# Overview: Trends in Japanese Archaeological Research, Fiscal Year 2022

Tsuji Hideto

Fiscal year 2022 was a year in which Japanese archaeology began new research activities, even as the COVID-19 pandemic had not yet been fully contained.

The Japanese Archaeological Association was able to hold its General Meeting at Waseda University and its Autumn Meeting at Kyushu University in 2022, thanks to the efforts and cooperation of the respective executive committees. Both were held in a hybrid format, combining faceto-face and online meetings, and many research presentations and exchanges of opinions took place.

This document is designed to present the research results of Japanese archaeology published in 2022, organized by period, region and field; to showcase current achievements in Japanese archaeology, and to share potential future research pathways.

#### 1. The Paleolithic Period

# First half of the late Paleolithic period

The 'Archaeological Journal' featured an article on the first half of the late Paleolithic period titled "When did modern humans arrive in the Japanese archipelago?". Furthermore, a stone tool group from the early Late Paleolithic Age from the Kōsakayama Site² in Nagano Prefecture attracted attention. The 'Human Ecology of Paleolithic Society' focused on a wide range of stone material use and estimates the beginning of the Late Paleolithic Age based on the wide range of obsidian acquisition routes. In addition, 14C dating of existing historical materials is also being attempted.

## Second half of the late Paleolithic period

Various research projects were carried out on this period. The age of the buried forest at the Tomizawa Site <sup>3</sup> in Sendai was measured and compared with other sites. Analysis of obsidian sources and stone tool manufacturing techniques were conducted on the stone tool groups excavated from the Shibukawa II Site<sup>4</sup> and the Yūdachi Site<sup>5</sup>

in Nagano Prefecture. An attempt was made to understand the stone blade stone tools from a "functional-morphological" perspective, and their relationship to environmental changes was discussed in detail. The microblade tool group was examined, including its connection to Northeast Asia. Other publications include "The Pirika Site<sup>6</sup>, an Ice Age Stone Tool Workshop".

#### Paleolithic - Jomon Transitional Period

"Prehistoric Archaeological Essays: Stone Tools and Prehistoric Culture" was published. Topics discussed range from "Northern Microblade Tool Groups", "Honnoki-type Pointed Tool", and "Mikoshiba-type Stone Axe". Materials excavated from the second survey of Fukui Cave in Nagasaki Prefecture were reported. Kurishima Yoshiaki and Yoneda Minoru reported the results of dating carbonized material attached to pottery from the Incipient to Early Jomon Period excavated from Miyanomae Site 8 in Gifu Prefecture. The consistency with other materials will be examined in the future.

# Palaeoenvironment, Stone Materials, and Interdisciplinary Research

"History of Environmental Adaptation among Paleolithic Hunter-Gatherers" 9 was published. Along with examining the chronology and habitat transitions of the Late Paleolithic Period, attempts are being made to reconstruct the paleoenvironment through pollen analysis and other methods.

An international symposium was held at Tohoku University where a global perspective was taken to hold discussions on the latest research results in genetics, archaeology, and paleoanthropology, as well as potential future research directions. In connection with the special exhibition at Iwajuku Museum, "The Research Achievements of Kato Minoru, Pioneer in Research on the Iwajuku Period in the Tōhoku Region" a symposium titled "Tōhoku Shale and

<sup>1</sup>考古学ジャーナル誌上

<sup>2</sup> 香坂山遺跡

<sup>3</sup> 富沢遺跡

<sup>4</sup>渋川Ⅱ遺跡

<sup>5</sup> 夕立遺跡

<sup>6</sup>ピリカ遺跡

<sup>7『</sup>先史考古学論考―石器と先史文化―』

<sup>8</sup> 宮ノ前遺跡

<sup>9 『</sup>旧石器狩猟採集民の環境適応史』

<sup>&</sup>lt;sup>10</sup>「東北地方岩宿時代研究のパイオニア 加藤稔の研究業 績」

the Northern Kantō Region" was held. In addition to evaluating the research achievements of Minoru Kato, the distribution and origin of Tōhoku Shale were examined in conjunction with an understanding of the stone tool groups in the Northern Kantō Region.

The Japanese Society of Paleolithic Archaeology held symposium "Environmental Changes and Human Activities in Southwest Japan at the End of the Pleistocene" 11. A variety of topics were discussed, including the results of pollen analysis in the region, typochronology, analysis of stone tools, sea level change, and the impact of eruptions. In addition to the symposium, analysis of Gero stone in Gifu Prefecture and analysis of the obsidian source of the *Shirataki*-type microblade stone tools <sup>12</sup> in Honshū were also conducted, and stone acquisition and consumption strategies were also mentioned. In relation to analytical methods, it was pointed out that caution is required when analyzing heated stone tools, and methods for classifying obsidian from each source in the Wada-Takayama group <sup>13</sup>were also discussed.

# **Human Migration**

International Symposium "Beringia: Human Diffusion from Eurasia to America" 14 centered on the 'Out of Eurasia' Project<sup>15</sup>. Human migrations from Eurasia to the Americas and other topics were discussed. Archaeology Quarterly published a special issue on "The Early History of Oceanic Expansion". A special issue on "islands hominin adaptation" and in WORLD ARCHAEOLOGY examined the frequency and direction of migrations in the Tsushima Strait. A symposium on the influx of humans into the Japanese archipelago was held in Ina City, Nagano Prefecture, titled "Verification: The Road to Sapiens in the Japanese Archipelago". Voyaging experiments, anthropological studies, and the character and positioning of stone tool assemblages from the earliest stages were discussed, including the Hokkaidō route, the Tsushima route, and the Okinawa route. Comparative research with aspects of Russia was also conducted. Based on the results of the re-excavation of the Kakuniyama site 16 in Yamagata Prefecture, it was explained that a group of people with the 'Yubetsu' technique 'Sakkotsu' type <sup>17</sup> migrated southward from Hokkaidō to Honshū.

#### 2. The Jomon Period

Jomon research appears to be oriented toward learning about the results of various related sciences and pursuing study on the inner workings of Jomon culture.

In Jomon research this year, the situation of environmental change and adaptation, and the transitional period to the Yayoi period were frequently discussed.

## **Environmental Adaptation**

In Environmental Change and Adaptation, "Adaptation to the Environment and Resource Use in the Jomon Period" 18, multidisciplinary and multifaceted studies were conducted on the themes of "Environment and Resources", "Archaeological Sites and Local Communities", "Tool Production and Utilization Technology", and "Groups and Society". In "Jomon Kaishin [Jomon Holocene glacial retreat]: Sea and Land Changes and People's Adaptation", sea-level changes in the Kantō region were empirically reconstructed and the transformation of the Jomon lifestyle in adaptation to changes in the natural environment was discussed, pointing out that the situation in the Bōsō Peninsula during the first half of the Jomon sea-level change and the use of marine resources in the early Jomon period is somewhat different from conventional understanding. The paper examines the actual conditions of the Jomon sea-level rise and shell mound distribution based on shell middens in the Boso Peninsula. The paper also discussed the background of the rapid decline in shell mound formation in the Tokyo Bay area from the late Jomon based on changes in sea level and tidal flat stability during the latter half of the Jomon period, and the possibility that the change in habitation in the late middle Jomon period in the inland Chūbu region was oriented toward broad environmental change and access to water.

Several books have been published on the transition to the Yayoi period. "The Late Jomon Period in Western Japan: Pottery Pattern Areas

<sup>11「</sup>更新世末の西南日本における環境変動と人類活動」

<sup>12</sup> 白滝型細石刃石器

<sup>13</sup> 和田鷹山群内

<sup>&</sup>lt;sup>14</sup>「ベーリンジア:ユーラシアからアメリカへの人類の拡 散」

<sup>15</sup> 出ユーラシアプロジェクト

<sup>16</sup> 角二山遺跡

<sup>17</sup> 湧別技法札滑型

<sup>18 『</sup>縄文時代の環境への適応と資源利用』

<sup>19『</sup>縄文海進―海と陸の変遷と人々の適応―』

and Sites"20 discusses the conditions of the Late Jomon period in western Japan. It examines the transition from the Jomon to the Yayoi period through a variety of means such as utilizing a macro-scale earthenware chronology, formation and development of the incised band pottery, and the state of the Yayoi period. In "Northeast Asia during the Period of Acceptance of Rice Cultivation from the Viewpoint of Pottery Production Techniques"<sup>21</sup> examined the beginning of the Bronze Age in the southern Korean Peninsula, the change from the Neolithic to the Bronze Age in the Liaodong Peninsula, and the beginning of the Yayoi Period in Kyūshū, and the establishment of agricultural society through analysis of pottery making techniques, forms and vessel types. In "Issues on the Beginning of Grain Cultivation in Eastern Japan"22, the origins and subsequent trends of agriculture in eastern Japan were discussed. In addition, a special feature titled "The End of the Jomon Period" was published in Archaeology Quarterly, summarizing the current state of research on the transition from the Jomon to the Yayoi period.

In addition to the above-mentioned environmental change and adaptation and the transition to the Yayoi period, "A Study of Human Remains from Iyai I: Society and Funerary System of the Early Jomon" <sup>23</sup> synthesized both anthropological and archaeological findings.

#### **Scientific Analysis**

In absolute dating, oxygen isotope ratio dendrochronology was used to determine the age of Late Jomon Period wooden pillars, and it was proposed that the Late Jomon period can be narrowed down to approximately 700 years in length, with a lower limit around 470 BC. Consistency with the beginning of the Yayoi Period will be discussed in the future. The origins of artifacts is also being investigated.

17 pieces of pottery excavated from the Dōjitte site<sup>24</sup> in Tsunanmachi, Niigata Prefecture, were analyzed using petrographic techniques, and while in many cases a strong local provenance was inferred, in some cases the provenance was inferred to be in a remote area. In addition, Jomon pottery excavated from Tsugaru Dam sites was analyzed

using newly developed chemical composition analysis utilizing volcanic glass. In the Ishikari Lowlands of Hokkaidō, petrographic analysis of gravestones indicated that there are differences in the selection and arrangement of stone materials in different basins of the lowland, and the significance of these differences is being pursued.

In addition, studies of the remains of plant and animal impressions have been conducted in various areas, and legume plants are discussed, and their issues are also examined.

#### **Artifacts**

A memorial volume in honor of Imafuku Rikei<sup>25</sup>, "Archaeology of Objects, Structures, and Society"<sup>26</sup> was published, with a relatively large number of discussions related to the Mid-Middle Jomon Period.

The study of large four-handled deep bowls<sup>27</sup> distributed in the central highlands to the southwestern Kantō region in the latter half of the *Shinmei* style<sup>28</sup> in the mid to late Middle Period pointed out that there are two types: one is highly uniform and widely distributed, and the other is strongly regional and locally distributed. Among the *Shinmei* style pottery from the western part of the Tōkai region, the formation of a group of *Rittai-Sōshoku* style<sup>29</sup> pottery and the evolution of its lineage were discussed, and the act of intentionally incorporating foreign pottery information into local pottery information was pointed out. In the Late-Late Period, the study of spouted vessels stands out.

The morphology and decoration of a similar group of pottery excavated at the *Kainohana* shell midden site<sup>30</sup> in Chiba Prefecture was examined, and it was pointed out that while imitating Tōhoku spouted pottery, the design was modified in a Kantō style, indicating a broad inter-type negotiation in the eastern part of the country. Similarly, a piece of spouted earthenware from the mid to early Late Kantō region was examined, and the relationship between Kantō and Tōhoku was examined. The transition and genealogy of the northern half of the Kyūshū region is also discussed.

In addition to the discussion of the genealogy and distribution of pottery, there are also studies that take a slightly different direction.

<sup>20 『</sup>西日本縄文時代晩期の土器型式圏と遺跡群』

<sup>21 『</sup>土器製作技術からみた稲作受容期の東北アジア』

<sup>22 『</sup>東日本穀物栽培開始期の諸問題』

<sup>&</sup>lt;sup>23</sup> 『居家以人骨の研究 I ―早期縄文人の社会と葬制―』

<sup>24</sup> 道尻手遺跡

<sup>25</sup> 今福利恵

<sup>26 『</sup>モノ・構造・社会の考古学』

<sup>27</sup> 大型 4 单位把手付深鉢

<sup>28</sup> 神明式

<sup>29</sup> 立体装飾系土器

<sup>30</sup> 貝の花遺跡

The changes in the amount of Jomon pottery excavated from the Kitashirakawa Jomon site<sup>31</sup> in Kyōto Prefecture are examined, and an attempt has been made to reconstruct the demographics of the period based on the amount of pottery excavated. "Low-skilled earthenware" of the middle Jomon period was also examined, and it was argued that these were made by children imitating the adult potters around them or in the process of learning pottery making. There were also a number of discussions on clay figurines.

Focusing on changes in spatial expression, the changes from early to middle earthenware figurines were discussed, and the nature of clay figurine modeling was discussed.

Refutations from specialized fields were also presented in response to new theories recently proposed concerning clay figurines.

With regard to clay artifacts, the development of human expression in earthenware, clay artifacts, and clay figurines was discussed, focusing on the omission, destruction, and resurrection of body parts, and the social background was also considered.

Several articles on stone tools and stone artifacts were published. Stone jewelry excavated from the Kurawa site<sup>32</sup> on Hachijō-jima Island was examined, and it was pointed out that it is linked to the transition of stone jewelry in the late Early Jomon to early Middle Jomon periods in the Japanese archipelago. The method of obtaining obsidian was discussed based on the distribution of obsidian in the Gunma area during the Early to Middle Jomon Period. Stone tools related to the Suzu-Oke technique 33 excavated from the Shimoyoshida site 34, Fukuoka Prefecture, were reviewed, and the aspects of their influx were analyzed. The chronology of Late Jomon stone poles mainly from the Ishikari Lowlands of Hokkaidō was presented and their background was discussed. Large stone poles excavated from the Middle to Late Jomon period sites were also examined, and the phenomenon of "intensification" of the use of large stone poles was observed in the  $Angy\bar{o}^{35}$  3b and 3c style periods.

#### **Settlements**

The influence of the southern Kantō and Kōshin regions on the rise and fall of the Tōchi [overturned] deep bowls<sup>36</sup> excavated from the floor of dwellings in Fukushima Prefecture was discussed. The diffusion and reception of information on the 'outdoor pottery burial'<sup>37</sup> sites in the Fukushima Prefecture area from the Late Middle to the Early Late Period were discussed. The timing of the construction of dugout-pillar buildings found in the mid-Holocene settlements was examined. It was pointed out that the dugoutpillar buildings that appeared around the Goryōgaidai style period <sup>38</sup> would soon come to an end and be replaced by ring settlements of the Aramichi <sup>39</sup> and Tōnai <sup>40</sup> style periods, suggesting a shift from a matrilineal to patrilineal society. An examination of the repeated construction of dwelling sites in the western Kantō and Kōshin regions from the late Jomon Period to the early Late Jomon Period indicated the separation and fixation of residential and grave sites, the subdivision of the settlement structure, and the existence of long-term maintenance and management of space-use. The classification and compilation of stone-lined graves in the Gunma area was conducted, and the changes in the combination of earthen mound graves and stone-lined graves discussed the increasing complexity of post- and late-Jomon society.

Research related to human skeletal remains recovered from tombs was published. A detailed examination of human skeletal remains excavated from Site B202 at Kusakari Shell Mound<sup>41</sup>, Chiba Prefecture, Japan, led to a reconstruction of the burial process and characteristics of multiple individual aggregation burials <sup>42</sup>. The burial position of the human skeletal remains (No.24), who was killed in a shark attack, from Tsukumo Shell Midden<sup>43</sup> in Okayama Prefecture, showed that the body was folded in two, which is relatively rare, and the existence of a spell to contain the spirits of the deceased was discussed. There are also diverse studies that differ from the above research topics.

### Jomon Mythology

<sup>31</sup> 北白川縄文遺跡群

<sup>32</sup> 倉輪遺跡

<sup>33</sup> 鈴桶刃器技法

<sup>34</sup> 下吉田遺跡

<sup>35</sup> 安行式

<sup>36</sup> 倒置深鉢

<sup>37</sup> 屋外土器

<sup>38</sup> 五領ヶ台式期

<sup>39</sup> 新道式期

<sup>40</sup> 藤内式期

<sup>41</sup> 草刈貝塚

<sup>42</sup> 死体聚合墓

<sup>43</sup> 雲貝塚

The concept of 'dichotomy' was derived from an examination of pottery burial remains at the Andoji Temple site<sup>44</sup> and Kaidōmae C site<sup>45</sup> in Yamanashi Prefecture, and an attempt was made to decipher the "structure" of Jomon mythology by looking at the relationship between the two groups of artifacts.

# **Marine Expansion**

In the "Archaeology Quarterly" No. 161 (Yuzankaku), a special feature titled "The First History of Marine Expansion" 46 was published, which attempted to reconstruct the history of marine expansion in the Jomon period. The same issue of "Did the Jomon Cross the Sea? Exploring the Boundaries of Cultural Areas and Languages" 47 also on maritime expansion, examined the reality of transoceanic traffic and discussed the relationship between the two.

## **History of Scholarship**

The book, "Continued Basic Research on the History of Japanese Prehistoric Archaeology: The Studies of Yamanouchi Sugao and the People Around Him" 48 as well as "The Cave and the Archaeologist: Footprints and Results of Site Investigations" 49 were published. In addition, the beginning of obsidian research and the Suwa archaeological site survey are mentioned.

In relation to World Heritage, in "Jomon and World Heritage: Questioning the Universal Value of the Jomon Culture in Human History"<sup>50</sup>, the universal value of the "Jomon culture" in human history is questioned through the "Jomon sites in Hokkaidō and the northern Tōhoku region".

## 3. The Yayoi Period

The main theme of this year's Yayoi period research is the identification of dates and their chronological status and significance, including the newly proposed date for the beginning of the Yayoi period.

## **Dating**

44 安道寺遺跡

A new calibration curve for 14C dating, intcal20, has been published and used to develop chronologies. The results of 14C dating and verification of oxygen isotope dendrochronology were also presented. In addition, a special issue of Archaeology Quarterly titled "*The End of the Jomon Period*", 51 was published, and a number of articles on this topic have been published this year.

# **Regional Studies**

Research on the state of Yayoi society is continuing in various regions. In northwestern Kyūshū, the start of local irrigated agriculture was considered to be in the 8th-9th century BC. Dating of latent indentation materials in Kagoshima Prefecture has been reported to be close to this date.

A record of the symposium "The Reality of Society in the Late Yayoi Period"<sup>52</sup>, found in the Journal of Ancient Studies<sup>53</sup>, discussed the status and direction of research focusing on residential remains in the southern Kinki region.

In the Kantō region, a collection of papers under the title, "Yayoi Culture in the Southern Kantō Region" <sup>54</sup> was published, examining the agriculturalization of the southern Kantō region from a variety of perspectives, focusing on research related to the Nakazato site <sup>55</sup> in Odawara City. A model for expanding arable land to cope with population pressure was presented and is considered one of the main points of discussion.

In the Tōhoku region, the Japanese Archaeological Association held a session on "The Reception and Development of Yayoi Agricultural Culture in the Northeastern Archipelago"<sup>56</sup>, during which the state of rice cultivation in the northern Tōhoku region was discussed from various perspectives. The session also examined the composition of rice paddies and farming tools in the southern Tōhoku region. The publication of a book, "Issues in the Early Cultivation of Grains in Eastern Japan"<sup>57</sup> discussed issues of society and livelihood based on 14C dating of pottery indentations and carbonized grains. A special issue

<sup>45</sup> 同県海道前 C 遺跡

<sup>46 「</sup>海洋進出の初源史」

<sup>&</sup>lt;sup>47</sup>『縄文人は海を越えたか?「文化圏と言葉」の境界を探訪する』

<sup>48 『</sup>続 日本先史考古学史の基礎研究―山内清男

の学問とその周辺の人々一』

<sup>49 『</sup>洞窟と考古学者 遺跡調査の足跡と成果』

<sup>50『</sup>縄文と世界遺産―人類史における普遍的価値を問う』

<sup>51 『</sup>縄文時代の終焉』

<sup>52 「</sup>弥生後期社会の実情」

<sup>53</sup> 古代学研究

<sup>54 『</sup>南関東の弥生文化』

<sup>55</sup> 中里遺跡

<sup>56 「</sup>列島東北部における弥生農耕文化の受容と展開」

<sup>57『</sup>東日本穀物栽培開始期の諸問題』

titled "Tōhoku in the Late Yayoi Period" <sup>58</sup> was published in The Archaeological Journal <sup>59</sup>, which reviewed Tennōyama-style <sup>60</sup> pottery, its spread, genealogy, and Tennōyama-style society.

#### **Settlements**

Prominent settlement sites were discussed in depth, and work on upland settlements were also taken up. In the area of settlement research, the 60th anniversary of the Ōnaka site<sup>61</sup> was taken as an opportunity to review the housing and excavated addition, "The Forefront artifacts. In Makimukugaku",62 was published to commemorate the establishment of the Sakurai City Research Center for Makimukugaku<sup>63</sup>. This large volume of over 700 pages, contained a variety of papers on Yayoi society in general, as well as on the Makimuku site<sup>64</sup>. At the Yoshinogari site<sup>65</sup>, the internal structure of the village was analyzed, and the influence of the continent was discussed. At the Karako-Kagi site<sup>66</sup>, a study was published on the estimation of the function of the moat encircling the site based on a re-examination of the moat encircling it.

In terms of upland settlements, a special issue of the "Ancient Culture" <sup>67</sup> magazine, "Reconsidering Yayoi Period Upland Settlements (1 & 2)" <sup>68</sup> was published, in which upland settlements were reexamined from a current perspective, including views from GIS.

There has also been progress in the study of artifacts in each theme.

# **Pottery Research**

The chronologies of earthenware research were introduced in various regions. In addition to the examination of the academic history of Sugustyle pottery<sup>69</sup>, a new chronology was proposed. Mikawa Archaeology<sup>70</sup> published a special issue on the Yayoi earthenware dating of the Mikawa area from a current perspective and published a model for the transmission of pottery types. Apart from chronologies, other studies on pottery include

quantitative analysis of Yayoi pottery forms using three-dimensional data, and the genealogy and chronology of Konoha-style patterns<sup>71</sup>. Other areas of research being pursued include academic history, pottery genealogy, and exchange.

### **Stone Tool Research**

The Niigata Prefecture Archaeological Society's Fall Symposium, "The Yayoi Period in Niigata from the Perspective of Lithic and Iron Artifacts" was held to analyze the emergence of an agricultural society in the Niigata Prefecture area. Some individual studies have investigated the genealogy of angular stone axes, the distribution of stone knives, and the existence of village structures and production groups.

#### **Bronze Goods**

The symposium "Reviewing Yayoi Period Society through Dōtaku (bronze bells)"<sup>73</sup> was held to commemorate the 50th anniversary of the discovery of the Dōtaku mold at the Higashi-Nara site<sup>74</sup>, confirmed the progress of Dōtaku research and discussed the process of Dōtaku formation. The symposium also included examples of Dōtaku-shaped clay artifacts, and an attempt to reconstruct Dōtaku depicted on illustrated maps using CAD.

## **Iron Goods**

At a symposium in Niigata Prefecture (see above), iron artifacts were discussed along with stone tools, an analysis of grinding stones, the understanding of the influx of iron artifacts, and comparisons with adjacent sites were made. Archaeology Quarterly featured a special issue on "The Archaeology of Iron and Novel Research Trends" <sup>75</sup> which attempted to analyze the relationship between the organization of iron tools and the processing process, and the production and distribution of iron tools in northwestern Kyūshū.

The Archaeological Journal <sup>76</sup> also published a special feature, "Yayoi Period Trade in the Sea of Japan seen through Iron" <sup>77</sup>. The

<sup>58 「</sup>弥生後期の東北 |

<sup>59</sup> 考古学ジャーナル

<sup>60</sup> 天王山式

<sup>61</sup> 大中遺跡

<sup>62 『</sup>纏向学の最前線』

<sup>63</sup> 桜井市纒向学研究センター

<sup>64</sup> 纏向遺跡

<sup>65</sup> 吉野ヶ里遺跡

<sup>66</sup> 唐古鍵遺跡

<sup>67</sup> 古代文化

<sup>68 「</sup>弥生系高地性集落の再考論(上・下)」

<sup>69</sup> 須玖式土器

<sup>70</sup> 三河考古

<sup>71</sup> 木葉文

<sup>72 「</sup>石器・鉄器からみた新潟の弥生時代」

<sup>73『</sup>銅鐸から弥生時代社会を見直す』

<sup>74</sup> 東奈良遺跡

<sup>75 「</sup>鉄の考古学・最新研究の動向」

<sup>76</sup> 月刊考古学ジャーナル

<sup>77「</sup>鉄からみた弥生時代の日本海交易」

relationship between wooden handles and iron products at the edge of blades, traces remaining on bone horn vessels, and analysis of grinding stones were examined for their dissemination and use. In "A Study of the Early Iron Age in East Asia"<sup>78</sup>, the development of blacksmithing techniques and iron production in northern Kyūshū was analyzed from an East Asian perspective. There is also a review of the oldest evidence of blacksmithing in the Kantō region. Other publications include "Ancient Swords and State Formation"<sup>79</sup> and "Swords: Weapons and Ancient Society"<sup>80</sup>.

## **Wooden Artifacts**

"The Archaeology of Woodworking" was published, showcasing the transformation of woodworking techniques from the Jomon period to ancient times. In addition, "Timber Linking Yayoi Society" 82, the acquisition of timber to the distribution of products was discussed, and an image of Yayoi society in the Kinki region was expanded on. The resource management of deciduous hardwoods was also discussed.

#### **Beads**

In the study of beads, the state of long-term bead possession, production and distribution of bead objects, and their formalization was discussed. The distribution and production of beads in the Hokuriku and Tōhoku regions was also discussed.

# Yayoi people as seen through Ancient Human Skeletal Remains

"Research Report of the National Museum of Japanese History" 83 published the results of "Elucidating the History of the 'Yaponesian' People Using Archaeological Data" 84. The process of formation of the Yayoi people was pursued based on archaeological data, dating, DNA analysis, and nitrogen isotope ratios. The diet of the Yayoi people was also studied based on dental disease, and research related to traits of the Yayoi people is also underway.

# Epi-Jomon Period, Kaizuka Period

The book "Resource Use in the Continental Jomon Culture" 85 was published, and the society of

78 『東アジア初期鉄器時代の研究』

- 79 『古代刀剣と国家形成』
- 80 『刀剣―武器から読み解く古代社会―』
- 81 『木工の考古学』
- 82 『木材がつなぐ弥生社会』
- 83 『国立歴史民俗博物館研究報告』
- 84 「考古学データによるヤポネシア人の歴史の解明」

the Continental Jomon culture was studied in terms of various factors such as the use of plant resources. The book also discusses the spread of the Continental Jomon culture to the northern part of Honshu and other regions. The distribution and evolution of shell accumulation sites in the supply areas were also discussed.

# Yayoi Culture in East Asia

The Society of Ancient Arms<sup>86</sup> featured a special edition on foreign weapons and armors and examined the genealogy and acceptance of metal weapons. The process of influx and establishment of bronze artifacts from the Korean Peninsula was also discussed at the "Japan-Korea Joint Academic Symposium: Bronze Production Technology of the Korean Peninsula and Ancient Mirrors in East Asia II" <sup>87</sup>. At the 2022 Fukuoka conference of the Japanese Archaeological Association, a session on "Similarities and Differences in Culture and Society Across the Strait" <sup>88</sup> was organized to discuss Japan-Korea relations through the catalyst of the Yayoi period.

# **Diverse Research Developments**

Facial expressions and clay doll artifacts were compiled and reexamined, and the background of clay artifacts in the shape of weights 89 was pursued. In painting research, regional characteristics in pottery painting in the Kinki region were discussed based on motifs and drawing methods, and new examples from the San'in region were also introduced. In the study of mercury vermilion, "Yayoi People Fascinated with Vermilion: The Wakasugiyama Cinnabar Mining Site" was published. It was also discussed that offerings of stone pestles and mortars spread from various locations along the Japan Sea coast during the latter half of the Yayoi period. In the analysis of animal remains, the arrival of chickens and its background were introduced, and the relationship between domestication and infectious diseases was discussed based on perforations and arrangements of wild boar mandibles. "The Archaeology of

<sup>85 『</sup>続縄文文化の資源利用』

<sup>86</sup> 古代武器研究会

<sup>87「</sup>韓日共同学術シンポジウム 韓半島の青銅器製作技術と東アジアの古鏡 II |

<sup>88 「</sup>海峡を挟んだ文化・社会の相似と相違」

<sup>89</sup> 分銅形土製品

<sup>90</sup> 若杉山辰砂採掘遺跡

Scales and Weights"<sup>91</sup> discussed scales and weights from the Yayoi period to the Medieval Period. There is also a study that looks into the decimal system of the Yayoi period. Practices related to the recognition of the Yayoi calendar are being conducted. The Itaishi inkstone<sup>92</sup>, which is related to the use of writing, has been the focus of attention and controversy recently.

In terms of research on the scholarship itself, the "Yayoi Culture Museum Research Report" has published a number of summaries of Yayoi culture research from the 1990s to the present from various points of view.

#### 4. The Kofun Period

# **Kingdoms**

Several works have been published on the establishment process of the Yamato kingdom, combined with its characteristics. "Himiko and the Yamato Kingship"94 and "The Formation Process of the Ancient State: Theory, Course, and Archaeology" 95 discussed the process of the establishment of kingship. In addition, "Regions of Ancient Japan"96 was published as a successor to "Ancient Japan" 97, in which "Ancient Keyhole-Shaped Tumulus in Yamato and Kawauchi" and "The Northern Limit of Ancient Keyhole-Shaped Tumuli and the Tumuli of the 'Emishi" were published. The 10<sup>th</sup>-anniversary commemorative volume "The Frontiers of Makimukugaku" was published, in which the following topics were discussed: "What is a 'Kofun' - Structural and Regional Reexamination of its Origin", "Round and Flat-Topped Tumuli in the Kinai Region during the Establishment of the Yamato Government", "Is the Middle Kofun Period of the Eastern Kingdom a Nation Phase?", "Kofun and Haniwa Rituals" among many other papers related to the Kofun period. In the symposium "Reexamination of the Genealogy of the Tombs of the Chiefs" 99, the Society for Ancient Studies of Japan examined the genealogy of the tombs of chiefs from various perspectives, including "The Genealogy of the

91『秤と錘の考古学』

Tombs of the Chiefs in the Pre- and Middle Kofun Period from the Viewpoint of Burial Goods".

# **Regional Studies**

"Exploring Tokyo's Kofun Tombs" 100 and "The Archaeology of Katsuragi: The Forefront of Prehistoric and Ancient Studies"<sup>101</sup> were published. Both are ambitious works that carefully explore tombs of the region. A separate volume of Archaeology Quarterly featured kofun tumuli in the Yodo River basin. Included in the volume are articles "Amamiyayama Kofun Bentenyama Kofun Tumulus Group", "The Left Bank of the Yodo River and its Keyhole-shaped Tumuli", "The Age of Imashirozuka Tumulus", and "The Kofun Period in the Yodo River Basin". The "Yubunesaka No. 2 Tumulus Project 102 Results Report" materials were published, and the study related to the excavated artifacts was made public. In the reports, "Study of the Haizukayama Kofun Tumulus" 103 and "Study of the Dainichizuka Kofun Tumulus in the City of Namegata, Ibaraki Prefecture: Report of the 2015 Excavation" were published. Also published was "Study of the Teranishi 1 Tumulus, Toyohashi City, Japan" which reported the results of rearrangement of excavated materials.

The special exhibition "Kofun Culture of Izumo, Iwami, and Oki" was held to commemorate the 50th anniversary of the opening of Yakumotatsu Fudoki-no-Oka Museum, and the catalog will include a discussion of the 'Izumo theory'.

## **Tumuli & Burials**

Involving the standard of keyhole-shaped tumuli, "Distribution Structure of Design Techniques for Keyhole-Shaped Tumuli" and "The Tomb of the Monarch of Wakoku in the Saki Kofun Tumulus Group and Reproduction of Tumuli" were published. The inheritance and spread of tumuli design standards are discussed. In relation to tumuli-building stones, "Specific Aspects of Tumuli Stone Collection in Tsumiishizuka Kofun Tumulus in the Early Kofun Period" discussed the supply relationship of stone materials, with "Genealogy of Tumuli Stone Masonry in the Period

<sup>92</sup> 板石硯

<sup>93 『</sup>弥生文化博物館研究報告』

<sup>94 『</sup>卑弥呼とヤマト王権』

<sup>&</sup>lt;sup>95</sup> 『古代国家形成過程論 理論・針路・考古学』

<sup>% 『</sup>シリーズ 地域の古代日本』

<sup>97 『</sup>古代の日本』

<sup>98 『</sup>纏向学の最前線』

<sup>99『</sup>首長墓系譜の再検討』

<sup>100 『</sup>東京の古墳を探る』

<sup>101 『</sup>葛城の考古学―先史・古代研究の最前線―』

<sup>102</sup> 湯舟坂 2 号墳プロジェクト

<sup>103 『</sup>灰塚山古墳の研究』

<sup>&</sup>lt;sup>104</sup> 『茨城県行方市大日塚古墳の研究 2015 年発掘調査報告 書』

of the Establishment of the Keyhole-Shaped Tumuli" discussed the genealogy of tumuli stone masonry.

In relation to the landscape of tumuli, the Makimuku tumulus group was discussed ("Makimuku Tumulus Group and Surrounding Landscape"). The universal applicability of the discussion will be examined in the future. In terms of location and transportation routes, "The Mozu-Furuichi Kofun Tumulus Group from the Perspective of Ancient Transportation Routes" and "Location of Early Kofun Tumuli and Highland Settlements" were discussed.

With regard to pit burials, "Funerary Order and Political Power in the Kofun Period" 105 showcased structural analysis of pit burial facilities, along with the extraction of commonalities and regional characteristics, and their meanings were discussed. Other topics include "Vertical stone chambers in the Kinai region from the viewpoint of stone materials: regional characteristics and changes in use of stone chamber materials", "Burial facilities in the early Kofun period: a review of clay burial chambers", and "Drainage holes in stone coffins" were published.

On the other hand, with regard to horizontal tunnel burials, "Kofun Period Society as Seen from the Horizontal Tunnel Burials" was published in Archaeology Quarterly, and many points of discussion were presented. Other articles include "The Background of Status and Instrumental Succession in the Kofun Period as Seen from Horizontal Tunnel Burials", "Distribution Patterns of Tsukuba Metamorphic Rocks in the Late Kofun Period", and "Quantitative Analysis of Horizontal Stone Chambers Based on Three-Dimensional Measurements: Focusing on the Isezuka Tumulus in Gunma Prefecture" were published.

Finally, with regard to tumuli groups, the theme "Kofun Period Tumuli in the Tōkai Region" was taken up at the Tōkai meeting of the Society for Archaeological Research, and the aspects of each region were discussed in detail. The lecture "Considering the Late Kofun Tumuli at the Foot of Mount Ashitaka" was given in connection with the special exhibition "Pioneers in Mount Ashitaka: The Largest Kofun Tumulus Group in the Tōkai Region and Regional Revival" held at the Numazu City Library.

#### **Artifact Research**

In artifact research, the *Haniwa* Research Group<sup>106</sup> held a symposium titled "Classification and Arrangement of *Haniwa*"<sup>107</sup> and attempted to reorganize *Haniwa*. In addition, many articles were published in "Haniwa Research"<sup>108</sup> on the theme of *Haniwa* production among others. In the "Journal of *Haniwa* Research" <sup>109</sup>, many articles were published on the theme of *Haniwa* production in the latter half of Kofun period. Some of these point out the existence of the buried person among the group of *Haniwa*.

In the study of burial goods, the Chūgoku-Shikoku Association for the Study of Keyhole-Shaped Tumuli<sup>110</sup> has continuously pursued middle Kofun period chronologies and has published a collection of related materials.

In the study of bronze mirrors, "Kagami no Kofun Jidai (The Kofun Period of Mirrors)" was published, discussing the possession and use as burial goods of mirrors. In addition, the issue of long-term possession and transmission was addressed in "Mirror Transmission and Groups". Other research projects include scientific analysis and the compilation of mirrors from university collections.

In the field of sword research, "Swords: Weapons and Ancient Society" 112 was published, which provides a diachronic overview of sword culture and regional characteristics. "Ancient Swords and the Formation of the State"113, which adds decorated large swords from the late and terminal periods to the previous findings. The Tenri City Tourism Association's 65th anniversary lecture "The Furu Site: Before and After the Mononobe Clan," includes a discussion of swords. "Ancient Swords: The Origins of Japanese Swords" 114 was published, summarizing the transition from straight swords to curved swords. In the "Production and Distribution of Keito no Tachi" section, a new edition plan was proposed according to the shape of the handle. A discussion on the large sword excavated from the Yubunsaka No. 2 burial mound was published in connection with the debriefing session.

There were many discussions on burial goods consisting of weapons, armors, and horse tack. This discussion included the "Significance of

<sup>105 『</sup>古墳時代の葬制秩序と政治権力』

<sup>106</sup> 埴輪検討会

<sup>107「</sup>埴輪の分類と編年」

<sup>108 『</sup>埴輪研究』

<sup>109</sup> 埴輪研究会誌

<sup>110</sup> 中国四国前方後円墳研究会

<sup>111 『</sup>鏡の古墳時代』

<sup>112 『</sup>刀剣 武器から読み解く古代社会』

<sup>113 『</sup>古代刀剣と国家形成』

<sup>114 『</sup>古代の刀剣―日本刀の源流』

Kofun Tumuli with Multiple Iron Weapons and Horse Tack" and "Military and Diplomacy in the Kofun Period", which discussed the large number of burials, their relation to military organization, and their practicality. In the Journal of Ancient Arms Research, "Weapons and Armor as Ritual Armor: The Development of Armor Ritual in the Ancient and Medieval Periods" and "What is Weapon Burial in the Kurozuka Tumulus: Aspects of Weapon Burials in the First Half of the Early Kofun Period" were published. In "Armor, Military Organization, and Warfare in the Kofun Period" the author argues that the name "Tankō" should be abolished, objecting to previous reconstructions.

In the study of armor, the Archaeological Journal <sup>116</sup> published a special issue on "The Frontiers of Kofun Period Armor Research". The following articles were published: "Toward Clarifying Armor Manufacturing and Production Organization in the Kofun Period", "The Problem of the Concentration of Armor Excavated from Kofun Tombs: The Case of Iida Tumulus Group", "The Current Status and Possibility of 3D Data Analysis in Armor Research", "Korean Banded Armor" by Isahaya Naoto<sup>117</sup>, and "Current Status and Issues in Late Kofun Armor Research" by Yokosuka Tomomichi<sup>118</sup>.

In the "Society of Ancient Arms" 119 the foreign elements of weapons were examined under the theme of "The Introduction of Imported Weapons and Armor in Ancient Times and Aspects of the Development of Production Technology". The following articles were published: "People with Bronze Daggers: The Origin of Weapons in the Yayoi Culture", "Aspects of Yayoi Society as Seen through Imported Weapons", "Foreign and Japanese Armor of the Kofun Period", "Expansion of the Production of Decorated Swords and Migrant Producers", "Comparative Study of Weapons in Ancient Japan", "Weapons and Armor Production Organization and Imported Technology and Culture from Literature: A Closer Look at the Family Registers".

In the field of horse tack research, several publications include "Chronology of Horse Tack and External Negotiations in the Middle Kofun Period", "Study of Horse Tack Excavated in the Hokuriku Region (1): Focusing on Examples from Toyama and Ishikawa Prefectures", and "Imported Decorated Horse Tack from the Late Kofun Period:

Introduction of Gilt Bronze Fittings and Examination of Horse Tack from the Saitama Shōgunyama Tumulus".

The Archaeological Journal published a special issue on gilt bronze artifacts. It includes "The Rise and Fall of East Asian Dynasties and the Diffusion of Gilt-bronze Products", "Metal Bow and Arrows of the Kofun Period", "Aspects of the Reception of Precious Metal Accessories in the Kofun Period", "The Craft Style of Banded Metal Fittings and Local Chiefs", and "Decorated Horse Equipment from Daikaya [Gaya confederacy] Influenced by Silla". Other topics include "Characteristics of Clustered Tumuli: Focusing on the Tsukawara Tumulus Group", and "Changes in Earrings in the Late Kofun Period and the Late Terminal Period and Their Background: The Hakata Bay Coastal Area and the Central Kinki Region".

In the field of bead research, "The Road of Glass: Brilliance Linking Ancient Eurasia" was published. In the discussion, "Beads and Bead Production from the Furu Site", "Long-Term Possession of Beads from the Yayoi and Kofun Periods", and "A Study of Small Glass Beads Excavated from Kofun Tombs in Mibu Town, Tochigi Prefecture, based on the Quantities, Manufacturing Techniques, and Chemical Compositions" were among those published.

In the field of stone artifacts and stone model, "Production and chronology of stone ritual bracelets" was published, which presents six levels of chronology. In addition, "Funerals and Rituals by Stone Models: The 'Honest' Kofun Group" was published.

In the field of settlement and pottery theory, "Agriculture and Group Structure in the Yayoi and Kofun Periods" 121 was published. It discusses social structure from the viewpoint of water use and irrigation. The Kyūshū Association for the Study of Keyhole-Shaped Tumuli published "The Dynamics of Settlements and Kofun Period Tumuli III" which pursues in detail the dynamics of settlements in each region and examines their correspondence with Kofun period tumuli. Other topics include "Settlements and Development around Middle Kofun Period Largesized Keyhole-Shaped Tumuli" and "Kofun Period Settlements in the Main Basin of the Yodo River and the Northern Coast Area".

<sup>115</sup> 短甲

<sup>116</sup> 考古学ジャーナル誌上

<sup>117</sup> 諫早直人

<sup>118</sup> 横須賀倫達

<sup>119</sup> 古代武器研究会

<sup>120 『</sup>ガラスの来た道 古代ユーラシアをつなぐ輝き』

<sup>121 『</sup>弥生・古墳時代の農耕と集団構造』

In the field of pottery research, the Journal of Kofun Period Pottery Research <sup>122</sup> includes a variety of discussions on the chronology, distribution, and imported pottery. Other articles include "Interregional Interaction in the Kai Region in the Early Kofun Period: Based on the Classification of S-shaped Jars Excavated from Settlement Sites and Square Peripheral Tomb Tombs", "Sue ware Excavated from the Furu Site", and "Production and Clan Recognition in the Kofun Period: Focusing on Sue ware Production". Stoves, cooking methods, etc. were also discussed.

Iron production was the subject of a special issue of Archaeology Quarterly, "The Archaeology of Iron: Recent Trends in Research". The special feature discussed iron import routes, distribution, genealogy, smithing remains, and various other issues. The other topic was "The Transformation of Blacksmithing Techniques at the Beginning of the Kofun Period and its Background".

In the field of wooden artifacts, "Use of Wood Based on Wood Artifacts Excavated from the Furu Site" and "Use of Bark and Production of Wood Vessels at the Furu Site" discussed the use of wood and bark.

In the study of horse breeding, "Pastoral Landscape Archaeology: Early Kofun Period Horse Breeding and its Surroundings" <sup>123</sup> was published. Another is "Horse Use at the Furu Site from the Perspective of Horse Remains.

As for salt production, "Salt production earthenware and salt use at the Furu site" and "The meaning of salt-making pottery excavated at the Shitomiya-kita site<sup>124</sup>" were published.

In the field of human skeletal remains and kinship, "Kinship and local community in the Kofun period" in the second session of the Fukuoka meeting of the Japanese Archaeological Association is worthy of special mention. The topics discussed included "Prestige goods transfer and kinship in the Kofun period", "Kinship and ancient state formation in the Kofun period", "Kinship and rituals in the Kofun period", and "Regional characteristics of human remains from the Kofun period".

Studies in other areas include "The Production and Development of Curved Blade Sickles in Ehime Prefecture", "Production Tools of

Red Vermillion Brought to the Tombs of the Yayoi and Kofun Periods", "The compositional principles of A-type and B-type straight arc patterns in stone carvings"<sup>125</sup>, and "A study on the unit figures of the Kotaimon and Chokkomon <sup>126</sup> and their construction methods". Furthermore, "*The Archaeology of the Daijosai*" <sup>127</sup> was published, which also discussed archaeological findings.

## **5.** Ancient Period

The year 2022 marked the 70th anniversary of the special designation of Heijō Palace and the Nara National Research Institute for Cultural Properties, and a commemorative collection of essays was published. It also marked the 100th anniversary of the designation of Kokubunji Temple and other historical sites, and commemorative events and symposiums were held. Many essays were published in connection with these events.

#### **Castle Towns**

The 70th anniversary of the Nara National Research Institute for Cultural Properties 128, "Advances in the Study of Cultural Properties V" 129 was published. The papers in the collection cover a wide variety of themes related to cultural properties from the Paleolithic to the Modern Period, but the majority of the papers are related to the Asuka Fujiwara Palace and the Heijō Palace. The papers are from a variety of perspectives, and this collection of papers represents a significant achievement in the study of castle towns. The "Archaeological Journal" 130 published a special issue on "Current Research on Fujiwara-kyō and Heijō-kyō which included a discussion of the results of recent research. In addition, the relationship between Heijō-kyō and the Jōri system was discussed at the conference of the 'Society for the Study of the Jori System and Ancient Cities' and in "The Study of the Jori System and Ancient Cities" 131. Other single publications include "The Ancient Palace Capital of Japan and the Chinese Capital City" <sup>132</sup>, "A Study of the Capital City

<sup>122</sup> 古墳出現期土器研究誌上

<sup>123 『</sup>牧の景観考古学 古墳時代初期馬匹生産とその周辺』

<sup>124</sup> 蔀屋北遺跡

<sup>&</sup>lt;sup>125</sup>「彫ってわかった石彫A型・B型直弧文の構図原理」

<sup>126</sup> 孤帯文·直孤紋

<sup>127 『</sup>大嘗祭の考古学』

<sup>128</sup> 奈良文化財研究所 70 周年記念論集

<sup>129 『</sup>文化財論叢 V』

<sup>130</sup> 考古学ジャーナル

<sup>131 『</sup>条里制・古代都市研究』

<sup>132 『</sup>日本古代宮都と中国都城』

Fujiwara-kyō"<sup>133</sup>, and "The Ancient Palace Capital and the Construction of Local Offices"<sup>134</sup>.

### **Provincial Government Offices**

"Searching for the Real Image of the Ancient National Government" 135 was published in Archaeology Quarterly Supplement 37136, which included many papers related to the history of literature and archaeology. The "Historic Site Izumo Provincial Government Site 11" 137 was published, reporting the results of the survey of the Izumo Provincial Government. In addition, the results of a study on the Dazaifu outer wall were also published. In eastern Japan, a meeting was held for the first time in three years to study the remains of ancient palisades and public offices, and a feature article was published on the restoration and maintenance of the south gate of the Tagajō Castle Ruins and other areas. In the paper, the actual age of the Tagajō II period, the similarities between the renovation of Tagajō and the Omi provincial government, etc. were discussed. Other papers include discussions and reports on cases from various regions.

# **Ancient Temples**

At the Kayanoki site<sup>138</sup> in Kyōto Prefecture, a pagoda platform was found, which attracted attention because of its relation to the Tachibana clan. The Miyoshi City Board of Education in Hiroshima Prefecture has published a summary report of the eight investigations of the Teramachi Abandoned Temple, which includes a related paper. Some of the papers include a discussion of the continuity of the temple from the Kofun period, which is noteworthy. A discussion of the relationship with the Kofun period was also published. In the Kantō region, there were many published studies on Kokubunji discussing civil engineering techniques, the period of construction, and the relationship between nunneries and monks' temples. Other topics discussed included the date of Onjō-ji's establishment, the layout plan of the Yamadadera temple complex, and the location of Takechi Daiji temple. In addition, the "Archaeology of Katsuragi" 139 and "Essays on Ancient Sagami

II<sup>\*</sup> <sup>140</sup> contain discussions on ancient temples. "Narabi Kokubun Monks' Temples and Nunneries: Kazusa Kokubunji" <sup>141</sup> was also published.

#### **Ancient Mountain Castles**

"Kikuchijō Castle and Ancient Society"<sup>142</sup> discussed the roads, villages, warehouses, and excavated Buddhist statues related to Kikuchijō Castle. Symposiums "Dazaifu Shiōin Temple: A Temple of the Idea of a Protectorate State Built in the 'Western Capital'" and "The Ancient Mountain Castle, Kikuchijō Castle from the Perspective of Ancient Technology" were held and the results were published.

With regards to settlements and residences of the Great Clans, The Nara National Research Institute for Cultural Properties published a report on the previous year's research meeting, "Structure and Transition of Ancient Settlements 2". In addition, "Structure and Transition of Ancient Settlements 3" was held, and a collection of materials was published. At the meeting, the structure of ancient settlements, their changes, and their relationship with government offices were analyzed and discussed. A special feature on ancient sites was published in the 'Rekishi Hyōron' (Historical Journal) 143, and there were also additional reports from archaeologists. Archaeological Association of Yamanashi Prefecture organized a special feature, "Ancient Kai Province: Houses and Villages of the Ancient Clan" in which ancient Kai comprehensively examined, including its literary history. In addition, "The Archaeology of Ancient Kai Province" 144 was published. In addition, articles on settlements and powerful clans were published in each region.

# Transportation, The Jōri System and Land Development

The "Historical Archaeology of Ancient Landscape Reconstruction" <sup>145</sup> was published, presenting the results of landscape reconstruction of the Nara Basin, including landforms, and official roads. In the Ikaruga region, the layout of palaces and residences based on roads was also examined. The Izumo Journal of Ancient History<sup>146</sup> published

<sup>133 『</sup>都城藤原京の研究』

<sup>134 『</sup>古代宮都と地方官衙の造営』

<sup>135 『</sup>古代国府の実像を探る』

<sup>136</sup>季刊考古学別冊 37

<sup>137 『</sup>史跡出雲国府跡 11』

<sup>138</sup> 栢ノ木遺跡

<sup>139 『</sup>葛城の考古学』

<sup>&</sup>lt;sup>140</sup>『論集古代相模Ⅱ』

<sup>141 『</sup>ならび建つ国分僧寺・尼寺 上総国分寺』

<sup>142 『</sup>鞠智城と古代社会』

<sup>143 『</sup>歴史評論』

<sup>144 『</sup>古代甲斐国の考古学』

<sup>145 『</sup>歴史考古学による古代景観の復元』

<sup>146 『</sup>出雲古代史研究』

a special feature titled "New Developments in Ancient Transportation around the San'in Region". A report on the survey of ancient roads in the Aoya Plain of Tottori Prefecture and its eastern hills revealed various characteristics of ancient roads. The "Journal of the Yamanashi Prefecture Archaeological Association" featured a special issue on the remains of a Jōri area in Kai Province.

#### **Written Records**

The book "Ink-inscribed Pottery and Writing Tiles: A Study of Excavated Writing Materials" <sup>147</sup> was published, which included a discussion of ink-inscription and line-engraving materials. In addition, "A Collection of Excavated Textual Materials Related to Ancient Tajima Province" <sup>148</sup> was published, and the character of ancient Tajima Province was discussed. In addition, the contents of wooden and ink-inscribed pottery were discussed.

# **Religion and Rituals**

A symposium was held to commemorate the Hamada Seiryō Prize lecture <sup>149</sup> by Hori Daisuke <sup>150</sup> of Bukkyo University, and a symposium titled "Considering the Convergence of Shintoism and Buddhism: Its Origins and Spread". The process of Buddhist integration and Shinto/Buddhist syncretism was also discussed in the area surrounding Ise Jingū Shrine. In 'Matsuri' research, "Ancient Matsuri [festivals] and the Gods" <sup>151</sup> was published and the transition of rituals was discussed. Various other issues were also discussed, including rituals of armor, the transformation of Okinoshima from ancient rituals to the medieval period, and Ritsuryō rituals.

# **International Exchange**

"The History of Interaction in the Ancient Japan Sea Rim Region" <sup>152</sup> was published, and aspects of the ancient period were discussed. In "A Study of the Unified Silla Pottery Style" <sup>153</sup>, the distribution trends and changes of Silla pottery excavated from the archipelago based on the Silla pottery chronology was clarified. In addition, the background of the Shiretoko excavated Jingo-Kaibō coins from the late Okhotsk Culture<sup>154</sup> was

147 『墨書土器と文字瓦―出土文字史料の研究―』

151 『まつりと神々の古代』

presented. There was also a discussion of the ditchholed moated pillar buildings, and the arrival of people as indicated by ink-inscribed pottery.

#### **Artifact Research**

In the study of earthenware groups, earthenware styles of the late antique period at the Tagajo site 155 and non-wheel-thrown earthenware of the Heian period were discussed. In the study of Sue ware, the interaction between makers, regional chronology, presentation of new materials, and analysis of engravings were discussed. The trends of Sue ware from the Kosai kiln were also discussed based on the results of scientific analysis. Other results include the identification of provenance utilizing X-ray fluorescence analysis. In the field of ceramics, there was a discussion on the formation process of Nara Sansai (Nara tricolored ware).

In roof tile research, the Society for Ancient Roof Tile Research held a symposium on "Roof Tiles from the Late Nara to Early Heian Periods"<sup>156</sup>, with presentations on roof tile groups from major temples. Other topics included an analysis of the kilns that supplied tiles to the Fujiwara Palace and the nature of these kilns. The tile production techniques of the kiln supplying roof tiles to the Kōriyama II Site's 157 government office, and a comparison with other kilns in the Tōhoku region were also discussed. Other topics included reports on the discovery of new roof tiles from the Fujiwara and Heijō-kyō capitals, research on the same type of roof tile, weight calculations, and production systems, reports on new tile kilns, and discussions of roof tiles from various regions.

In metal artifact research, a discussion based on novel analytical results was published on bronze artifacts: "A Study on the Provenance and Mining of Ancient Bronze Raw Materials Using High-Precision Isotope Ratio Analysis" Other publications include a discussion on Suo coins and a paper on molds.

In the field of iron manufacturing, "A Restorative Study of Ancient Iron Manufacturing Techniques" <sup>159</sup> was published, in which the differences in production and labor between boxtype and vertical ironmaking furnaces through iron

<sup>148 『</sup>古代但馬国関係出土文字資料集成』

<sup>149</sup> 濱田青陵賞受賞記念講演会とシンポジウム

<sup>150</sup> 堀大介氏

<sup>152 『</sup>古代環日本海地域の交流史』

<sup>153 『</sup>統一新羅土器様式の研究』

<sup>154</sup> オホーツク文化

<sup>155</sup> 多賀城跡

<sup>156 「</sup>奈良時代末期~平安時代初期の軒瓦」

<sup>157</sup> 郡山遺跡第Ⅱ官衙

<sup>&</sup>lt;sup>158</sup> 『高精度同位体比分析法を用いた古代青銅原料の産地と 採鉱に関する研究』

<sup>159 『</sup>古代製鉄技術の復元的研究』

manufacturing experiments, as well as the changes in ironmaking furnaces in the southern Tōhoku region were investigated.

In the study of wooden artifacts, "The Archaeology of Woodworking" <sup>160</sup> (Yuzankaku) was published, focusing on the development of techniques and the movements of craftsmen, with an emphasis on unprocessed products. In addition, "The Beginning of Wooden Artifacts: A Collection of Excavated Wooden Artifacts (Kyōto City Edition)" and "Archeology of Geta [traditional Japanese sandals]" <sup>161</sup> were also published. A discussion of textile tools excavated from the Fujiwara palace and capital was also published.

In the study of salt production, "Human History and Salt Production in the Japanese Archipelago" was published in a volume of Archaeology Quarterly, which included a discussion of ancient salt production in various regions. The salt manufacturing system in Wakasa Bay was also discussed.

"The Archaeology of Scales and Weights" 162 discussed scales and weights from the Yayoi period to the Medieval Period. In addition, an attempt was made to reconstruct ancient scales. Engraved grinding wheels and engraved paper scales were also discussed.

In addition, there is a growing interest in ancient foods, and several discussions were presented. In addition, there were also several works on the protection and utilization of cultural properties, with the inclusion of viewpoints of archaeological tourism.

# 6. Medieval Period

# **Castle Buildings**

A symposium, "Excavated Western Sengoku Period Mountain Castles" was held online at the Okayama meeting of the Archaeological Institute of Japan <sup>163</sup>. Reports were made on mountain castles, and various discussions were held. In commemoration of the 20th anniversary of the designation of the "Ōtomo Clan Site" <sup>164</sup> as a National Historic Site in Oita City, a symposium titled "Linking with History, Linking with the Future: Reviving the Ōtomo Residence" was held. In Tochigi City, the Nishikata Castle Ruins Symposium "What We Know So Far About the Nishikata Castle Ruins" was held to summarize the

results of the research to date, and a summary report is scheduled for publication in preparation for the site being designation as a historic site. In Shizuoka City, a symposium titled "A Close Look at Imagawa-date" was held. There were presentations on the life of the vassals, town buildings, the mansion, and excavated artifacts. Many castle and mansion sites, including national historic sites, have been excavated and investigated with the aim of improving them as historic sites, and many results have been accumulated. A number of books were published, including "Sengoku no Shiro to Ishigaki (Castles and Stone Walls in the Warring States Period)" 165 and "Sugiyama Shiro Mondai to Sengoku Shi Higashikuni Shirokaku" (Sugiyama Castle Issue and Eastern Japan Castle in the Warring States *Period*)<sup>166</sup>. The Sugiyama Castle issue is related to the users of castles, and, by extension, the methodology used to determine the chronology of castles, with future developments to be closely watched.

# **Urbanization / Urban Theory**

The Society for the Study of Medieval Archaeology in Eastern Japan published "Castle Towns in Eastern Japan during the Warring States Period: The Appearance of the City and Its People," which addressed various issues related to the city, including the existence of urban planning, town space, the hierarchical structure of castle towns, territory marking, and the role of temple complexes, based on the results of research.

# **Tombs & Burials**

An international symposium was held based on the results of the Grant-in-Aid for Scientific Research (A) "Reexamination of the Process of Formation of Japanese Technology and Culture in the Middle Ages in the Study of Stone Structures: From the Perspective of the History of East Asian Interaction". In addition to stone materials and their provenance, historical development, and case studies, there was participation from China and Korea in the form of substitute readings, and comparisons with Korea and China were also discussed. A symposium connected to the exhibition, "Ishinomaki in the Middle Ages as Told by Monuments: 30 Years after the 'History of Ishinomaki'" was held at the

<sup>160 『</sup>木工の考古学』

<sup>161 『</sup>下駄の考古学』

<sup>162 『</sup>秤と錘の考古学』

<sup>163</sup> 考古学研究会岡山例会でシンポジウム

<sup>164</sup> 大友氏遺跡

<sup>165 『</sup>戦国の城と石垣』

<sup>166 『</sup>杉山城問題と戦国期東国城郭』

Ishinomaki City Museum. The symposium was based on the results of the reorganization of the city's inscribed stone monuments, including those that were lost in the 2011 Tōhoku Earthquake and Tsunami. A debriefing session for the Grant-in-Aid for Scientific Research (C) "Basic Research on the Centripetal Characteristics of Medieval Temples from the Viewpoint of Stone Structures and Their Ability to Transmit Information" was held, with reports on various issues related to the Kōyasan chōishi-michi pilgrimage route. On the same day, the Kasama History Forum "Stone Pagodas Tell the Story of the Middle Ages: An Approach from Shishidoso-Iwama Kamigo" was also held. In addition, a wooden pagoda with gold leaf from an older period has been discovered in Niigata Prefecture, and its relationship to the stone pagoda is attracting attention.

In addition, a new technique called "Hikari Takuhon" and 3D data are beginning to be used in the study of stone pagodas. It is expected to become popular in the future.

#### **Artifact Research**

In the field of artifact research, the medieval roof tile "Eifukuji-style roof tile" has attracted attention and was featured in a special exhibition at the Kanagawa Prefectural Museum of History, and a medieval roof tile study group was held on the theme of "Establishment and Development of Eifukuji-style Roof Tiles". The distribution of Eifukuji-style roof tiles and roof tile groups of the same period were also discussed at the meeting.

In the study of earthenware and ceramics research, the Japan Society for the Study of Oriental Trade Ceramics held a meeting titled "Re-Sharing and Development of 'That Site'". Perspectives, methods, and issues in the analysis of trade ceramics and porcelain, as well as the results of important sites, were reconfirmed and verified. In addition, a new edition of "Outline of Medieval Pottery and Ceramics" <sup>168</sup> was published. It describes the pottery characteristics, earthenware, and ceramics of various regions.

In the area of production and distribution, the 'Archaeological Journal' published a special feature titled "Distribution of ceramics in Medieval Japan". Distribution between the Seto Inland Sea and the Kinai region, domestic pottery from the Tōhoku region, the distribution of ceramics along

the Sea of Japan coast, and Bocho-type earthenware were discussed. In addition, a study group on medieval earthenware was held on the theme of distribution under the title "The Inland Sea and the Open Sea in Late Medieval Japan". Osaka Bay, Hyogo-no-Tsu, eastern Shikoku, the Kii Peninsula on the southern coast, and the eastern coast of Kyūshū were discussed. The Sakai City Museum held a special exhibition, "People and Goods Come and Go in Medieval Sakai: Archaeology of Distribution," and a related symposium, "Distribution and Sakai in the Middle Ages," was held. The symposium included lectures on maritime transport, the early medieval period and Ryukyu trade.

## Miscellaneous

"Kanayamashū and Mining Technology in the Medieval Period" was published. The book is a collection of writings on mining by the late Hagihara Mitsuo 170. The Archaeology Quarterly Journal published a special feature, "Landscape and Archaeology of Eating and Drinking," which included essays on eating and drinking from ancient to modern times. Other topics discussed include underground mines and lacquerware from the Warring States period.

# 7. Early Modern Period

### **Castles and Castle Towns**

"Structure and Development of Oda/Toyotomi Castle Towns (2)" was published. The changes from the Toyotomi period to early modern castles were described in a comprehensive manner, and research results were presented on various issues such as production relations, stonewalls, and roof tile production.

The "Special Feature: Excavated Daimyo Residence" <sup>171</sup> was published in the 'Archaeological Journal' <sup>172</sup>. Under the title of "General Introduction: New Trends in the Study of Daimyo Residences", the study of daimyo residences, gardens, warehouses, etc. was examined, and the results of individual research projects were reported by the affiliated researchers.

Special research included "The Situation and Remains of Building Foundations after the Yasuhime Court Period" and "Changes in the Boundaries of the Hongo Residence (Shimoyashiki) of the Kaga Domain".

<sup>167「</sup>ひかり拓本」

<sup>168 『</sup>新版 概説中世の土器・陶磁器』

<sup>169 『</sup>金山衆と中世の鉱山技術』

<sup>170</sup> 萩原三雄

<sup>171 「</sup>特集 発掘された大名屋敷」

<sup>172</sup> 月刊考古学ジャーナル

# Villages and Lodgings

With regards to villages, "Yamabukicho Site IV" <sup>173</sup> examined the management of arable land and farming methods in a farming village near Edo (present-day Tokyo). In the site report "The Watanuki Harakita Site, Watanuki Hara Site, Watanuki Hara-mae Site, Watanuki Sandanwari Site, and Watanuki Kisorimachi Site" <sup>174</sup>, the landscape of Watanuki Village in the early modern period was restored by combining survey results, maps, and interviews.

With regards to lodgings, in the site report "Kurihashi-juku West Main Camp I" <sup>175</sup> the "Fukushima Shimo-cho/Yashishita Site" <sup>176</sup>, the "Shimonida-kaido Hime-kaido" Fukushimajuku, a back road of Nakasendo, and the "Shinmachi Tozaki Site 2" <sup>177</sup>, the Shinmachi Inn of Nakasendo were investigated and their results are reported.

## Doboku Gijutsu (Civil Engineering)

A special feature article, "Civil Engineering Archaeology in the Early Modern Period" was published in the "Archaeological Journal". Under the title of "General Discussion: Perspectives on Civil Engineering Technology in the Early Modern Period" the article discussed the construction of castles in the early modern period, the reclamation of lowlands related to the construction of Edo Castle, and the construction of levees with wooden gutters. In addition, "Historic Site Natural Monument Yashima IV" (Takamatsu City Board of Education) summarized the results of a survey of Yashima, the stone-producing area for the stone walls of the historic site Takamatsu Castle.

#### Horticulture

The Edo Ruins Research Group took up the theme "Horticulture in Edo" at its conference, and archaeological case studies were reported along with research presentations on documentary history and pictorial materials. At Koishikawa Botanical Garden<sup>180</sup>, a survey of the garden was conducted, and archaeological remains were detected.

#### **Excavated Artifacts**

Ceramic research continued to be active in FY2022. At the 32nd meeting of the Kansai Society for Early Modern Archaeology <sup>181</sup>, "Ceramic Production and Consumption in the 19th Century" was discussed, and an overview of excavated ceramics in the Kansai consumption areas was presented, revealing aspects of small regional kilns in western Japan. At the Tokyo meeting of the Society of Archaeological Studies, the aspects of the consumption areas were comprehensively discussed under the theme of "Possibilities for the Study of Early Modern Ceramics at Sites of Consumption Areas" <sup>182</sup>. The study meeting of the Japan Society for the Study of Trade Ceramics

In "Re-Sharing and Development of 'That Site': 40 Years of the Japan Society for the Study of Oriental Trade Ceramics" <sup>183</sup> there were presentations on "Trade Ceramics Excavated from Sakai Moat City Site (2): Focusing on the 'Nanban Trade' Period," and "Research on Trade Ceramics Excavated from Edo Sites.

Other presentations on ceramics from various regions included "An Archaeological Study of Early Modern Satsuma Ware", "A Restorative Study of the Kiln Space in the Early Modern Period: A Report on the Excavation of the Goto Ware Happongi Kiln Site<sup>184</sup> in 2022", "The Origin of Karatsu Ware: Exploring the Possibility of its Foundation in Tensho 20", "Early Modern Porcelain and Textiles: With Special Reference to Fuyo-te and Shozui," and "A Study of the Formation Process of Compra Bottles A Study on the Formative Study of Flask-shaped Wine Bottles and Compra Bottles<sup>185</sup>" and various other articles have been published.

In the area of iron production, there is "Modern Industrialization and Iron at the End of the Edo Period as Seen from Ruins: Japanese Traditional Technology and Western Modern Technology". In addition, "Report on the Survey to Confirm the Scope and Contents of the Hashino Blast Furnace Site" <sup>186</sup> was published for the Hashino Blast Furnace Site No. 2 Blast Furnace

<sup>173 『</sup>山吹町遺跡IV』

<sup>174 『</sup>綿貫原北遺跡・綿貫原遺跡・綿貫原前遺跡・綿貫三反 割遺跡・綿貫反町遺跡』

<sup>175 『</sup>栗橋宿西本陣跡 I 』

<sup>176 『</sup>福島下町・屋敷下遺跡』

<sup>177 『</sup>新町戸崎遺跡 2』

<sup>178 「</sup>近世の土木考古学」

<sup>179 『</sup>史跡天然記念物屋島IV』

<sup>180</sup> 小石川御薬園

<sup>181</sup> 関西近世考古学研究会第 32 回大会

<sup>182 『</sup>消費地遺跡における近世陶磁器研究の可能性』

<sup>183 『</sup>あの遺跡、再びの共有と展開―日本貿易陶磁研究会 40 年―』

<sup>184</sup> 八本木窯跡

<sup>185</sup> コンプラ瓶

<sup>186 『</sup>橋野高炉跡範囲内容確認調査報告書』

Area" was published, which is a National Historic Site.

In addition, there is a collection of stone artifacts excavated in Yamanashi Prefecture, including a large number of unexcavated examples of inkstone and inkstone products related to production activities. There is also a discussion of clay figurines.

## **Food and Drink**

Archaeology Quarterly 187 featured "Food, Drink, Landscape, and Archaeology" 188. Among this, "Sake Vessels of the Edo Period", "Wooden Tableware of Edo", "Kunimoto's Fish Eating in the Edo Residence: The Uniqueness of Fish-Eating Culture in the Site of Edo Daimyo Residence and Its Background" and "Carnivory and Medicine Eating in the Edo Site" were among the themes discussed. Other articles include "Analysis of the Maeda Residence Visit Records During the Genna & Kan'ei Eras" and "A Study of Teapots from the Late Edo Period Based on Excavated Materials: A Case Study of the Former Site of the Owari Domain's Edo Estate". In addition, "Salt and Food Culture in Edo from an Archaeological Perspective" was published in Archaeology Quarterly, which discusses salt production.

## **Tombs & Burials**

"Funerary System and Society of Early Modern Daimyo" 189 was published. In addition to a discussion of the tombs of feudal lords, the book includes a number of articles on the tomb systems of the Ryūkyū and Korean royal families and anthropological analysis. In "Stone Cultural Properties" 190, there were "Early Modern Grave Studies and Contemporary Society", "Recent Studies on Early Modern Grave Markers", and "Ancestral Rituals of the Daimyo: Rituals of the Ii, Okubo, and Yamaguchi Clans". Other articles include "Establishment of Behavioral Patterns of Samurai in the Edo Period as Seen in the Chronological Transition of MSMs", "Cremation in Early Modern Edo based on Cremated Human Remains" among others. Several excavations of cemetery sites were carried out. A representative example is "Shunchōji Temple Site Excavation

Report"<sup>191</sup>, a report on the Shunchōji Temple area in Tokyo. In addition, a survey of "Ancient Tombs of Kikai Island"<sup>192</sup> in Okinawa is being conducted by the National Research Institute of Science and Technology.

# Religion

"Christian Relics at the Ruins of Hiroshima Castle and Castle Town" Plaquettes, Medals, and Medallions as Instruments of Piety: Designation and Internationality of Christian Relics" and "Two White Porcelain Statues of the Kannon in Tsuruoka, Yamagata Prefecture" were all announced. In Kantō, a survey of mounds that appear to be related to roads was conducted. Buildings that appear to be related to Shugendō lodgings have also been discovered.

#### Conclusions

This document has summarized the trends in archaeological research in FY2022 by each archaeological period. Unfortunately, the author was unable to ascertain research trends in contemporary archaeology in 2022, so this section was omitted, the author apologizes for this. However, the Japanese Archaeological Association has called for the full preservation of the Takanawa embankment<sup>197</sup>, and has made its opinions public, and the Buried Cultural Properties Protection Committee has played a central role in working toward its preservation. However, historic site designation was limited to a partial relocation only. This is truly regrettable, and we would like to make efforts toward the preservation of the 5th and 6th districts in the future.

# **Translation Acknowledgement:**

This document was translated from the original Japanese text, 『2022 年度の日本考古学会 (日本考古学研究の動向)』by:

Dr. James Frances Loftus (Associate Professor, Institute of Science Tokyo)

<sup>187</sup> 季刊考古学

<sup>188「</sup>飲食の風景と考古学」

<sup>189 『</sup>近世大名の葬制と社会』

<sup>190 『</sup>石造文化財』

<sup>191 『</sup>俊朝寺寺域遺跡発掘調査報告書』

<sup>192 『</sup>喜界島の古墓』

<sup>&</sup>lt;sup>193</sup>「広島城跡及び城下町跡におけるキリシタン関連遺跡に ついて」

<sup>194 「</sup>信心具としてのプラケット・メダルそしてメダレット・ メダリオンキリシタン遺物の呼称と国際性」

<sup>195 「</sup>山形県鶴岡市の白磁観音像 2 体」

<sup>196</sup> 修験道宿坊

<sup>197</sup> 高輪築堤