of resources.

Figure 8.3 also depicts the management of other resources related to Ainu subsistence activities. This well-known drawing of the Ainu ecosystem shows how each piece of land around a river is used. It is evident that each *kotan*, or local group belonging to a river group, possessed and used *iwor* as their territory or living space (Figure 8.4; Watanabe, 1972, p. 58). From these cases, it can be understood that the Ainu used and managed various resources over wide-ranging land and the way these subsistence activities were conducted differed by social unit.

These various subsistence activities were controlled by social units such as the *kotan* and river group. No activity surpassed the management of the river group. From the perspective of the role of social units concerning resource and territory management in subsistence activities, it can be inferred that there was no higher unit than the river group in Ainu society.

Figure 8.2.

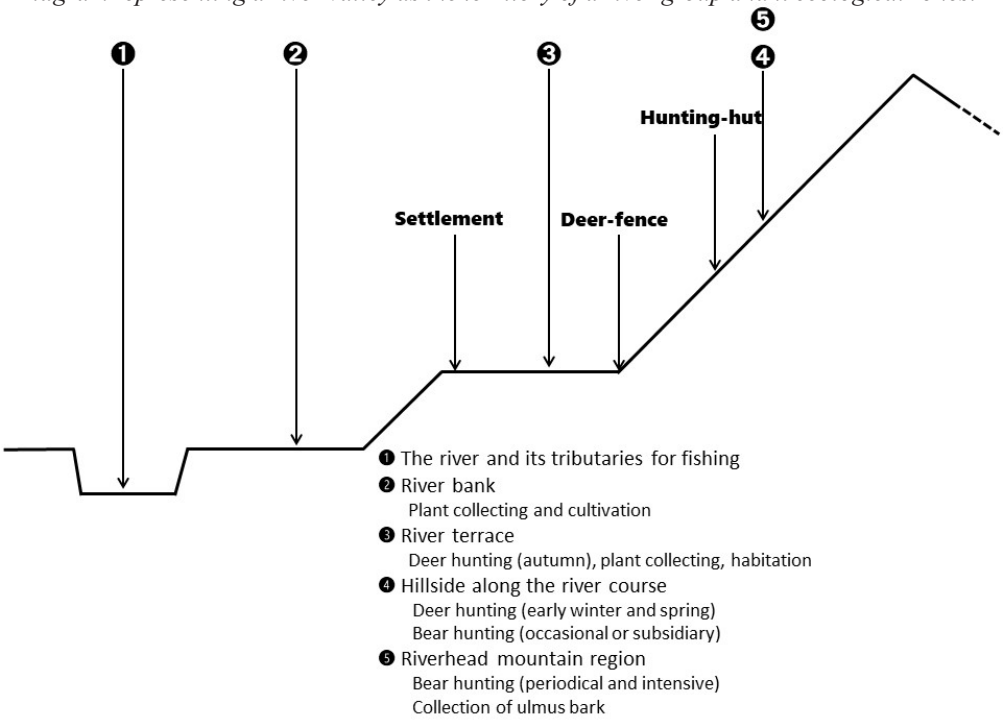
Territory and resource management in Ainu society.

Territory Maintained by the River Group as a Whole	Territories Maintained by Smaller Groups within the River Group	Controlling Body	Condition of the Place
River basin as prescribed by the Ainu	Site for peep-hut (*worun chise karn ushi*)	Individual simple family	Unstable
	Site for fish trap (*urai karu ushi*)		
	Site for fish trap (*urai karu ushi*)	Cooperative group	
	Site for weir (*tesh karu ushi*)		Stable
	Place for deer-fence (*kuteki ushi*)		
	Named concentration of spawning beds of dog salmon (*yaicharo iki, ichan or ichanuni*)	Local group	Very stable

Note. Original information from (Watanabe, 1972).

Figure 8.3.

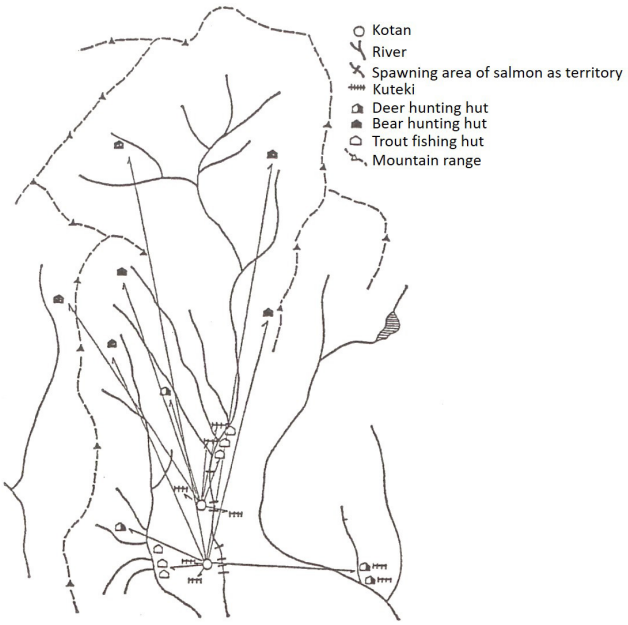
Diagram representing a river valley as the territory of a river group and it ecological zones.



Note. Original information from (Watanabe, 1972).

Figure 8.4.

Ainu subsistence activities and resource management of wide-ranging land.



Note. Original information from (Watanabe, 1972).

The nature of the Ainu ecosystem, as discussed above, can be verified from numerous historical documents of the Late Edo period (circa 19th century AD) during the pre-modern era (Ōnishi, 2008, 2014). Therefore, the society described within the Ainu ecosystem model can be regarded as a sociohistorical entity at least as early as the Late Edo period.

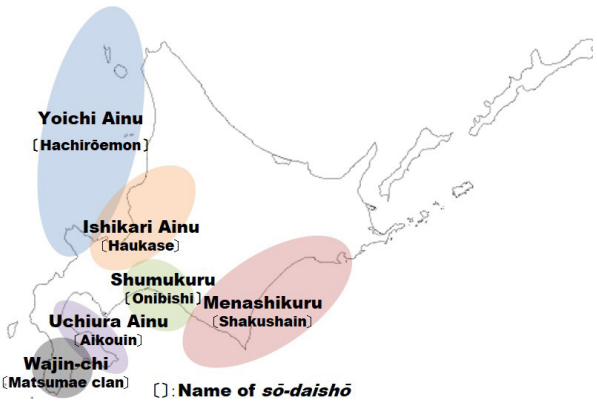
3. Ainu Chiefs Drawn from Historical Documents

In the anthropological model based on the Ainu ecosystem, the household is the smallest and the river group is the largest social unit in Ainu society. As a historical fact, the Ainu never achieved an integrated society, such as a nation-state, throughout Hokkaidō until the modern period. Thus, it can be assumed through ethnographic models that the chief of the river group had the highest political status in daily social life.

The four stages of social development proposed by Service, consisting of the band, tribe, chiefdom, and state (Figure 8.5; Service, 1962), are often employed to examine social development level by sociopolitical organization and subsistence economy. Although social evolutionism has received strict criticism from various research fields, including anthropology and history, these stages are often used as the most popular conceptual model to estimate a society's socio-organizational level. Based on an anthropological model such as the "Ainu ecosystem" model, Ainu society can perhaps be situated at the "tribal" stage according to the definition by Service.

Figure 8.5.

Sō-daishō and their sphere of influence in Shakushain's revolt.



Note. Original information from (Kaiho, 1974).

On the other hand, we can identify the existence of Ainu chiefs such as *sō-daishō* (惣大将) and *sō-otona* (惣乙名) in historical documents. From these documents, it can be concluded that these chiefs were able to politically influence large areas, including numerous river groups.

The *sō-otona* was the leader of several river groups and was fairly recognized until the modern period in the Hokkaidō hinterland, which had not yet faced Japanese colonization. However, they had lost any substantive power by the time Japanese anthropologists began research of their society (Harada, 1994, pp. 764–766).

Meanwhile, in the Early (circa 17th century AD) and Middle Edo period (circa 18th century AD), *sō-daishō* and *sō-otona* sometimes displayed extensive political leadership. In particular, this kind of leadership can be recognised in such extraordinary situations as Shakushain's Revolt (AD 1669–1672)[6] and the Menashi-Kunashir Rebellion (AD 1789)[7].

In the former revolt, powerful chiefs, such as the *sō-daishō*, in addition to Shakushain, wielded influence based on their sociopolitical leadership over huge areas and asserted their independence against the Matsumae clan (Figure 8.6). The Japanese historian Mineo Kaiho suggested from the existence of these chiefs that the Ainu originally had been able to grow into a complex ranked society led by multiple *sō-daishō*, which was influential over a relatively large area surpassing the river-group territory (Kaiho, 1974, pp. 72–78). On the other hand, in the Menashi-Kunashir rebellion, powerful chiefs called

sō-otona and *otona,* who were very similar to the *sō-daishō* of Shakushain's revolt, were depicted in official Japanese documents. Remarkably, they independently contacted Russian traders and established trading relationships outside the control of the Tokugawa Shogunate.

Through these cases, we arrive at an important question: Did powerful chiefs, such as the *sō-daishō* in Shakushain's revolt and the *sō-otona* in the Menashi-Kunashir rebellion, hold positions of leadership even during ordinary situations, without a declared state of emergency? In other words, could Ainu society before the Late Edo period be positioned at the "chiefdom" level? If so, why did the Ainu revert from "chiefdom" to "tribe" after the Late Edo period?

4. Socio-Organizational Level of the Ainu

Two differing approaches can be employed to investigate the socio-organizational level of the Ainu, as symbolized by the powerful *sō-daishō* and *sō-otona* in the two rebellions before the Middle Edo period. Alternating between these different perspectives enables us to focus on both internal and external factors.

(1) Views on Environmental Possibilism

A representative approach is to investigate a society's own social capacities from an internal perspective. Such cases usually focus on the factors of technology, environment, etc., and examine the formation process of social organization and structure. In other words, this approach explores causes through an examination of a particular society in and of itself. Incidentally, this type of approach in cultural geography has been called "environmental possibilism" (Hanks, 2011) and appropriated within cultural anthropology by Marshall Sahlins, who, alongside Service, was a pioneer of cultural ecology (Sahlins, 1964).

Hitoshi Watanabe, who formulated the Ainu ecosystem model, also attempted to explain the formation of ranked society, including within the Ainu in the North Pacific zone, from an internal perspective based on a socioecological approach similar to environmental possibilism and cultural ecology (Watanabe, 1983, 1990). Through his case study of foragers in this zone, he suggested that they had been able to build a relatively complex ranked society due to the socioeconomic surplus produced by the large biomass of environmental resources in their living area. Additionally, as a precondition, he indicated that these societies were based on equal or similar environmental conditions. In particular, a large amount of aquatic resources, such as salmon from rivers and/or the ocean, were acknowledged as an indispensable requirement for the building of ranked society (Watanabe, 1990, pp. 24, 25, 60, 68–69). As this kind of ecological condition exists only at high latitudes, he asserted that no foragers, except for those in the North Pacific zone, had been able to build a ranked society (Watanabe, 1990, p. 64).

Figure 8.6.

The four stages of social development as defined by Elman Service.

Ainu social stratification was characterized by an upper stratum that mainly specialized in hunting big game, such as bears or sea mammals, as a symbolic practice[8] and a lower stratum that usually engaged in fishing as a daily food-production activity. Although stratification did not necessarily involve fixed political and economic differences, members of the upper stratum held the exclusive right to trade with neighbors; luxuries, which were imported from outside by trading, were regarded as prestige goods called *ikor* (Watanabe, 1990, pp. 52–56). Members of the upper stratum also played an important role in ritual practices. As a result, the upper stratum of Ainu society obtained sociocultural prestige and the most predominant members took the position of chief, called *otona* or *ottena*[9].

On the other hand, foragers in low latitude zones had not been able to establish any kind of ranked complex society, such as a chiefdom or kingdom. In the South Pacific zone, in cases such as Hawaii, Fiji, and Samoa, some kingdoms were formed under the influence of Western colonization (Sahlins, 1958); they were all, however, based on agrarian societies. Considering the historical facts, it can be established that no ranked complex society was able to form in the low-latitude zones due to differences in environmental factors. In both coastal and inland areas in the low latitude zones, there are no food resources, such as salmon, that produce a stable socioeconomic surplus[10]. In addition, even if a large-calorie food resource is available, no surplus cannot be created in environmental conditions, such as tropical forests.

Through the above discussion based on Watanabe's examination, we are led to the conclusion that the type of stratification found in Ainu society was based on the large amount of aquatic resources. Needless to say, Ainu society possessed the necessary technology and social systems to intensively utilize and accumulate these resources as the basic requirements for building a ranked society. It can be concluded from this socioecological approach to internal factors that the Ainu had sufficient potential to establish a ranked society.

(2) Colonialism as an External Influence

Due to the tendency to focus on internal factors[11], ecological approaches and environmental possibilism have received sharp criticism in anthropological fields as an essentialist approach that neglects external influences (e.g., Headland & Reid, 1989; Hoffman, 1984; Peterson, 1978; Wilmsen & Denbow, 1989). Such criticisms have also been levelled by researchers of the North Pacific foragers, whose investigations include social organization and sociocultural history. It has become clear that external perspectives that shed light on influences received from neighbors are important and essential.

For example, it is well-known that the Northwest Coast Native Americans were significantly affected by European colonialism (e.g., Fisher, 1977; Gibson, 1988; Tachikawa, 1999). In particular, the fur trade with Europeans strongly influenced their society and caused drastic social change (e.g., Fisher, 1996; Gibson, 1992; Kishigami, 2001, 2004). Such trade provided many kinds of goods, including luxuries and daily necessities. Above all, forager societies on the Northwest Coast bought iron tools and industrial products, such as knives, axes, brackets, and guns, through trade with Europe, which allowed for higher productivity than the traditional tools produced in their own societies. These tools enabled them to drastically accumulate wealth and produce a surplus for social development (Kishigami, 2001, pp. 320, 339–340). In addition, these foragers could obtain necessities for daily life by concentrating solely on hunting in order to procure goods for trade.

Similar situations can be seen not only in North America, but also in the Ainu and forager societies on the North Pacific coast of Northeast Asia. These case studies

were examined from a socioecological approach by Hitoshi Watanabe, who expressly recognised the relationship between foragers on the North Pacific coast, including the Ainu, and neighboring societies, mainly involving trading (Watanabe, 1990, pp. 39–40, 52–56). Furthermore, he suggested that the relationship with the Tokugawa Shogunate played an important role in the stratification or complexity of Ainu society, similar to the case of the Northwest Coast Native Americans (Watanabe, 1990, pp. 45, 56).

In fact, the Ainu had already been sustaining their society with various commodities introduced through trade with mainland Japan even before the Edo period (e.g., Sasaki, 1999; Tezuka, 1998). In particular, archaeological studies have revealed that knives, adzes, axes, and other indispensable materials of daily life were replaced with non-locally produced iron tools from the proto-medieval Satsumon period (7th–13th century AD) (Ōnishi, 2014). Additionally, rice wine, tobacco, and lacquerware, which were necessary and important items for Ainu rituals, had also been introduced through trade with the outside.

Therefore, in order to procure various items for their daily needs, they had to produce and exchange commodities for trade with outside societies such as mainland Japan and the Chinese dynasties (Sasaki, 1999). In other words, Ainu society needed only to concentrate on hunting and fishing in order to procure trade commodities. As a result, they were able to acquire not only daily necessities, including iron tools, but also nonessential luxury items, such as ritual equipment including rice wine, tobacco, and lacquerware. The aim of Watanabe's research, however, was to finally explain that foragers on the North Pacific coast had sufficient socioecological factors to establish a ranked society. It can be suggested from these studies that the relatively complex ranked societies on the Northwest Coast were established and accelerated by trade activities with the European colonists. Moreover, this hypothesis can be applied to the relationship between the Tokugawa Shogunate and Ainu society.

Similarly, Watanabe proposed ecological capacity as a precondition for a ranked society (Watanabe, 1990, pp. 68-69). It can be assumed that the foragers on the North Pacific coast would not have been able to build such a society based solely on the influence of colonialism if they did not originally have the support of rich ecological factors. This assumption can be corroborated by case studies in other areas: In the tropical zone, no foragers built a ranked society, despite having received similar colonial influences[12]. In other words, as forager societies in the North Pacific, including the Ainu, had sufficient ecological capacity for subsistence in the environment they inhabited, they were capable of producing a surplus for sociocultural development.

5. Conclusion

The analyses presented above lead to the conclusion that the Ainu had sufficient potential to form a hierarchical society as a result of sociopolitical surplus based on rich ecological conditions, including aquatic resources and trade activities with outside societies. Nevertheless, it remains unclear why the Ainu after the Late Edo period reverted back to the tribal level.

In this paper, the author approaches this problem based on relationships with the outside world. Relationships with outside societies produced the potential to form a hierarchical society for the Ainu until the Middle Edo period. In addition, it is important to note that the potent ecological conditions for Ainu subsistence did not face any drastic change between the Middle and the Late Edo period[13].

This examination first focuses on the relationship with the Tokugawa Shogunate because this system had

the largest cultural impact on Ainu society, changing its structure throughout the pre-modern era. In fact, Ainu coastal fishing from the middle of the Edo period was carried out as forced labor under merchants from mainland Japan called *ukeoi-shōnin* (e.g., Deriha, 2009; 2014; Kikuchi, 1994). Additionally, the Tokugawa Shogunate forced the Ainu society to pursue commercial hunting since fur was regarded as a trade commodity under colonial policy.

From a different point of view, Ainu society was forcibly incorporated into the inter-regional division of labor of the Japanese archipelago. It should be recognized that the aim of their subsistence activities was the production of food and trade commodities to obtain iron tools, cereal crops, and other daily necessities from mainland Japan. This situation had already begun in the Satsumon period, regarded as the proto-Ainu stage, when the socioeconomic system between Hokkaidō and mainland Japan underwent drastic changes during the transition to the medieval era (Kikuchi, 1999; Ōnishi, 2014). Such trends in Ainu society accelerated over time from the medieval era to the Late Edo period.

Through the examinations presented above, it is evident that Ainu society was able to obtain not only necessities such as iron tools, but also prestige goods and luxury grocery items by procuring commodities for trade. Moreover, their social life could not be sustained without this trade with mainland Japan since they were not producing the necessary goods independently. In other words, the Ainu had no choice but to actively produce commodities for trade. Based on this understanding, we may conclude that the Ainu community was incorporated into and subordinated to a division of labor based on the trade network of mainland Japan, which precluded the development of a complex and independent hierarchical society after the Late Edo period. In other words, the imbalanced relationship with the Japanese economy and political situation prevented the development of Ainu society and fixed their subsistence activities on foraging alone.

However, it can be assumed that the Ainu through the Early Edo period, prior to their complete incorporation into the division of labor based on mainland Japan, had the potential to develop a more complex hierarchical society. If that were the case, it could mean that the *sō-daishō* and *sō-otona* possessed extensive political power in the Early Edo period and thus can be regarded as evidence for the aforesaid potential of the Ainu society at that time.

Similar cases to the Ainu after the Late Edo period have been seen in indigenous societies all over the world, including Northeast Asia (Sasaki, 2009). Some of these cases seen in various indigenous societies led to the formation of chiefdoms or kingdoms through the influence of colonialism and commercialism, not only around the high latitudes from Northeast Asia to Northern America, but also in the low latitudes, including Oceania and Africa.

Kingdoms were established in various areas all over the world, mainly in agricultural societies, under the influence of Western colonialism. These can be regarded as cases of social development based on relationships with the outside world and provide instructive ways to consider the processes leading to the formation of civilization, including state formation.

Similar investigations into the formative mechanisms of Ainu society must continue, taking advantage of comparative case studies of other regions. Such studies can be expected to provide significant new perspectives enabling further understanding of the factors leading to the formation of polities and the processes of social change, specifically from complex hierarchical societies to kingdoms under external influence, such as European colonialism. Such analyses will no doubt also contribute

comparative data in order to more deeply understand other case studies, such as state formation without external factors in the American continent before the Columbian era.

==========

[1]This topic will be discussed in greater detail later.

[2]By the time Japanese and non-Japanese anthropologists conducted their ethnographic research on Ainu communities, their social structure had changed drastically under significant influence from colonization by the Japanese government since the Meiji period (AD 1868–1912).

[3]Incidentally, this model has been subjected to a great deal of criticism both socially and academically. Refer to (Fukasawa, 1998; Ōnishi, 2008, 2014; Yamada, 2003) for a discussion of this issue.

[4]On the other hand, the shine-itokpa group is an intangible social unit whose socio-ideological organization was constituted by patrilineal kinship. Thus, this group differs from the other geographic groups and more likely can safely be regarded as one of the ideologies that bind human relationships (Watanabe, 1972, pp. 15–16).

[5]An important fact here is that no one is entitled to certain resources throughout the year. Individuals or households cooperated to take advantage of certain resources that were available for a certain time of the year. It follows that the rights to use each resource in various places changed constantly between a stable and unstable state.

[6]Shakushain's revolt was the largest Ainu rebellion against Japanese authority, namely the Matsumae clan, who was granted the area around Hokkaido as a fief under the Tokugawa Shogunate system in the Early Edo period.

[7]The Menashi-Kunashir rebellion was a battle in the Late Edo period (1789) between the Ainu and Japanese migrants who were employed as fishers and traders around the Nemuro Strait in northeastern Hokkaido by the Hidaya trading company of mainland Japan.

[8]As this kind of hunting doesn't contribute food resources for subsistence, it is theorized to be a symbolic practice.

[9]In Ainu society, community leaders or chiefs usually were elected from persons who had achieved honor and distinction. Prestige goods (ikor) imported through trade were indispensable to win renown.

[10]Large mammals such as elephants in the low latitude zone, mainly tropical forests, can be a significant source of calories. Their population size, however, is too small to compare with aquatic resources such as salmon and they are difficult to secure as a stable food resource. As already mentioned, big game in the high latitude zone, including the Ainu's living area, was also not a stable food source able to sustain society, with the exception of small population groups such as the Inuit in the circumpolar zone.

[11]The theoretical background of ecosystem approaches is based on the assumption of a closed system of energy flow in the environment (e.g., Odum, 1973). Therefore, such approaches inevitably focus on internal factors rather than external influences.

[12]Incidentally, farmers in the tropical zone, such as Africa and Oceania, also built more complex hierarchical societies that were regarded as chiefdoms and kingdoms under the influence of Western colonialism. From these case studies, it became clear that foragers in this area were unable to form a ranked society, even though they had received similar influences from Western colonialism as their neighboring farmers.

[13]However, there were some local environmental changes in the Ainu's living area through the Edo period, including catastrophic volcanic eruptions (Endo & Doi 2013; Tokui, 1989) and drains on resources by the commercial activities of Japanese migrants (Takakura, 1960, 1966).

References

Bouchard, M. (2011). The state of the study of the state in anthropology. *Reviews in Anthropology, 40*(3), 183–209.

Deriha, K. (1994). Ethnological collections research on the Ainu and neighboring people of northeastern Asia. *Arctic Studies Center Newsletter, 3*, 14–15.

Deriha, K. 2009. How we can approach the issue of Ainu traps? Ainu hunting of small animals in the nineteenth-century fur trade systems. In S. Sasaki (Ed.), *Human–nature relations and the historical backgrounds of hunter-gatherer cultures in northeast Asian forests* (pp. 101–115). National Museum of Ethnology.

Deriha, K. (2014). Trade and the paradigm shift in research on Ainu hunting practices. In M. J. Hudson, A.-E. Lewallen, & M. K. Watson (Eds.), *Beyond Ainu Studies* (pp. 136–149). University of Hawai'i Press.

Endo, M., & Doi, N. (2013). 1822-nen no Usuzan funka niyoru Ainu no hisai jōkyō: Shibōshasū no kakutei to seizon no yōin nikansuru kōsatsu [Devastation affecting the Ainu due to the pyroclastic flow and surge from the 1822 eruption of the Usu Volcano in Hokkaidō, northern Japan: Determination of the number of dead and main reason for survival]. *Chirigaku Hyōron, 86*(6), 505–521.

Fisher, R. (1977). *Contact and conflict: Indian-European relations in British Columbia, 1774-1890* University of British Columbia Press.

Fisher, R. (1996). The Northwest from the beginning of trade with Europeans to the 1880s. In B. G. Trigger, & W. E. Washburn (Eds.), *The Cambridge history of the native peoples of the Americas: Vol. 1. North America, Part 2* (pp. 117–182). Cambridge University Press.

Fukasawa, Y. (1998). *Ainu archaeology as ethnohistory*: *Iron technology among the Saru Ainu of Hokkaido, Japan in the 17th century*.British Archaeological Reports.

Gibson, J. A. (1988). The maritime trade of the North Pacific coast. In W. E. Washburn (Ed.), *History of Indian-White relations (Handbook of North American Indians, Vol. 4),* (pp. 375–390). Smithsonian Institution Press.

Gibson, J. A. (1992). *Otter skins, Boston ships, and China goods: The maritime fur trade of the Northwest coast, 1785–1841*. McGill-Queen's University Press.

Hanks, R. R. (2011). Possibilism. In R. R. Hanks, *Encyclopedia of Geography Terms, Themes, and Concepts* (pp. 262–263). ABC-CLIO.

Harada, K. (1994). Meiji zenki no Kamikawa Ainu [Kamikawa Ainu in the early Meiji period]. In Asahikawa shishi henshū kaigi (Ed.), *Shin Asashikawa-shi shi* (pp. 735–777). Asahikawa City.

Headland, T. N., & Reid, L. A. 1989. Hunter-gatherers and their neighbors from prehistory to the present. *Current Anthropology, 30*(1), 43–66.

Hoffman, C. L. (1984). Punan foragers in the trading networks of Southeast Asia. In C. Schrire (Ed.), *Past and present in hunter-gatherer studies* (pp. 123–149). Academic Press.

Hudson, M. J. (2014). Ainu and hunter-gatherer studies. In M. J. Hudson, A.-E. Lewallen, & M. K. Watson (Eds.), *Beyond Ainu Studies* (pp. 117–135). University of Hawai'i Press.

Izumi, S. (1952). Saru-Ainu no chien shūdan ni okeru IWOR [Iwor and the territorial group of the Saru Ainu]. *Minzokugaku Kenkyū, 16*(3-4), 213–229.

Kaiho, M. (1974). *Nihon hoppō-shi no riron* [*The theory of northern Japanese history*]. Yūzankaku shuppan.

Kikuchi, I. (1994). *Ainu minzoku to Nihonjin* [*The Ainu and the Japanese*]. Asahi sensho.

Kikuchi I. (1999). Early Ainu contacts with the Japanese. In W. W. Fitzhugh, & C. O. Dubreuil (Eds.), *Ainu: Spirit of a northern people* (pp.74–78). Arctic Studies Center.

Kishigami, N. 2001. Hokubei hoppō chiiki niokeru senjūmin niyoru shoshigen no kōeki nitsuite: Kegawa kōeki to sono shoeikyo wo chūshin ni [Indigenous Trade of Resources in the Northern Regions of North America: With a Special Focus on the Fur Trade and its Impacts on Aboriginal Societies]. *Kokuritu Minzokugaku Hakubutsukan Kenkyū Hōkoku, 25*(3), 293–354.

Kishigami, N. (2004). Trends in Native North American studies in Japan since the 1990s. *Japanese Review of Cultural Anthropology, 5*, 91–121.

Jennings, J., & Timothy K. E. (2016). Urbanization, state formation, and cooperation: A reappraisal. *Current Anthropology*, 57(4), 474–493.

Odum, E. P. (1968). Energy flow in ecosystems: A historical review. *American Zoologist, 8*(1), 11–18.

Ōnishi, H. (2008). Ainu shakai niokeru kawasuji shūdan no jiritsusei [The independence of the river group in Ainu society]. In Y. Katō, H. Ōnishi, & S. Sasaki (Eds.), *Higashi Asia naikai no kōryu-shi* (pp. 237–261). Jinbun shoin.

Ōnishi, H. (2014). The formation of the Ainu cultural landscape: Landscape shift in a hunter-gatherer society in the northern part of the Japanese Archipelago. *Journal of World Prehistory, 27*(3–4), 277–293.

Peterson, J. T. (1978). Hunter-gatherer/farmer exchange. *American Anthropologist, 80,* 335–351.

Sahlins, M. D. (1958). *The social stratification of Polynesia*. University of Washington Press.

Sahlins, M. D. (1964). Culture and environment: *The study of cultural ecology.* Voice of America.

Sasaki, S. (1999). Trading brokers and partners with China, Russia, and Japan. In W. W. Fitzhugh, & C. O. Dubreuil (Eds.), *Ainu: Spirit of a northern people* (86–91). Arctic Studies Center.

Sasaki, S. (Ed.). (2009). *Human–nature relations and the historical backgrounds of hunter-gatherer cultures in Northeast Asian forests.* National Museum of Ethnology.

Service, E. R. (1962). *Primitive social organization: An evolutionary perspective*. Random House.

Scott, J. C. (2009). *The art of not being governed: An anarchist history of upland Southeast Asia*. Yale University Press.

Scott, J. C. (2017). *Against the grain: A deep history of the earliest states.* Yale University Press.

Tachikawa, A. (1999). Kwakwaka'wakw kizokusō no suitai [The decline of Kwakwaka'wakw nobility: The colonization of Canada and its influence upon Kwakwaka'wakw cosmology and the potlatch]. *Minzokugaku Kenkyū, 64*(1), 1–22.

Takakura, S. (1960). The Ainu of Northern Japan: A study in conquest and acculturation. *Transactions of the American Philosophical Society, New series, 50*(4), 1–88.

Takakura, S. (1966). *Ainu kenkyū* [Research on the Ainu]. Hokkaidō Daigaku seikatsu kyōdō kumiai.

Tezuka, Kaoru. 1998. Long-distance trade networks and shipping in the Ezo region. *Arctic Anthropology, 35(*1), 350–360.

Tokui, Y. (1989). Hokkaidō niokeru 17seiki ikōno kazan funka to sono jinbunkankyō eno eikyō [Volcanic eruptions and their effects on human activity in Hokkaidō, Japan]. *Ochanomizu chiri, 30,* 27-33.

Watanabe, H. (1972). *The Ainu ecosystem: Environment and group structure.* University of Washington Press.

Watanabe, H. (1983). Occupational differentiation and social stratification: The case of Northern Pacific maritime food-gatherers. *Current Anthropology, 24*(2), 217–219.

Watanabe, H. (1990). *Jōmon-shiki kaisoka shakai [Jōmon stratified socity]*. Rokkō shuppan.

Wilmsen, E.N., & Denbow, J. R.(1990). Paradigmatic history of San-speaking peoples and current attempts at revision. *Current Anthropology, 31(5),* 489–524.

Yamada, T. (2003). Anthropological Studies of the Ainu in Japan: Past and Present. *Japanese Review of Cultural Anthropology, 4,* 75–106.

This work was supported by Grant-in-Aid for Scientific Research on Innovative Areas JP19H05735 “Integrative Human Historical Science of "Out of Eurasia"”.