

**УЧЕНЫЕ ЗАПИСКИ
САХАЛИНСКОГО ГОСУДАРСТВЕННОГО УНИВЕРСИТЕТА**

ВЫПУСК XI/XII/2014/2015

Федеральное государственное бюджетное образовательное учреждение
высшего профессионального образования
«САХАЛИНСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ»

ГЛАВНЫЙ РЕДАКТОР ВЫПУСКА
ВАСИЛЕВСКИЙ
АЛЕКСАНДР АЛЕКСАНДРОВИЧ,
д-р ист. наук

РЕДАКЦИОННЫЙ СОВЕТ:

МИНЕРВИН Игорь Георгиевич, канд. физ.-мат. наук, доцент	МИСИКОВ Борис Рамазанович, канд. физ.-мат. наук, д-р пед. наук, доцент
	УШАКОВА Галина Дмитриевна, канд. пед. наук, доцент

УЧРЕДИТЕЛЬ ЖУРНАЛА

Федеральное государственное бюджетное образовательное учреждение
высшего профессионального образования
«САХАЛИНСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ»
693008, Россия, г. Южно-Сахалинск, ул. Ленина, 290

Журнал зарегистрирован Дальневосточным окружным межрегиональным
территориальным управлением Министерства Российской Федерации
по делам печати, телерадиовещания и средств массовых коммуникаций.

*Свидетельство о регистрации средства массовой информации
ПИ № 15-0358 от 5 июня 2002 г.*

С электронной версией журнала можно ознакомиться
на сайте Сахалинского государственного университета
www.sakhgu.ru в разделе «Издательство вуза» – «Изданное».

Подписано в печать 01.10.2015. Дата выхода в свет 30.10.2015 г.
Формат 60x84¹/₈. Тираж 500 экз.

Адрес редакции и издателя: 693008, Южно-Сахалинск, ул. Ленина, 290, каб. 32. Тел. (4242) 45-23-16. Тел./факс (4242) 45-23-17. E-mail: izdatelstvo@sakhgu.ru	Адрес типографии: 693008, Южно-Сахалинск, ул. Ленина, 290, каб. 3. Тел. (4242) 45-23-16. Тел./факс (4242) 45-23-17. E-mail: polygraph@sakhgu.ru
---	---

**PROCEEDINGS
OF SAKHALIN STATE UNIVERSITY**

NUMBER XI/XII/2014/2015

Federal State Budgetary Educational Institution of Higher Professional Learning
“Sakhalin State University”

CHIEF EDITOR

Alexander Al. Vasilevskij

EDITORIAL COUNCIL:

Igor G. MINERVIN,
Candidate of Physical and Mathematical Science,
Associate Professor

Boris R. MISIKOV,
Candidate of Physical and Mathematical Sciences,
Doctor of Pedagogical Sciences, Associate Professor
Galina D. USHAKOVA,
Candidate of Pedagogical Sciences, Associate Professor

FOUNDER

Federal State Budgetary Educational Institution of Higher Professional Learning
“Sakhalin State University”
693008, Lenin St., 290, Yuzhno-Sakhalinsk, Russia

Journal is registered by Far Eastern District Interregional Territorial Department
of Russian Federation Ministry for Affairs of the Press, Television and Radio Broadcasting
and Mass Communication Media
Mass media registration certificate PI № 15-0358 of June 5, 2002

On-line version of journal you can see on **www.sakhgu.ru**

Passed for printing 01.10.2015. Date of publication 30.10.2015.
Format 60x84¹/₈. Circulation 500.

Address of editors office and publishing:	Address of Printed Printing office:
693008, of. 32, Lenina St., 290, Yuzhno-Sakhalinsk, Russia	693008, of. 3, Lenina St., 290, Yuzhno-Sakhalinsk, Russia
Tel. (4242) 45-23-16. Tel/fax (4242) 45-23-17	Tel. (4242) 45-23-16. Tel/fax (4242) 45-23-17
E-mail: izdatelstvo@sakhgu.ru	E-mail: polygraph@sakhgu.ru

Open price

**ARCHAEOLOGICAL MATERIALS FROM THE KURIL ISLANDS
AND SAKHALIN HOUSED IN HOKKAIDO UNIVERSITY NATURAL HISTORY
MUSEUM (BOTANIC GARDEN)**



Katsunori Takase – Graduate School of Letters, Hokkaido University.

Introduction

Hokkaido University Natural History Museum (HUNHM), established in 1870s, is one of the oldest museums not only in Hokkaido, but also in Japan. Scientific specimens of this museum have played an important role in various academic fields, especially in biology and ethnology. Collections of bird, mammals, plants, and material culture of the Ainu and other northern peoples are well known, because they have been studied from an early stage of the museum history and their list has been already published (HUNHM 2002, 2003, 2004, 2008).

In contrast, archaeological collection that contains about 20,000 artifacts and ecofacts is not relatively unknown because of some reasons: 1) only brief reports of excavations were published, 2) almost all of the materials were collected before the end of WWII by many people including non-archaeologists, 3) official catalogues of specimen have not yet been published. These factors make it difficult to understand the whole context of the collection.

In recent years, however, some efforts for presenting the details of it have been made by researchers of Hokkaido University (Kato 2001, Kato ed. 2012, Matsuda 2008). The author is also preparing catalogues to reveal all archaeological materials from the Circum-Okhotsk Sea region of this museum. On the basis of examinations of the collection so far, this study aims to overview contents and relevance of archaeological materials from the Kuril Islands and Sakhalin housed in HUNHM.

1. History of Botanic Garden and HUNHM

History of Botanic Garden Hokkaido University, where HUNHM is situated, goes back to 1878 when Hokkaido Development Commissioner transferred control of the glasshouse to Sapporo Agricultural College. HUNHM is originated from the Sapporo Tentative Museum that was established by Hokkaido Development Commissioner in 1877 in order to educate immigrants about nature of Hokkaido and culture of

the Ainu. The first building of the museum was constructed in *Kairakuen* garden, south of Hokkaido University campus. However, soon after that, new building became necessary due to problems of increasing materials. In 1882, new building named as “Sapporo Museum” was built in Sapporo Field of Sheep inside Botanic Garden Hokkaido University. Two years later, Sapporo Museum was officially transferred control from Ministry of Agriculture and Commerce to Sapporo Agricultural College.

In 1907, Sapporo Agricultural College was reorganized into Agricultural College of Tohoku Imperial University. In 1918, it restructured again and became Faculty of Agriculture of Hokkaido Imperial University. Hokkaido Imperial University renamed Hokkaido University in 1947. These reorganizations have imposed changes of the organizational structure and name on the museum, but it has been known as the Museum Faculty of Agriculture Hokkaido University during 1947 to 2001. In April 2001, this museum was acquired by Botanic Garden of the university. At the same time, Botanic Garden became a section of the Field Science Center for Northern Biosphere Hokkaido University. Therefore, “HUNHM” is only popular name today, because this museum is just a part of Botanic Garden, not necessarily an independent organization in Hokkaido University. However, different university museum (the Hokkaido University Museum) officially came into existence from 1999, and we have to distinguish it from HUNHM as a different museum. To avoid needless confusion, we use the term “HUNHM” in this article.

2. Archaeological Materials from the Kuril Islands (1) Composition and provenance of collection

Collecting places of material in this collection is shown in Fig.1 and Tab.1. The total number of specimen from the Kuril Islands is 1987 (Tab. 2). In the southern Kurils, 1523 specimens (76.6 %) were collected, while the number of materials from the Middle and Northern Kurils is only 232 (11.7 %). The name of island or

precise location for the rest of the artifacts is unknown, although it is no doubt that they were collected in the Kuril Islands. Although the most popular artifact is stone tool, kind of artifact varies from region to region.

Considerable portion of artifacts from the Southern Kurils is likely to be collected by Takemitsu Natori, a staff of HUNHM, on Kunashiri and Etorofu Islands in 1933 (Fig. 2). Actually, some materials reported in his articles can be identified in the collection (Natori 1939, 1940). In contrast, it is difficult to restore the origin of artifacts from the Middle Kurils. Almost all of them are estimated to be collected by natural scientists and common Japanese (e.g., fishermen, builders) who visited Simushir Island except one specimen (a belt tie) that *Saisenkai*, a community for archaeologists/ethnologists in Hokkaido, donated to the museum (Fig. 5:7).

There is not enough information of collectors of artifacts from the Northern Kurils, too. However, animal remains of dog and sea mammal collected by Osamu Baba on Shumshu Island can be seen in this collection. Baba reported that he found more than ten dog mandibles in No.1 pit dwelling of the Bettobu site on Shumshu Island in July 1937 (Oka and Baba 1938). Collecting date recorded on attached labels indicate that these bone specimens were definitely found in this excavation. We can also see some elaborate bone implements collected by Tsunekichi Kono (Fig. 6:8, 9). They were found in the Bettobu sites, Shumshu Island, when he visited the Northern Kurils as a member of Hokkaido government investigation team led by Tadayoshi Takaoka in 1900. The official report of the survey and Baba's report contain information about these materials (Takaoka 1901, Baba 1934).

Other collectors who concerned in this collection are Jingoro Tochinai who visited the Northern Kurils with Tadayoshi Takaoka to the Northern Kurils in 1900, Miles L. Pelle, a lecturer of Zoological Institute Hokkaido University, traveled in the Southern Kurils to collect specimen of spiders (Pelle 1932), Kozo Mukasa traveled with Pelle as a staff of HUNHM (Mukasa 1934), Carl Etter, a teacher of German in Hokkaido University. They seem to donate archaeological remains to HUNHM after they come back to Sapporo from fieldwork in the Kuril Islands.

Besides, amateur researchers and common Japanese people seemed to donate artifacts to the museum. For example, there are some artifacts presented by school teachers in the Southern Kurils and eastern Hokkaido such as Toshihisa Ueki and Shoichi Ohmi. Jiro Yachida, an amateur archaeologist in Nemuro, also donated artifacts from the Southern Kurils. Some old newspaper articles indicate that he donated a lot of artifacts from the Benten-jima site in Nemuro to HUNHM; we, actually, can see more than 300 specimens excavated in Nemuro donated by him in the present collection. Although it is still unknown if he excavated in the Southern Kurils, it is likely that he could obtain artifacts from Southern Kurils from his acquaintances. According to a letter housed in HUNHM, Yoshio Furukawa, a builder in Horobetsu, Shikotan Island, donated pottery from the island in 1937. Other Japanese names such as Shohachi Iwama, Masahiko Ishida, Matsui and Yasuda (both are surnames) can be seen in the specimen ledger of the

museum. However, we have not yet revealed their occupation and reason why they had artifacts from the Kuril Islands and donated them to the museum.

(2) Archaeological relevance of the collection

Over half of materials in the collection (more than 1200 artifacts) is not identified their period, because they are non-diagnostic materials such as common stone tools and bone/antler tools. However, pottery fragments suggest that artifacts from the Kuril Islands can be roughly divided into seven periods: the Jomon, the Epi-Jomon, the Okhotsk, the Satsumon, the Tobinitai, the Ainu/Kuril Ainu, and the Modern Age. Among them, the most common archaeological culture is the Okhotsk Culture period; there are more than 350 artifacts of this period. Over 200 artifacts of the Epi-Jomon culture can be seen, this is the second largest number of artifact in this collection.

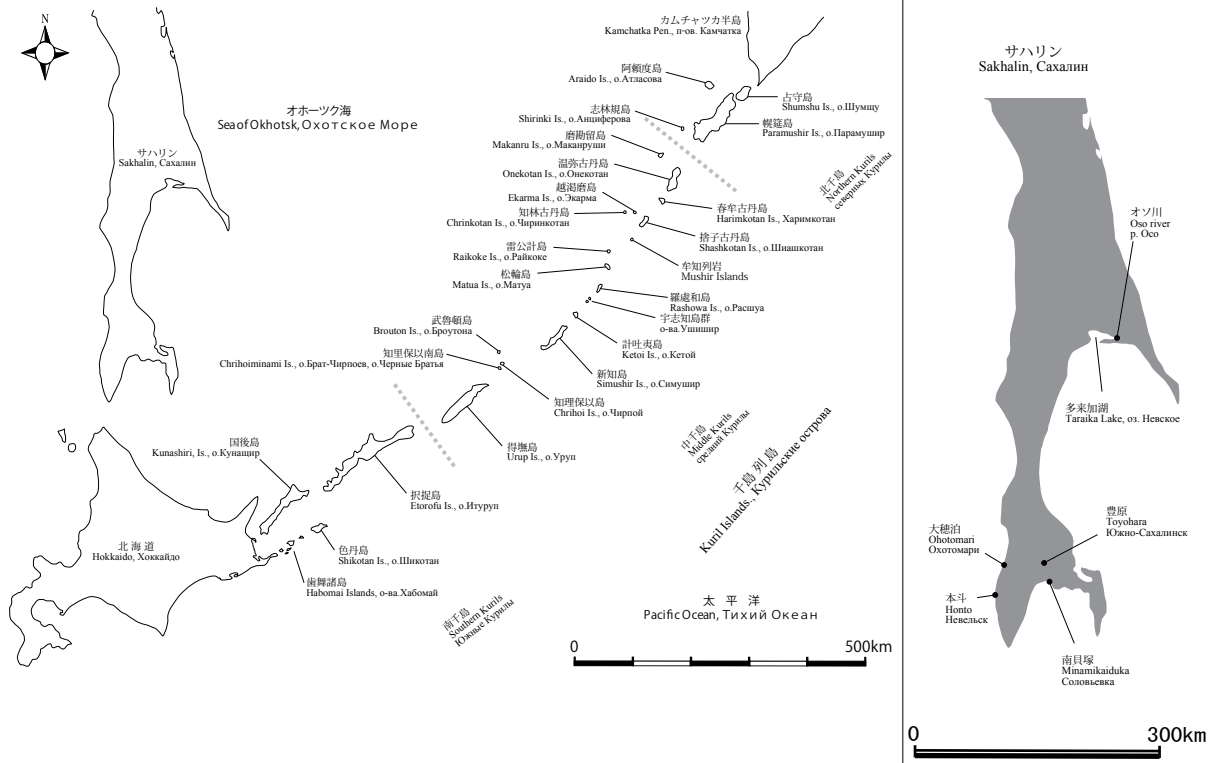
The oldest pottery should be dated to the Middle or Late Jomon in the Southern Kurils. Especially on Kunashiri and Etorofu Islands, artifacts of every archaeological culture period can be seen. This indicates that the Southern Kurils has a close cultural relationship with the mainland of Hokkaido as past studies have revealed. There are some notable clay vessels of the Okhotsk culture with bear-shaped spout and decoration of bear's footprints (Figs. 3:2, 4:2). These specimens have been repeatedly regarded as representative vessels from the Southern Kuril Islands by various archaeologists (eg., Ohmi 1928, Sugiyama 1932, Saisenkai ed. 1933b, Natori 1934, 1936, Yamanouchi 1964, Ohba 1982, Matsushita 1968, Ushiro 1982, Nomura 1992). Naiji pottery in near-perfect condition from Rubetsu, Etorofu Island, is also remarkable instance, because the number of this type of pottery in the Southern Kurils is extremely small (Fig. 4:1). Some characteristic stone tools known as "Etorofu type adzes" have been already examined on basis of lithic use-wear analysis (Takase 2010).

Although the number of materials from the Middle and Northern Kurils is not large, there are many valuable artifacts, particularly in bone/antler tools (Figs.5 and 6). Among them, bone implements collected on Paramushir Island that were donated by the Kuril Ainu S. Yakov through Toshihisa Ueki are also involved. The collection contains a beautiful bone comb that has been reported by Takaoka (1901), Natori (1934) and Baba (1934). By examining pictures in these literatures, we regrettably believe that a part of this artifact was broken between 1901 and 1934.

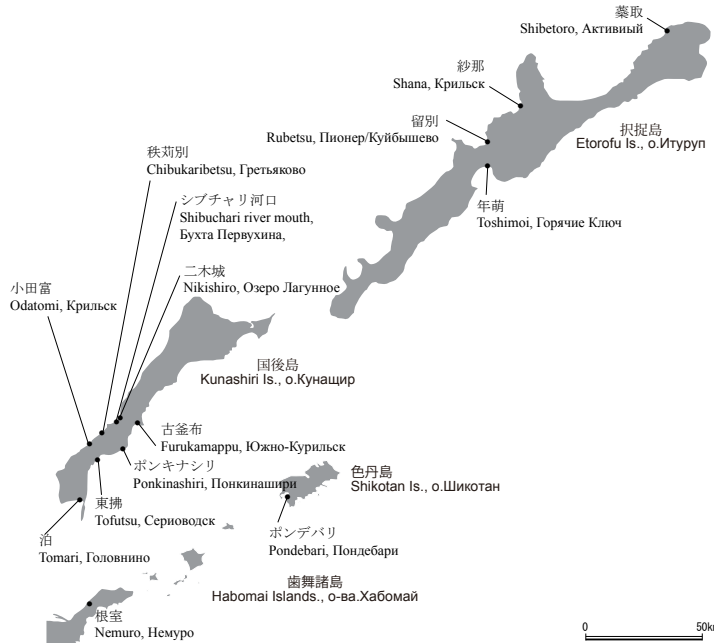
3. Archaeological Materials from Sakhalin

(1) Composition and provenance of the collection

The total number of artifacts from Sakhalin is 98 (Tab. 2). Among them, 72 specimens (73 %) are collected in Ohotomari near Trantomari, the west coast of Sakhalin. Almost all of materials from Ohodomari are stone points made of andesite/basalt and characteristic stone axes/adzes with rectangular cross-section. Other collecting places are Traika or Taraika Lake, Oso river connected to Taraika Lake, Mimamikaizuka (Solov'yovka), Toyohara (Yuzhno-Sakhalinsk), Honto (Nevel'sk) and the east coast of the island (Fig. 1, Tab. 1).



南千島
Southern Kurils
Южные Курилы



中千島
Middle Kurils
средний Курилы



北千島
Northern Kurils
северные Курилы

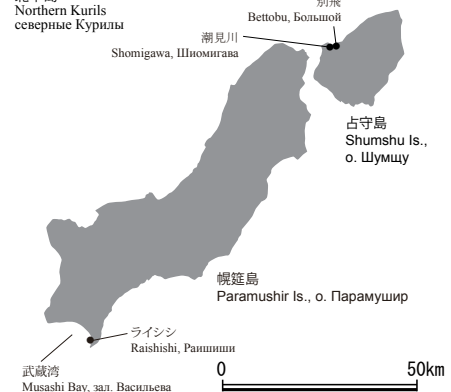


Fig. 1. Map showing collecting places of artifacts

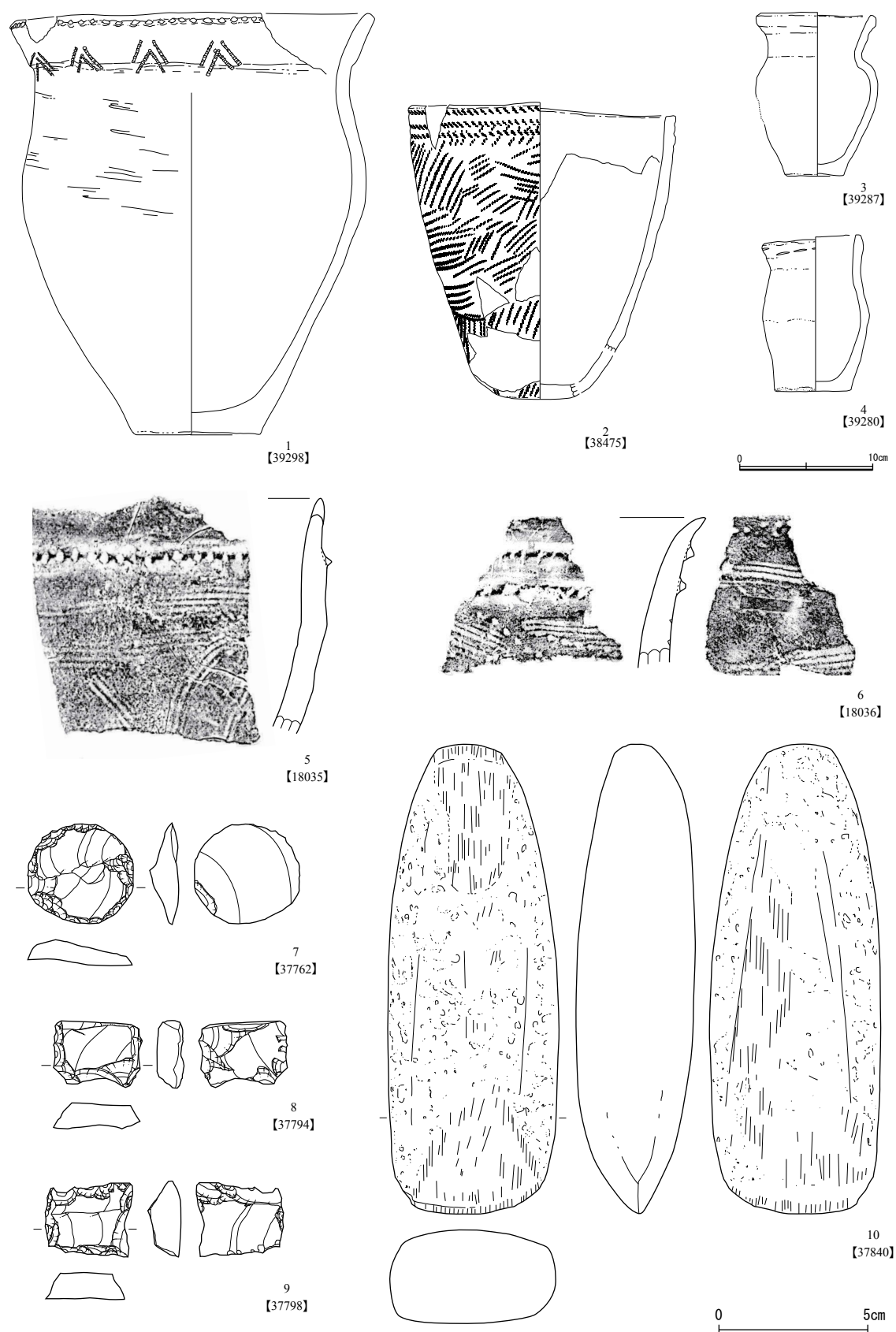


Fig. 2. Artifacts from the Southern Kurils (1) [1, 3, 4: Numaguchi site, Nikishiro, Kunashiri Is., 2: Pit dwelling, Nikishiro, Kunashiri Is., 5-10: Nikishiro, Kunashiri Is.]

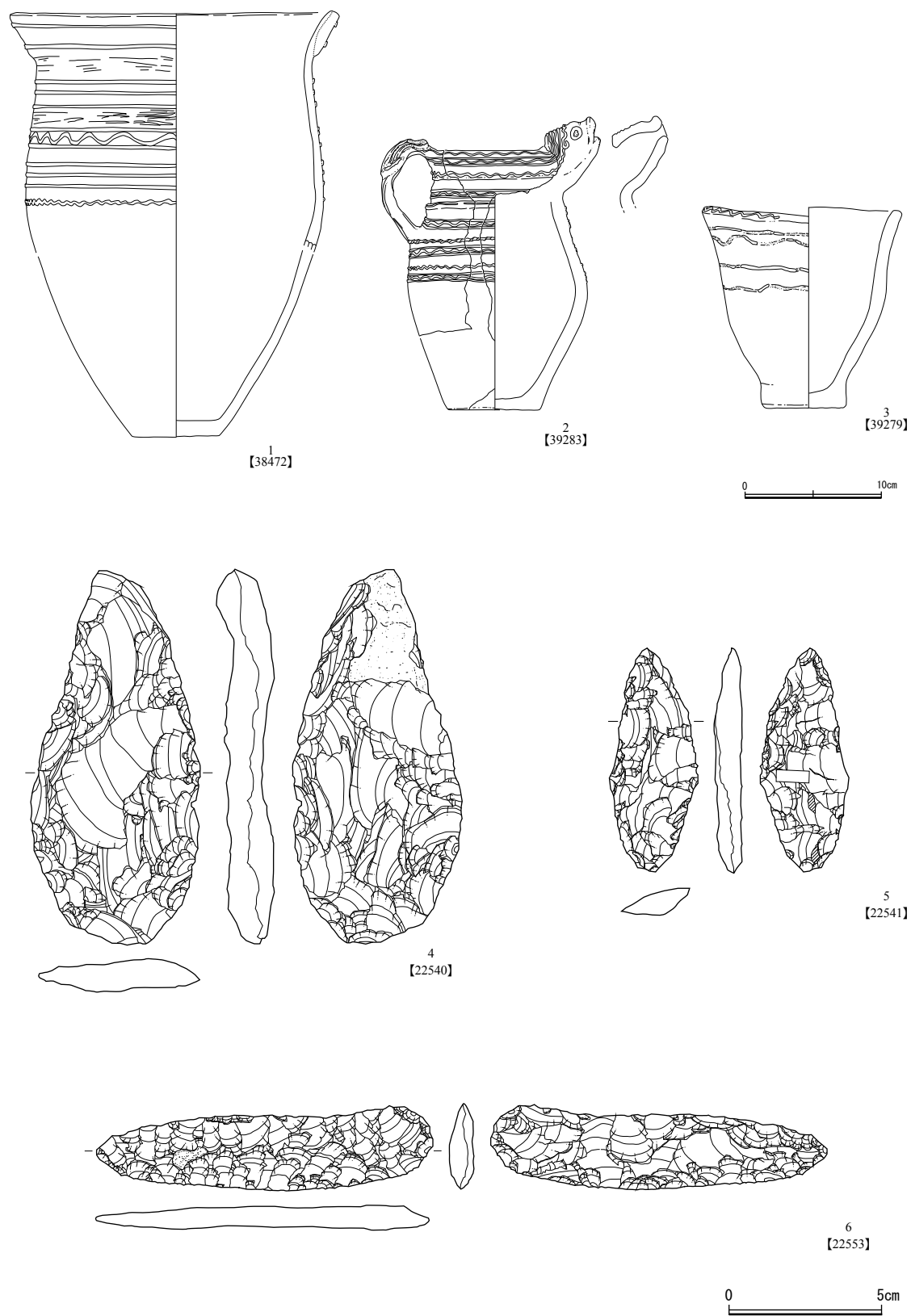


Fig. 3. *Artifacts from the Southern Kurils (2) [1-3: Ponkinashiri, Kunashiri Is., 4-6: Tofutsu, Kunashiri Is.]*

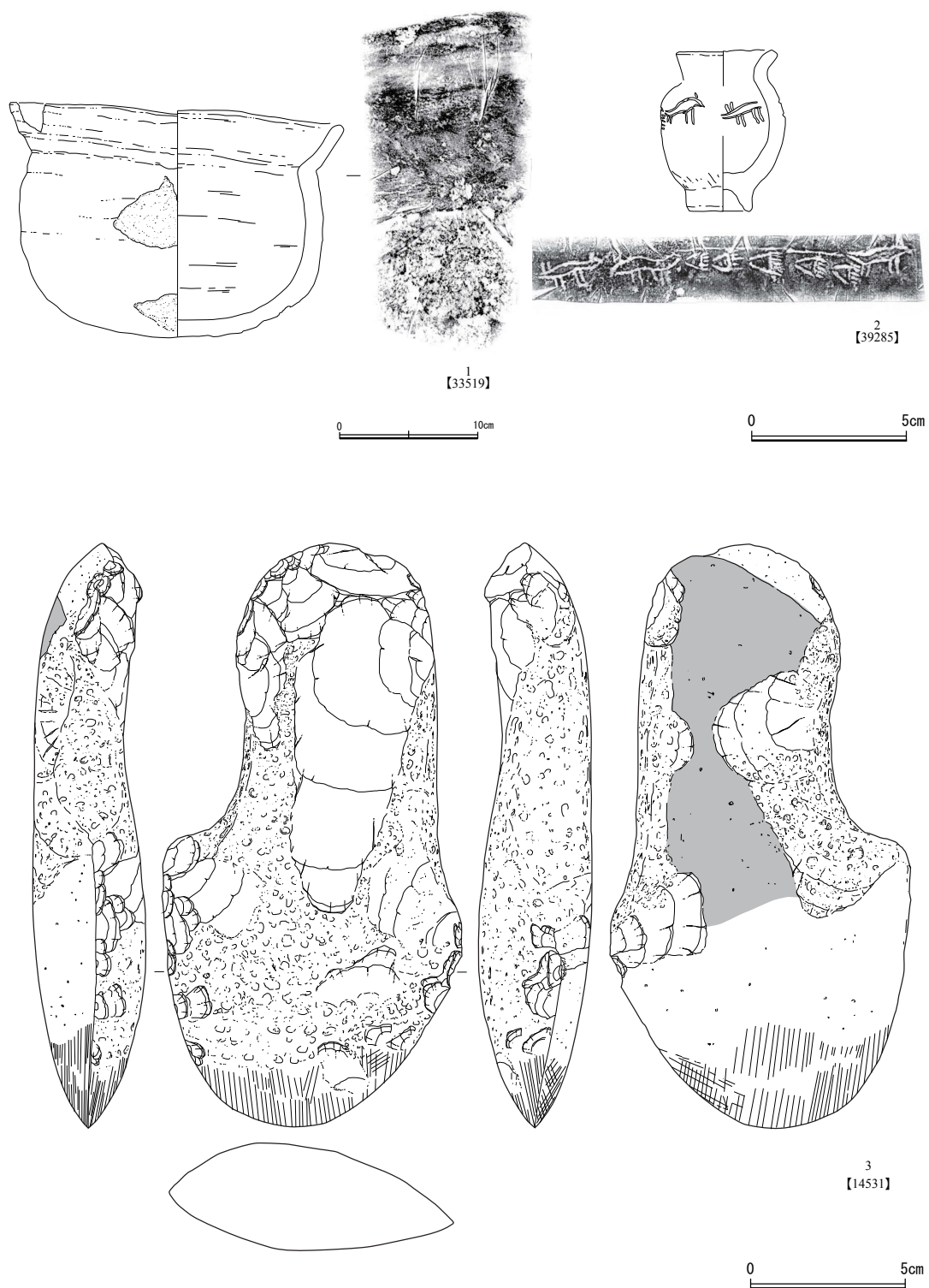


Fig. 4. Artifacts from the Southern Kurils (3) [1: Rubetsu, Etorofu Is., 2: Toshimoi, Etorofu Is., 3: Shana, Etorofu Is.]

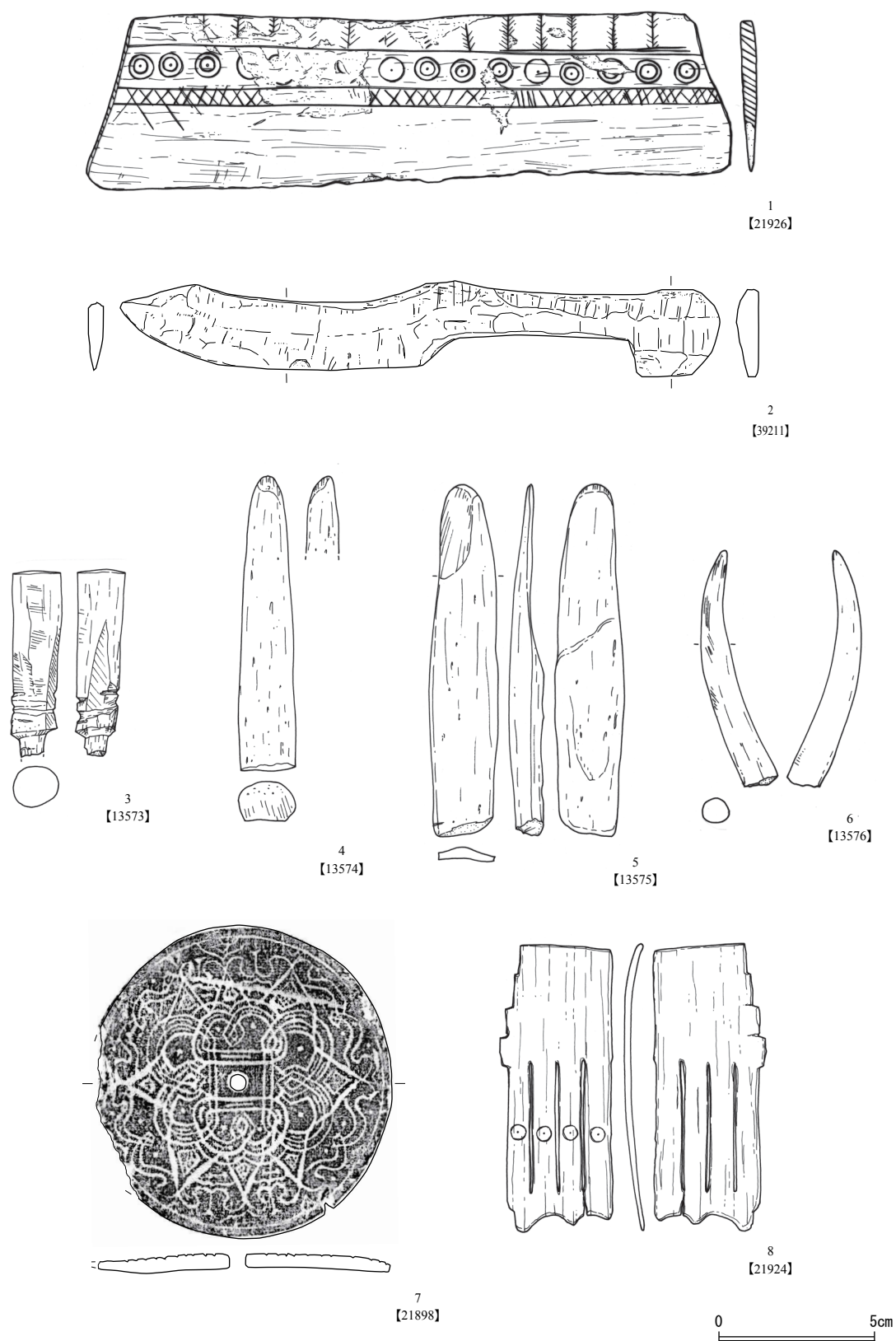


Fig. 5. Artifacts from the Middle Kurils [1-8: Brouton Bay, Simushir Is.]

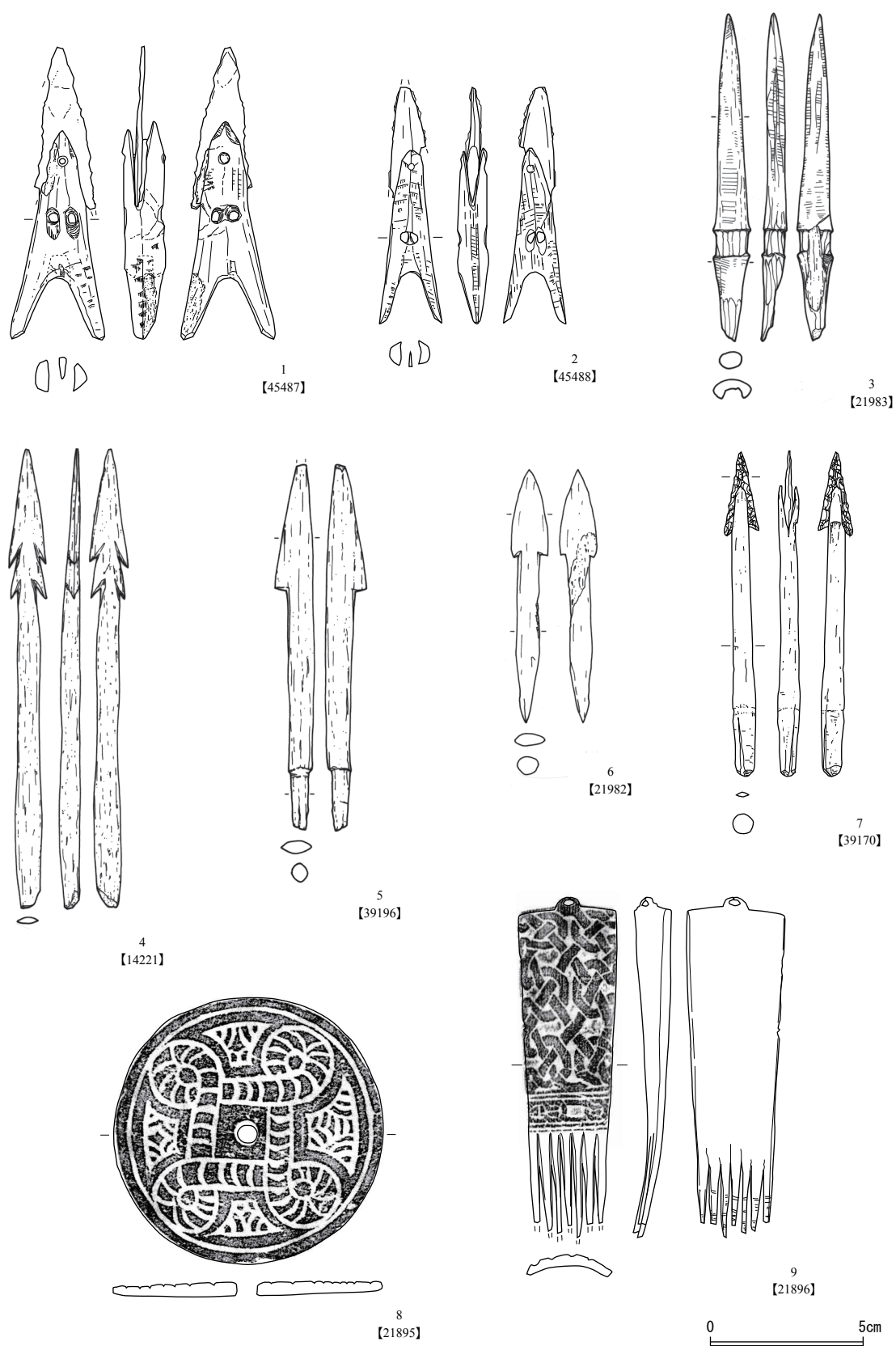


Fig. 6. Artifacts from the Northern Kurils
[1, 2: Raishishi, Paramushir Is., 3-7, 9: Bettobu, Shumshu Is., 8: Shumshu Is.]



1 [39296]



2 [39294]



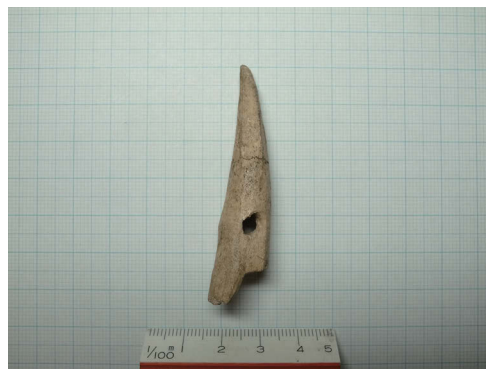
3 [39295]



4 [36996]



5 [15430]



6 [18337]



7 [16362]



8 [23475]

Fig. 7. Artifacts from Sakhalin [1-3: Sakhalin, 4: Taraika, 5: Honto, 6: Minamikaizuka, 7: Higashitaraika, 8: Oso river, Taraika Lake]

It is still difficult to know detailed background of materials from Sakhalin. However, attached label shows that two saddle elements for reindeer used by the Uilta were donated by Osamu Baba (Fig. 7:8). M. Peelle donated two shell specimens from the east coast of Sakhalin. Mataroku Nagao, an amateur archaeologist in Nemuro, also donated a stone axe from Honto. There are also some specimens that are collected by Shojiro Murata, a teaching staff of Hokkaido University who investigated animals of Sakhalin in 1910 and 1912 (Kato 2012). Although we can see other Japanese surname Yamane, the origin of artifacts from this person is unknown.

(2) Archaeological relevance of the collection

The number of pottery from Sakhalin is not large, but three Susuya type pottery examples in near-perfect condition are remarkable in this collection (Fig. 7:1-3). Unfortunately, precise collecting place of these specimens are not recorded. Nevertheless, they are indispensable specimens for typological and technical examination of this pottery type, because the number of material showing whole shape of vessel in this type is still small. A photograph of one of these instances has been already published (Ushiro 2003).

A potsherd from Taraika shown in Fig. 7:4 can be assigned to Higashitaraika type. This material should be also taken into consideration in study of the final phase of the Okhotsk Culture in the future, although this material has not yet been known among archaeologists in Japan and Russia. The author had expected that a composite fishhook (Fig. 7:7) from Taraika Lake is a unique instance. However, according to A. A. Vasilevski, there seem to be some similar examples of the fishhook around Taraika Bay. This ensures the reliability of collecting location of artifacts in the collection.

4. Conclusion

Archaeological materials from the Kuril Islands and Sakhalin in HUNHM would be a representative collections housed in Japan. The large-scale collections from the Northern Kurils have been known as Torii collection in the University of Tokyo Museum and Baba collection in Hakodate City Museum (Torii 1919, Baba 1934, 1936, 1937a, b, c). Archaeological materials in these collections have been already reported, and they have contributed to reexaminations of study history in the Northern Kurils, chronology of pit dwelling and pottery, and cultural relationship in the Japan-Kuril-Kamchatka arc (e.g., Kumaki and Takahashi eds. 2010, Takase and Suzuki 2013). On the contrary, HUNHM collection is mainly consisted of materials from the Southern Kurils; it is estimated to perform complementary role to the above-mentioned collections in the future study.

In Japan, there are some archaeological collection from Sakhalin such as Ito collection in Tohoku University Museum (Ito 1942, 1982), Niioka collection in Education Board of Wakkanai City (Niioka and Utagawa 1992), Funaki collection in Hirosaki University (Sakhalin Kokogaku Kenkyukai ed. 1994)

and Sugihara collection in Meiji University Museum (Sugihara 1933). In recent years, these collections are also utilized for reexamination of age determination of pottery and cultural relationship between Hokkaido and Sakhalin (Sekine *et al.* 2009, Fukuda *et al.* 2012). HUNHM collection is much smaller than these well-known collections, however, we should note that it contains specimens collected in relatively older period before 1910s. In this context, Yanagita collection housed in the National Museum of Japanese History has similar relevance. In 1906, Kunio Yanagita, the father of Japanese folklore, visited Sakhalin and collected some artifacts. They are not necessarily important for contemporary archaeological research due to scarcity of specimen. We, however, have to evaluate academic values of these specimens from the viewpoint of research history in Sakhalin.

Archaeological collection in HUNHM is an old collection that was nearly completed until 1930s, and little specimen was involved additionally in the collection after 1940s. The contents of the collection show strong correlation with scientific activities of the university staffs. In addition, donations from amateur archaeologists and non-archaeologists suggest the social function of HUNHM in Hokkaido. This is the reason why cooperation with modern history, sociology and folklore is needed to evaluate academic values of this collection. Archaeologists and museologist of Hokkaido University are responsible to play a leading role in the multidisciplinary research and to release the information of the collection toward the global community of science. We believe that our approaches will enable the materials in HUNHM to be utilized by scientists from various academic fields in the near future.

Acknowledgement

I am grateful to Dr. Masaru Kato (HUNHM) and Shigeto Inokuma (The Nemuro City Museum of History and Nature) for providing me valuable information for this paper. My thanks would also go to Dr. Alexander A. Vasilevski (Sakhalin State University) for giving me advices and an opportunity to publish such an early study. This paper is a results of research funded by JSPS KAKENHI Grant-in-Aid for Young Scientists (A) (Grant Number 22682008).

References

1. Baba, O. 1934 *A report of archaeological survey in Shumshu Island, the Northern Kuril Islands, Jinruigaku Zasshi*, 49(2). [Re-published in Baba, O. 1979 *Karafuto Chishima Kouko Minzokushi* 1, Hokkaido Shuppan Kikaku Center] (In Japanese).
2. Baba, O. 1936 *A report of the second archaeological survey in Shumshu Island, the Northern Kuril Islands, Jinruigaku Zasshi*, 51(3) [Re-published in Baba, O. 1979 *Karafuto Chishima Kouko Minzokushi* 1, Hokkaido Shuppan Kikaku Center] (In Japanese).
3. Baba, O. 1937a *The 3rd excavation of pit dwellings on Shumshu Island, the Northern Kuril Islands, Kokogaku Zasshi*, 27(3), pp. 207–210. [Re-published in Baba, O. 1979 *Karafuto Chishima Kouko*

- Minzokushi* 1, Hokkaido Shuppan Kikaku Center, pp.109-113] (In Japanese).
4. Baba, O. 1937b Semi-subbtarrenian features and recent excavation on Shumshu Island, *Minerva*, 2(2) [Re-published in Baba, O. 1979 *Karafuto Chishima Kouko Minzokushi* 1, Hokkaido Shuppan Kikaku Center] (In Japanese).
5. Baba, O. 1937c Archaeological investigations in the Northern Kuril Islands and Sakhalin Island, *Kokogaku Zasshi*, 27(11), pp.64-66. [Re-published in Baba, O. 1979 *Karafuto Chishima Kouko Minzokushi* 1, Hokkaido Shuppan Kikaku Center, pp.131-134] (In Japanese).
6. Fukushi, H. 1991 On stone tools from Shana, Etorofu Island, the southern Kuril Islands, *Bulletin of the Rumoi Municipal Museum*, 2. (in Japanese).
7. Etter, C. 1949 *Ainu Folklore: Traditions and Culture of the Vanishing Aborigines of Japan* 1949, Wilcox and Follett Company.
8. Fukuda, M., K. Akoshima, D. Kunikita and K. Yoshida 2012 Reexamination of the Soni type pottery: Typological features and radiocarbon dating of potsherds from Ito Nobuo Collection, *Bulletin of Tohoku University Museum*, 11. (In Japanese with English summary).
9. HUNHM 2002 *Catalogue of Omithological Specimens Donated by T. W. Blakiston*, Botanic Garden Field Science Center for Northern Biosphere, Hokkaido University. (In Japanese) (<http://www.hokudai.ac.jp/fsc/bg/muse/pdfs/cat02.pdf>, last access date 17/04/2014).
10. HUNHM 2003 *Catalogue of Higher Plants, Botanic Garden Field Science Center for Northern Biosphere*, Hokkaido University. (In Japanese) (<http://www.hokudai.ac.jp/fsc/bg/muse/pdfs/cat03.pdf>, last access date 17/04/2014).
11. HUNHM 2004 *Catalogue of Omithological Specimens Exchanged with the American Museum of Natural History*, Botanic Garden Field Science Center for Northern Biosphere, Hokkaido University. (In Japanese) (<http://www.hokudai.ac.jp/fsc/bg/muse/pdfs/cat04.pdf>, last access date 17/04/2014).
12. HUNHM 2008 *Catalogue of Ethnological Materials of the Ainu*, Botanic Garden Field Science Center for Northern Biosphere, Hokkaido University. (In Japanese) (<http://www.hokudai.ac.jp/fsc/bg/muse/pdfs/cat06.pdf>, http://www.hokudai.ac.jp/fsc/bg/muse/pdfs/cat06_2.pdf, last access date 17/04/2014).
13. Inokuma, S. 2013 On bone tools that has been regarded as ice pick of the Okhotsk Culture period, Poster session of Japanese Society for Zooarchaeology. (In Japanese).
14. Ito, N. 1942 A chronological study of prehistoric pottery in Sakhalin, *Kida Hakase Tsuito Kinen Kokushi Ronshu*, Daito Shokan. (In Japanese).
15. Ito, N. 1982 Pottery culture in Sakhalin, *Jomon Doki Taisei 5 Zoku-Jomon*, Kodansha. (In Japanese).
16. Kato, M. 2001 Archaeological materials housed in the Museum Faculty of Agriculture, Hokkaido University (1), *Bulletin of the Museum Faculty of Agriculture*, Hokkaido University, 1. (In Japanese).
17. Kato, M. 2012 On omithological specimens in the Sakkalin Animal Survey Collection as seen from specimen labels, *Bulletin of Botanic Garden Hokkaido University*, 12. (In Japanese).
18. Kato, M. ed. 2012 *A study on contemporary significance of old photographs housed in university museums*, Botanic Garden Field Science Center for Northern Biosphere, Hokkaido University. (In Japanese).
19. Kumaki, T. and K. Takahashi eds. 2010 *Chishima Retto Senshi Bunka no Kokogakuteki Kenkyu*, Graduate School of Humanities and Sociology The University of Tokyo. (In Japanese).
20. Matsuda, K. 2008 *Shozo Koko Shiryō Mokuroku 1: Kyū Toyohiragawa Ugan Kyuryochi Shutsudo Doki no Saikento*, Botanic Garden Field Science Center for Northern Biosphere, Hokkaido University. (In Japanese) (http://www.hokudai.ac.jp/fsc/bg/muse/pdfs/cat05_1.pdf, http://www.hokudai.ac.jp/fsc/bg/muse/pdfs/cat05_2.pdf, <http://www.hokudai.ac.jp/fsc/bg/muse/pdfs/cat05p.pdf>, last access date 17/04/2014).
21. Matsushita, W. 1968 On animal-shaped artifacts from Hokkaido and its adjacent areas, *Hokkaido Kokogaku*, 4. (In Japanese).
22. Mukasa, K. 1934 Travels in the Southern Kuril Islands, *Ezo Ohrai*, 13. (In Japanese).
23. Natori, T. 1934 Prehistoric culture of Hokkaido as seen from pottery, *Hokkai*, 1(4). (In Japanese).
24. Natori, T. 1936 Animal-shaped objects and its distribution in the Northern Japan, *Hokudai Hakubutsukan Hokoku*. [Re-printed in Natori, T. 1972] (In Japanese).
25. Natori, T. 1939 Travels in the Southern Kuril Islands [Manuscript prepared in 1939 and published in Natori, T. 1972 *Ainu to Kokogaku* (1), Hokkaido Shuppan Kikaku Center] (In Japanese).
26. Natori, T. 1940 : Pit-shaped grave of the Late Jomon pottery period in Furukamappu, Kunashiri Island, Hokkaido: A grave of Kohoku C type, *Kokogaku*, 11(4). [Re-printed in Natori, T. 1974] (In Japanese).
27. Natori, T. 1972 *Ainu to Kokogaku* (1): *Natori Takemitsu Chosakushu* (1), Hokkaido Shuppan Kikaku Center. (In Japanese)
28. Natori, T. 1974 *Ainu to Kokogaku* (2): *Natori Takemitsu Chosakushu* (2), Hokkaido Shuppan Kikaku Center. (In Japanese).
29. Niioka, T. and H. Utagawa 1992 *Sakhalin Nanbu no Koko Shiryō*, Hokkaido Shuppan Kikaku Center. (In Japanese with Russian summary).
30. Nomura, T. 1992 A clay vessel with bear-shaped spout, *Hoppo Hakubutsukan Koryu*, 6. (In Japanese).
31. Ohba, T. 1982 *Hokkaido no Kokogaku*, Miyamashobo. (In Japanese).
32. Ohmi, S. 1928 A clay vessel with animal face, *Tohoku Bunka Kenkyu*, 1(2). (In Japanese).
33. Oka, M. and O. Baba 1938 Archaeological Investigations on Shumshu Island, Kuril Islands and Taraika region, Sakhalin Island (Kita chishima shumshu to oyobi Karafuto taraika chiho ni okeru kokogakuteki chosa yoho), *Minzokugakukenyu*, 4(3), pp.489-552. [Re-published in Baba, O. 1979 *Karafuto Chishima Kouko Minzokushi* 2, Hokkaido Shuppan Kikaku Center, pp. 174-261]. (In Japanese).

34. Peelle, M. L. 1932 Ainu pits in the Kurile Islands, *Science*, 75.
35. Saisenkaï ed. 1933a *Hokkaido Genshibunka Shuei*. (In Japanese).
36. Saisenkaï ed. 1933b *Hokkaido Genshibunka Tenrankai, Hokkaido Genshibunka Yoran*. (In Japanese)
37. Sakhalin Kokogaku Kenkyukai ed. 1994 *Karafuto Nishi Kaigan no Koko Shiryo: Funaki Tetsutaro Collection Mokuroku*. (In Japanese).
38. Sekine, T., G. Saito, S. Sugihara and T. Kannari 2009 Production source estimation of obsidian tools from Sakhalin, *Bulletin of Meiji University Museum*, 14. (In Japanese).
39. Suhihara, S. 1933 West coast of Sakhalin: visiting archaeological sites near Honto, Dolmen, 2. (In Japanese).
40. Sugiura, S. 1993 On the Etorofu-type adze : an unique type adze of Etorofu Island, the southern Kuril Islands, *Prehistory and Related Sciences*. (In Japanese).
41. Sugita, M. 1993 Artifacts collected around Rubetsu, Etorofu Island, Nature, History and Culture of Shibetsu : Bulletin of the Historical and Natural Park of the Po River, 2. (In Japanese).
42. Sugiyama, S. 1932 On pottery with decoration of bear, *Jinruigaku Zasshi*, 47(11). (In Japanese)
43. Takaoka, T. 1901 *A report of Investigation in the Northern Kuril Islands*, Hokkaido Prefectural Government. [Re-published from Hokkaido Shuppan Kikaku Center in 1979] (In Japanese).
44. Takase, K. 2002 Use-wear analysis of stone knives from the Amsa-dong site, Seoul, Korea, *Bulletin of Agency for Cultural Promotion in Iwate Prefecture*, 21. (In Japanese with English summary).
45. Takase, K. 2010 Use-wear analysis of Stone Adzes from the Etorofu Island, the Southern Kuril Islands, *Material Culture*, 88. (In Japanese with English summary).
46. Takase, K. 2013 Naiji pottery in Kono Collection housed in Asahikawa City Museum, *Hokudai Shigaku*, 53. (In Japanese with English summary).
47. Takase, K. 2013 Chronology and Age Determination of Pottery from the Southern Kamchatka and Northern Kuril Islands, Russia, *Journal of the Graduate School of Letters*, 8, Graduate School of Letters, Hokkaido University.
48. Takase, K. and K. Suzuki 2013 Re-examination of Baba collection: A basic study on pit dwellings, pottery and stone tools from the Northern Kuril Islands, *Bulletin of Graduate School of Letters Hokkaido University*, 140. (In Japanese with English summary)
49. Torii, R. 1903 *The Kuril Ainu*, Yoshikawakobunkan Press. (In Japanese).
50. Torii, R. 1919 Etudes Archéologiques et Ethnologiques: les Aïnou des Iles Kouriles, *Journal of the College of Science*, 42(1), Imperial University of Tokyo. (In French).
51. Yamanouchi, S. 1964 *Nihon Genshi Bijutu 1 Jomon doki*, Kodansha. (In Japanese).
52. Ushiro, H. 1982 Okhotsk pottery that has pour spout with animal design and handle, *Hokkaidoshi Kenkyu*, 30. (In Japanese).
53. Ushiro, H. 1996 Archaeological materials collected in the Southern Kuril Islands: Mataroku Nagao's collection, *The Memoirs of the Preparation Office of Nemuro Municipal Museum*, 10. (In Japanese).
54. Ushiro, H. 2003 Pottery, stone tools and bone / antler tools of the Okhotsk Culture, in H. Utagawa and T. Nomura eds., *Hokkaido no Kodai 2 Zoku-Jomon, Okhotsk Bunka*, Hokkaido Shinbunsha.