

Overview: Japanese Archaeological Research Trends 2021¹

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The 2021 fiscal year³ became the year that Japanese archaeology, which had been forced to a standstill by the coronavirus pandemic, began to move towards the revitalization of research activities. Even under the difficult circumstances of a novel coronavirus infection that has yet to subside, there were many research meetings and academic conferences held remotely, new research presentations made and discussions conducted, and progress seen in research.

The Japanese Archaeological Association as well was able to hold its 2021 General Meeting at Senshu University, and its 2021 Autumn Meeting at Kanazawa University, through the efforts and cooperation of the respective executive committee for each event. There were many research presentations for each occasion, with exchanges of opinion conducted online.

The aim of this volume is to record in detail the trends in research for the 2021 fiscal year in each field of research and in each region,⁴ to confirm the current achievements of Japanese archaeology, and to share research issues for the future. What follows will introduce the situation of research for each period in turn.

1. Paleolithic period

Two symposia related to the start of the Upper Paleolithic period were held. One was a program of lectures titled “How was modern human culture in Asia

¹[*Trends in Japanese Archaeological Research, 2021*, is a partial translation of “Nihon kōkogaku kenkyū no dōkō” 日本考古学研究の動向, in *Nihon kōkogaku nenpō 74 (2021 nendoban)* 日本考古学年報 74(2021 年度版) (*Archaeologia Japonica 74 [2021 Fiscal Year Issue]*) (Nihon Kōkogaku Kyōkai, 2022), pp. 1–40. This essay appears on pp. 1–6, under the Japanese title “Sōsetsu” 総説. It was translated by Walter Edwards, and published by the Japanese Archaeological Association (Nihon Kōkogaku Kyōkai 日本考古学協会) online in 2023. To streamline the text, characters for Japanese names and terms, and bibliographic information have been placed in footnotes. When an English translation of the name of an organization or publication (or symposium, etc.) is supplied by the party responsible, this is used with minimum changes in capitalization etc. to conform to the style followed by *Trends in Japanese Archaeological Research*. Romanized names of individuals are given with the surname followed by the personal name.]

² 辻 秀人

³ The fiscal year begins on April 1 of each calendar year.

⁴ [Translator’s note: The reference to “this volume” denotes the yearbook, *Nihon kōkogaku nenpō 74*, of which the current item is the introduction, followed by sections summarizing research trends by archaeological period, and then by prefecture.]

formed?,”⁵ which summarized results from the long-term project, “Cultural history of PaleoAsia.” In the lectures, models related to technological changes in the transitional period and the territorial expansion of modern humans in Asia and so forth were presented. The other was the Iwajuku Forum 2021,⁶ which took as its theme the appearance of blade tool assemblages in the Japanese archipelago. Comparisons of blade tool assemblages within the archipelago and internationally, the necessity of assessing the positions of assemblages, changes in their makeup, and so forth were discussed.

In addition, research was published that pursued human behavior through experimental methods. The possibility of the existence of the Early Paleolithic was also discussed.

Debate was exchanged on the period of transition from the end of the Upper Paleolithic to the Jōmon period.

At the symposium, titled “Nature and dynamics of the Upper Paleolithic hunter-gatherers in Hokkaido,”⁷ held at the annual meeting of the Japanese Palaeolithic Research Association, examinations were made of the emergence of microliths and of trends in microlithic technology and social groups in Hokkaido, and the possibility of a parallel existence with the Incipient phase of the Jōmon period was also discussed.

In addition, there was a reexamination of the bifacially worked stone tools recovered from the Mikoshiba⁸ site, and considerations of the composite tools from the Kosegasawa Cave⁹ site from the perspectives of function and the strategic utilization of stone material, and of assemblages of microlithic cores and so forth were made. Also, a monograph was published that comprehensively discusses the transition from the Paleolithic to the Jōmon periods.

In use-wear research, the results of research on the use-wear of microlithic assemblages has been systematically presented. Additionally, examinations of the technology of flaking microliths are being advanced. Further, concrete attempts at reconstructing the methods of making stone blades are being made.

In research on hunting gear, relationships between the cross-sectional morphology and functions of stone tools are being pursued, including through experimental research. As a new trend, future developments of this approach are

⁵ “Ajia no shinjin bunka wa dono yō ni keisei sareta ka?” アジアの新人文化はどのように形成されたか? (How was modern human culture in Asia formed?), lecture meeting sponsored by “Pareo Ajia bunka shigaku” パレオアジア文化史学 (Cultural history of PaleoAsia), a project funded under the Ministry of Education Grants-in-Aid for Scientific Research on Innovative Areas (held as a Zoom Webinar, 4 December 2021).

⁶ “Nihon rettō ni okeru sekijin sekkigun no shutsugen” 日本列島における石刃石器群の出現 (The appearance of blade tool assemblages in the Japanese Archipelago), Iwajuku Fōramu 2021 岩宿フォーラム 2021 (Iwajuku Forum 2021) (Iwajuku Museum, Midori, Gunma, 7 November 2021).

⁷ “Hokkaidō no kyūsekki jidai to shūdan” 北海道の旧石器時代と集団 (Nature and dynamics of the Upper Paleolithic hunter-gatherers in Hokkaido), symposium held at the Nihon Kyūsekki Gakkai Dai 19-kai Taikai 日本旧石器学会第 19 回大会 (19th Annual Meeting of the Japanese Palaeolithic Research Association) (held online by Zoom, 19–20 June 2021).

⁸ 神子柴 (Nagano prefecture)

⁹ 小瀬が沢洞窟 (Niigata prefecture)

receiving attention.

Research utilizing scientific analysis is being advanced.

As the source locations of stone tool materials are identified, based on those results there are discussions being held about intergroup exchanges and the social systems of hunter-gatherer groups, etc. At the same time, there are also opinions about the accuracy and reliability of source locality identifications, which will draw further consideration in the future.

In chronological dating, a new calibration curve has been published, and examinations are underway of its reliability and of the differences compared with prior versions. The compatibility with respect to archaeological findings is also being debated.

In regional research, a special collection titled “The development of Paleolithic research involving the Yakuraisanroku site group” was put together in the journal *Miyagi kōkōgaku*,¹⁰ and stone tool chronology, the utilization of stone material, use-wear analysis, behavioral analysis, and so forth, were carried out. Also, there were examinations of the microlithic assemblages and spearhead-shaped projectile points of the Sagamino plateau¹¹ and environs, of Kō-type knife assemblages of eastern Japan, of the earliest partially polished stone axes of the Tōkai region, and so forth. For archaeological features, pit-traps of the first half of the Paleolithic period, and stone heaps of the latter half of the period on the Musashino plateau,¹² were taken up.

Research methodology was also discussed. Whereas the creation of objective type classes and the application of numerical criteria for Pleistocene stone tool assemblages were advocated on the one hand, drawing upon European research results, doubts were also put forth. Finally, I would like to add that there was also discussion on how to identify the value of Paleolithic research as a viable academic system in the modern context.

2. Jōmon period

In Jōmon research, a trend toward elucidating Jōmon society from research on artifacts including Jōmon pottery is visible.

The journal *Kikan kōkōgaku* compiled a special collection of articles titled “The new Jomon society opened up by pottery research,”¹³ and in the midst of approaches to the makers of pottery and their social structure endeavored from typological research and manufacturing technology, there was debate on the dependence on marine resources.

¹⁰ “Yakuraisanroku isekigun o meguru kyūsekki kenkyū no tenkai” 薬菜山麓遺跡群をめぐる旧石器研究の展開 (The development of Paleolithic research involving the Yakuraisanroku site group), a collection of eight articles in *Miyagi kōkōgaku* 宮城考古学 (The Miyagi Archaeology), no. 23 (2021): 7-134.

¹¹ 相模野台地 (Kanagawa prefecture)

¹² 武蔵野台地 (Tokyo and Saitama prefectures)

¹³ Abe Yoshirō 阿部芳郎, ed., “Doki kenkyū ga hiraku aratana Jōmon shakai” 土器研究が拓く新たな縄文社会 (The new Jomon society opened up by pottery research), a collection of 13 articles in *Kikan kōkōgaku* 季刊考古学 (Archaeology Quarterly), no. 155 (2021): 5-92.

There was an abundance of research published on aspects of every phase of the period.

Regarding the time of emergence of pottery, radiocarbon dating of material adhering to linear relief pottery and stable isotope analysis have been carried out. For the Incipient phase, along with the relationship between dowel-impressed and *mumon*¹⁴ pottery, the relationships and trends of co-occurrence of pottery of different lines of derivation were discussed. For the Early phase, the origin of lacquer painting was examined from an analysis of its technology, and the importance was asserted of conducting scientific analysis in conjunction with typological examinations. Also, there was an examination made of a wide-area chronology for the latter half of the Early Jōmon period of Kyushu. Regarding the Middle phase, a research meeting on Sori-style pottery was held by the Yamanashi Prefecture Archaeological Association,¹⁵ and the diversity of Sori-style pottery and the social phenomena in the background were discussed. Also, studies were seen that took as their subject matter the co-occurrence of designs of different lines of derivation, and the interregional relations among pottery. For the Late phase, the Society of Archaeological Studies held its Tokyo Regional Meeting on the theme of “Interregional relations and society of the latter half of the Jōmon period Late phase seen from pottery,”¹⁶ in which examinations were made of changes in pottery assemblages of the Kantō and Tōhoku regions, and of trends in interregional relations and increasing social complexity. In addition, there was research on changes in aspects of pottery, analysis of lines of derivation for individual vessels, the mechanism and formation of wide-area spheres of pottery distributions, and so forth. Also, stable isotope analysis of Late phase pottery adhesions was conducted nationwide. Regarding the Final phase, the social background of the wide-area distribution was debated for Kamegaoka-style¹⁷ pottery, which has a high degree of uniformity. There was also discussion about the route by which the Kamegaoka-style pottery recovered from the Itoku¹⁸ site in Shikoku was brought from the outside. Additionally, examinations were made of the developmental process of designs of Angyō-style¹⁹ pottery, and of transitions of types of Late phase deep

¹⁴ [Translator’s note: 無文土器, *mumon doki* (literally, undecorated or “plain” pottery). There is growing recognition among Japanese archaeologists of the possibility that undecorated pottery found at the Ōdai Yamamoto I (大平山元 I, Aomori prefecture) site and elsewhere is the oldest ceramic stage in Japan. Despite being represented by the same Chinese characters when written in Japanese, this must be distinguished from the Mumun pottery of the Korean peninsula, chronologically much newer and associated with the spread of intensive agriculture.]

¹⁵ “Sorishiki doki to sono shūhen” 曾利式土器とその周辺 (Sori-style pottery and its environs), Yamanashi-ken Kōkōgaku Kyōkai 2021 Nendo Kenkyū Shūkai 山梨県考古学協会2021年度研究集会 (2021 Research Meeting, Yamanashi Prefecture Archaeological Association) (held online, 20–21 November 2021).

¹⁶ “Doki kara mita Jōmon jidai kōki kōhan no chiikikan kankei to shakai” 土器からみた縄文時代後期後半の地域間関係と社会 (Interregional relations and society of the latter half of the Jōmon period Late phase seen from pottery), Dai 54-kai Kōkōgaku Kenkyūkai Tōkyō Reikai 第54回考古学研究会東京例会 (Society of Archaeological Studies 54th Tokyo Regional Meeting) (held online, 7 July 2021).

¹⁷ 亀ヶ岡式

¹⁸ 居徳 (Kōchi prefecture)

¹⁹ 安行式

bowls of southern Shikoku.

For the utilization of pottery, research was published pointing out the differential use of deep bowls based on an analysis of isotopes of carbon and nitrogen from material adhering to the pottery, and accordingly asserting that the appearance of new vessel types suggests the diversification of the diet and of the manner of distributing food. At the same time, there were doubts indicated about the uncritical acceptance of the results of scientific analyses such as those involving carbon/nitrogen isotopes and residual lipids.

Regarding the making of salt using earthenware, the salt making for each period along the coast of Matsushima Bay²⁰ was examined, and it was pointed out that salt making was conducted over a long period using techniques dating back to the Jōmon period.

As baked clay objects, *dogū*²¹ (clay figurines) were mainly taken up. Along with the significance of *dogū* being questioned, there were advancements made in compilations and examinations of sites yielding multiple examples, etc. There were also endeavors at analysis with the silicone replica method and computerized tomography.

In stone tool research, an estimation of the relationships of exchange from a comparative examination of stone tool assemblages, suppositions about the composite utilization of plant materials from the morphological classification and usage marks of flaked stone axes, and of saddle querns and handstones, etc., and an inference about the system of distribution of commodities from actual examples of storage of polished stone axes, and so forth, were published. In addition, there were discussions on the classification of hand axes and the characteristics of chopping tools. Also, many articles on Gero stone²² were published in an issue of the journal *Tōkai sekki kenkyū* compiled in memory of Saito Motonari.²³

For stone-made objects, a consideration was made of slit-disc earrings, and the possibility of these items being handed down was pointed out. A nationwide examination was made of production sites for jade objects, and their regionality was indicated. Apart from this, a regional compilation and analysis of large jade beads was made. Also, the significance of the *oinezumi* type of stamp-shaped stone objects²⁴ was considered.

For objects made of bone, antler, teeth, tusks, and shell, a nationwide

²⁰ 松島湾 (Miyagi prefecture)

²¹ 土偶

²² 下呂石

²³ 齋藤基生; the articles appeared in issue no. 11 (2021) of *Tōkai sekki kenkyū* 東海石器研 (Tōkai Stone Tool Research)

²⁴ おいねずみ型石冠, also written 老いねずみ形石冠 [Translator's note: The term *sekkan* 石冠 (literally, "stone crown") is applied to a group of enigmatic stone-made items that are chronologically limited largely to the Late and Final phases of the Jōmon period, and described in English as "stamp-shaped stone objects," often with a knob-like handle and a flat or concave bottom. One variant, the object of the current discussion, presents as a humped shape that is humorously likened, as the name implies, to an "old rat."]

compilation was made of perforated shell bracelets made of limpet shells,²⁵ and the possibility that they were brought from the Izu Islands²⁶ was pointed out. There were also articles related to a deer antler carving in the shape of a frog, and to revolving detachable harpoon heads.

A symposium on the theme of “Construction of a theory of Jōmon society based on osteoarchaeology” was held by the Anthropological Society of Nippon.²⁷ Comprehensive examinations were carried out based on the results of analyses of chronology, vegetation, osteological traits, pathology, genome parsing, strontium isotopes, and so forth. Additionally, it was pointed out that the contributions of cultivation to the dietary habits in the latter part of the Final phase were limited, on the basis of radiocarbon dating and carbon and nitrogen isotope analysis. Also, a reexamination was conducted based on the results of various types of analysis with regard to a Late phase secondary burial of the type known as *shūsekibo*.²⁸ Further, a special collection titled “Paleopathology and archaeology” was compiled in the journal *Kōkogaku jānarū*.²⁹

In zooarchaeology, an anthology was published of works by Akira Matsui, who was the leading force in research in this field.³⁰ From an analysis of faunal remains unearthed from the Sannō-Gakoi³¹ site in Miyagi prefecture, which is located inland, deer and wild boar were the main targets for hunting, and the possibility that they were also taken as materials for bone and horn tools was indicated. It is presumed that some system of management existed regarding wild boars for the Noguni³² shell mound in Okinawa, and also that they were bred in captivity for a certain period of time at the Mukaidai³³ shell mound in Chiba prefecture. In addition, a systematic monograph on Jōmon people and dogs was published.

With regard to floral resources, a special collection was compiled in the journal *Shokuseishi kenkyū* on the theme of “Paleoenvironmental research regarding low wetland sites of the Kantō Plain.”³⁴ The management of forest resources, the beginning of plant cultivation, the formation of artificial ecosystems, and the

²⁵ Specifically, bracelets made from a type of limpet called *ōtsutanoha* オオツタノハ (*Patella optima*).

²⁶ 伊豆諸島 (Tokyo prefecture)

²⁷ “Kotsu kōkogaku ni yoru Jōmon shakairon no kōchiku” 骨考古学による縄文社会論の構築 (Construction of a theory of Jōmon society based on osteoarchaeology), symposium held in conjunction with the Dai 75-kai Nihon Jinrui Gakkai Taikai 第75回日本人類学会大会 (75th Meeting of the Anthropological Society of Nippon) (University of Tokyo, 10 October 2021).

²⁸ 集積墓 (also called *shūkotsubo* 集骨墓)

²⁹ “Kobyōrigaku kenkyū to kōkogaku” 古病理学研究と考古学 (Paleopathology and archaeology), a collection of five articles in *Kōkogaku jānarū* 考古学ジャーナル (The Archaeological Journal), no. 757 (2021): 3–23.

³⁰ Matsui Akira 松井章, *Dōbutsu kōkogakuron* 動物考古学論 (Zooarchaeology in Japan) (Shinsensha, 2021).

³¹ 山王圀

³² 野国

³³ 向台

³⁴ “Kantō heiya no teishitchi iseki ni okeru kokankyō kenkyū” 関東平野の低湿地遺跡における古環境研究 (Paleoenvironmental research regarding low wetland sites of the Kantō Plain), a special collection of two articles in *Shokuseishi kenkyū* 植生史研究 (Japanese Journal of Historical Botany), 30 (2022): 5–34.

composition of forests in the Jōmon period were examined. In addition, papers that examined changes in the use of plants in the Jōmon period, the management of floral resources, and related archaeological features were published. In the analysis of impressions of plant remains in pottery, examples of intentionally embedding soybeans were pointed out, and from an investigation of latent impressions in pottery from the end of the Final phase at the Etsuji³⁵ site, there is a report confirming the existence of foxtail millet, rice, and plants of the Lamiaceae (mint) family.

In site research, criticisms were raised with regard to opinions expressed in the report for the Akyū³⁶ site in Nagano prefecture. Also, a reexamination and clarification of the settlement transition was conducted for a group of features at the Hōshōjiri³⁷ site in Fukuoka prefecture, and a reconstruction was endeavored of the process of formation of the Hōryō³⁸ site in Akita prefecture.

In debate over features, an examination was made of indoor standing stones from the Chūbu highlands to the western Kantō region, and the process of emergence of circular stone features was pursued. Apart from this, a consideration was made of the composition of the group of features of the Ōyu³⁹ stone circles of Akita prefecture.

In research on Jōmon society, the social meaning and functions of rituals were discussed. In addition, the social organization of the Jōmon period, social changes from the Middle to the Late phases, and the status of influential people in Jōmon and Epi-Jōmon society were also examined.

3. Yayoi period

In chronology, radiocarbon dating values were reassessed following the release of the new calibration curve. In addition, as new measurements were published, the accuracy of the dated cases was also questioned.

Based on the current situation in which a certain direction has been obtained for the chronological framework of Yayoi period research, trends in Yayoi society were discussed. In particular, in tandem with the progress of paleoenvironmental research using oxygen isotope dendrochronology, the impact of environmental change on society was discussed in detail. Clarification of the relationship between the environment and society is an issue that applies to every period, and will likely become one that needs pursuing in conjunction with even more diverse factors in the future.

Regarding the spread of Yayoi culture, while the establishment of Ongagawa-style⁴⁰ earthenware and settlements in western Japan were discussed, in the Kanto region, changes in the environment, the acceptance of wet-rice agriculture,

³⁵ 江辻 (Fukuoka prefecture)

³⁶ 阿久

³⁷ 法正尻

³⁸ 堀量

³⁹ 大湯

⁴⁰ 遠賀川式

conditions of iron implements, and so forth were discussed. With regard to exchange, interactions between regions were considered based on lines of derivation of sarcophagi, and as it was pointed out on the one hand that the raw material for stone tools recovered from the Shimohieda⁴¹ site in Fukuoka prefecture was from Korea, while there was also an opinion that influence from the ancient Chinese state of Yan is visible in the practice of reutilizing pottery for spindle wheels, the field of view for relations of exchange broadened beyond the archipelago. For fishing gear, there were discussions that included relations between the areas of utilization of boats and the changes and regionality of clay and stone net weights, fishing hooks, and so forth.

In relation to the actual state of conflict and combat that arose within Yayoi society, there was an article that detected in changes of flaked stone arrowheads a momentous turning point toward the turmoil of the Late period, and another pointing out that an arrowhead recovered from an injured human skeleton had originated from a different settlement. A similar situation was shown for Epi-Jōmon culture as well. It was also pointed out that scars of injuries extend to women and children, and future investigations into the actualities of conflict are expected.

Highland settlements have been discussed as sites related to conflict in Yayoi society, but there has been a reexamination from new perspectives of their characteristics. Many points of view have been added, such as functions related to acquiring raw materials for the production of wooden implements, the possession of unique copper products, landscapes and viewsheds, and relationships with trends in regional society, and new images of highland settlements are in the process of being drawn.

In research on bronze implements, examinations were advanced of chronology and regional characteristics based on the discovery of clay tools for casting. In addition, there were discussions of the transformation of rituals involving bronze implements, and of the process of formation of Kinai bronze bells (*dōtaku*⁴²).

Regarding the raw materials for bronze implements, investigations and analyses have been made of lead isotope ratios. Among these, concrete understanding has been demonstrated regarding the results that show commonalities with items recovered from the Lelang Commandery.⁴³ There are other debates involving lead isotope ratios, and the consistency of understandings is still problematic. Comprehensive consideration will likely be required, including the issue of analytic accuracy.

For economic production, the specialization of craftsmen and the systems of production were discussed with respect to wooden and iron products. The movement of production workers was also under examination.

In pottery research, while detailed chronological studies were advanced regionally, there were also many papers published discussing exchanges and

⁴¹ 下稗田

⁴² 銅鐸

⁴³ 樂浪郡 (on the Korean Peninsula)

relations of influence based on commonalities between regions in the Late period.

New research methods are being tried in pottery research, such as using three-dimensional measurements and comparing them with scale drawings that are comprised of two-dimensional data. The effectiveness will surely be examined in the future.

In research on stone tools, the production technology for single-edged stone axes, changes in the lines of derivation of stone axes used for felling trees for lumber, and differences in the production sites and circulation of stone harvesting knives were discussed.

In research on beads, the systems of acquisition and circulation of jade, jasper, and green tuff were debated. In addition, the clay paste, the composition and circulation of the products, and so forth were examined for the glass *magatama* molds excavated from the Uedashi Kita II⁴⁴ site in Shizuoka prefecture. A diachronic study of jade and jasper was also published.

The ritual of offering smashed pottery in relation to the burial system was examined. In addition, compilations were made of basic materials related to the burial system in various regions.

4. Kofun period

In debate over the Kofun period as a whole, a view was published taking the span from the Late Yayoi into the Early Kofun period as an era of transition. From a broader perspective, there was also discussion dealing with the inner portion of the monarchy as well as influential regional groups and chieftains in the fifth and sixth centuries. Regarding periodization, actual conditions in the period referred to as the “Earliest Kofun” and so forth were discussed, along with its significance. In debates over state formation, the construction of monuments, prestige goods, and monetary economy, etc., were taken up, and comparisons made in terms of both global theories and diachronic perspectives on the form of the state. In addition, the characteristics of the Kofun period culture of Wakoku were discussed in terms of iron production and so forth.

Regarding warfare, the conditions and characteristics of war in the Japanese archipelago were debated, and concrete aspects of warfare and its relation with rituals discussed at a symposium held by the National Museum of Japanese History.⁴⁵

In research on tombs, the current status and issues regarding imperial tombs, including those designated as World Heritage, were reviewed, and the need was pointed out for public dissemination of information relevant to the problem. A new perspective was suggested regarding the significance of the base of keyhole-shaped

⁴⁴ 植出北Ⅱ

⁴⁵ “Sensō no randosukēpu to senshi shakai” 戦争のランドスケープと先史社会 (Landscape of warfare in prehistoric society), international symposium held by Kokuritsu Rekishi Minzoku Hakubutsukan 国立歴史民俗博物館 (National Museum of Japanese History) (National Museum of Japanese History and online by Zoom, 20 November 2021).

mounds, and discussion was presented finding significance in the shape of the mounds and particularly the relation of the level portion on the top of the mound with the three-dimensional form. Analyses were also made of construction methods of the mound. There was a treatise on mound orientation from the perspective of landscape history.

Regarding stone chambers, there was a study pointing out the existence of a confederacy of powerful clans as background to the adoption of horizontal stone chambers, and the proposal of an “Iki Island-style horizontal stone chamber” based on an examination of the Iki Tomb Group,⁴⁶ a nationally designated Historic Site. In addition, there were points made about the practices of crews of craftsmen who built stone chambers, and a study was published analyzing various lines of derivation of horizontal stone chambers.

In 2021, a variety of research was conducted on artifacts.

Concerning mirrors, a new interpretation was presented on mirrors excavated from the Shikinzan⁴⁷ tomb, and the background to the formation of the triangular-rimmed mirror was discussed. Concerning Early period domestic (imitation) mirrors, there was an investigation of Japanese-made mirrors made through an analysis of the originals that were imitated.

For stone-made objects, a perspective was presented taking the regional expansion of the circulation of material goods and the formation of common economic spheres as background factors to their distribution. There was also a deepening of research on individual items among soft stone imitative articles. For wooden products, the relationship between earthworking tools and the targets for development was discussed. With regard to tools for production, changes in the decorations and blades of point planes were sorted out, and for fishing gear, the regional characteristics of fish hooks and harpoons made of bone and antler were discussed.

As for bodily ornaments, the history of Japanese–Korean exchange, and modes for workshops and products, etc., were depicted as seen through the variety of personal accessories. Also, the image of the occupant of the Eta Funayama⁴⁸ tomb was discussed from a comparison of the gilt-bronze crown excavated from the mound with items of Baekje manufacture. The realities of multi-faceted interactions with Silla were also discussed based on the recoveries of Silla-style gold earrings with pendants. In addition, studies were published that examined the processing and technique of decorating gilt-bronze fish-shaped waist ornaments, and the appearance and lines of derivation of horizontal combs.

A comprehensive anthology on horses and ancient society was published, in which materials related to the initial phase of equestrian culture were compiled and examined. In addition, the current state of research on the distribution and supply of equestrian gear was summarized. In weapons research there were many studies

⁴⁶ 壱岐古墳群 (Nagasaki prefecture)

⁴⁷ 紫金山 (Osaka prefecture)

⁴⁸ 江田船山 (Kagoshima prefecture)

taking up decorated swords. These include topics such as the inscription on an iron sword of the characters 中平,⁴⁹ and the reconstruction of a bulbous-pommeled sword from the Miyajidake tomb.⁵⁰ Also, there was a new proposal for the production system of swords with slanting pommels called *keitō*.⁵¹ In addition, there were studies published on swords decorated with *miwadama*,⁵² on craftsmen of Japanese-made ring-pommeled swords, the use of iron arrowheads, and the cuirass excavated from the Inadō⁵³ No. 15 tomb. For armor, discussions were held on trends in immigrant craftsman groups based on the production system of quivers, and on the manner of wearing helmets and changes in their form. In addition, the view was expressed that the meaning of placing armor in burials was politically symbolic.

In research on Haji⁵⁴ ware, in addition to the items named for their resemblance to a “handwarmer”⁵⁵ being taken up, the actualities of interregional exchange were clarified. The relationship of earthenware and rice cooking methods was discussed. In addition, in a research meeting of the Chūgoku Shikoku Keyhole Tomb Research Society there was much discussion about Haji and Sue ware in the Middle Kofun period.⁵⁶ The sequences and transitions for double-rimmed jars were also discussed.

For Sueki, the production of Sueki using the *rindai*⁵⁷ technique and its application to *haniwa*⁵⁸ production were discussed. In addition, the establishment and development of the Higashiyama⁵⁹ kiln and its relationship with the Suemura⁶⁰ kiln were examined. From the study of steaming vessels (*koshiki*⁶¹), the process of the establishment of Sueki production in the Japanese archipelago was described.

In *haniwa* research, the division of labor among lineages in the Kinai region was described, and there was also a discussion of the clans involved in production. For human figurines, the nature of scenes in which someone is kneeling was discussed.

⁴⁹ [Translator’s note: The reference is to a sword excavated from a fourth-century keyhole tomb, Tōdaijiyama 東大寺山, in Nara prefecture, bearing a 24-character inscription that includes the sequence 中平. This has been interpreted, though not without controversy, as indicating the Chinese era name Zhongping (184–189).]

⁵⁰ 宮地嶽 (Fukuoka prefecture)

⁵¹ 圭頭

⁵² 三輪玉 (a gem shaped as three bulges in a row)

⁵³ 稻童 (Fukuoka prefecture)

⁵⁴ 土師

⁵⁵ *teaburigata doki* 手焙り形土器

⁵⁶ “Chūki kofun kenkyū no genjō to kadai 5: Kofun jidai chūki no Hajiki/Sueki o megutte” 中期古墳研究の現状と課題 5: 古墳時代中期の土師器・須恵器をめぐって (Current state and issues in Middle Kofun research 5: Concerning Haji and Sue ware of the Middle Kofun period), Dai 24-kai Chūgoku Shikoku Zenpōkōenfun Kenkyūkai Kenkyū Shūkai 第 24 回中国四国前方後円墳研究会研究集会 (24th Research Meeting, Chūgoku Shikoku Keyhole Tomb Research Society) (held online, 27–28 November 2021).

⁵⁷ 輪台 [Translator’s note: This is another term for the Tannowa technique, described in a previous translation of *Trends in Archaeological Research* (“Kofun Period: Research Trends 2007,” note 100). The purpose of building the vessel up from a ring (of vines, etc.) placed on the wheel or stand was ostensibly to help prevent deformation when moving it to a separate location for drying.]

⁵⁸ 埴輪

⁵⁹ 東山 (Aichi prefecture)

⁶⁰ 陶邑 (Osaka prefecture)

⁶¹ 甑

A reexamination was also conducted of rows of cylindrical *haniwa* as a means for blocking the view. In addition, an attempt was made to interpret various relationships between chiefs as background for the coexistence of *haniwa* from different lineages at the same burial mound. Regarding production and supply, differences in supply trends depending on the lineage of *haniwa* kilns were pointed out. A study was also published interpreting the prevalence of *haniwa* depicting military figures and government officials in the eastern provinces as attempts to boast the local leaders' achievements in external activities. In addition, commentaries and general treatises related to *haniwa* were also published.

In settlement research, the Society for the Ancient Studies of Japan published an anthology that considers social changes based on trends for settlement sites from the Kofun to Asuka periods.⁶² Among individual studies, there was an article linking buildings with verandas on all four sides to chiefly authority, and another looking at the nature of shed-roofed structures as related to rituals and mourning. The transition from the Kofun to the Ancient periods in terms of the measuring scale related to architectural features was examined. A reexamination of the concept of the patriarchal household as collective unit was presented.

With regard to funerary rites, mourning huts (*mogariya*⁶³) within the settlement were explored, and changes in mortuary ceremonies for each period were also thoroughly discussed. Concerning tombs, it was pointed out that secondary burial conditions, in which skeletons interred in horizontal stone chambers were not in their original positions, are notable for eastern Japan.

Regarding production, a record of the Society of Archaeological Studies Tōkai Regional Meeting was published, with the results of work sorting out the development of various handicrafts, centering on blacksmithing and the technology of kiln operations. In addition, articles were published that examined various handicrafts related to horses, salt, pottery, and so forth. The relationship between the spread of the breeding and use of horses with related aspects of transportation was examined.

In research on regional society, an attempt was made to reconstruct regional society based on the newest information stemming from the results of field surveys of tombs. There was also an attempt to explore the background to the adoption of keyhole-shaped mounds. An effort to examine the extension of regional control on the part of the Wa monarchy from the perspective of developing water resources was also published. Many books depicting regional images of the Kofun period were published as well. There was also an attempt to interpret burial mounds using a model from Britain. In addition, there was discussion on the relationship between tombs and transportation routes, including debate on the relationship of

⁶² Kodaigaku kenkyūkai 古代学研究会 (Society for the Ancient Studies of Japan), ed., *Kofun jidai kara Asuka jidai e: Shūroku iseki no bunseki kara mita shakai henka* 古墳時代から飛鳥時代へ: 集落遺跡の分析からみた社会変化 (From the Kofun to Asuka periods: Social change seen from the analysis of settlement sites), (Rokuichi Shobō, 2021).

⁶³ 殯屋

transportation routes with the earliest horizontal stone stone chambers, and with political ties.

For immigrants and immigrant culture, research was published that examined horses and related materials, and found differences in their aspects in each region. In addition, a view was expressed about the presence of immigrants who came via the Kinki region. There was also a study of steaming vessels derived from the Korean Peninsula that were excavated in the Kantō region.

Regarding international exchange, an encyclopedia summarizing the results of research to date has been published. An article was published asserting that the rulers of various parts of the archipelago conducted diplomacy independently with the Asian continent apart from the state-level diplomacy of Wa. In addition, the view was expressed that in the fifth century diplomacy with Silla, the eastern portion of Izumo would have been the point of contact on the Sea of Japan for negotiations. At the same time, there was an analysis that the nature of negotiations with the peninsula changed before and after the Iwai Rebellion.⁶⁴

The journal *Kōkogaku jānarū* compiled a collection on “Gender and archeology”⁶⁵ with the aim of writing ancient history from a new perspective. It included discussion of the leadership role of female chieftains. Also, the nature of the kinship group at the Isoma Rock Shelter Site⁶⁶ is discussed based on identifications of gender and consanguineal relations through DNA analysis.

Three-dimensional measurement has spread rapidly in recent years, along with an increase in related research results. The efficacy of three-dimensional measurement was discussed based on practical examples of advances in research on armor, horizontal stone chambers, and defects in molds for producing identical types of mirrors.

In human skeletal research, strontium isotope ratio analysis has been used to discuss the personal histories of individuals closely related to horse breeding groups. In addition, the results of DNA analysis, carbon and nitrogen isotope ratio studies, C14 dating, and so forth have accumulated.

5. Ancient period

In research on Ancient capitals, studies were advanced on the palace and capital city of each period. A meeting of the Society for Research on the Capital City System⁶⁷ saw reexaminations of the structure and process of construction of the Fujiwara Palace Imperial Audience Hall, and of the structure and transitions of the Asuka Capital Site Garden Pond.⁶⁸ For the Nara palace,⁶⁹ there was discussion on

⁶⁴ 磐井の乱 (quelled in 528)

⁶⁵ “Jendā to kōkogaku” ジェンダーと考古学 (Gender and archaeology), a collection of five articles in *Kōkogaku jānarū*, no. 762 (2021): 3–22.

⁶⁶ Isoma iwakage iseki 磯間岩陰遺跡 (Wakayama prefecture; a nationally designated Historic Site)

⁶⁷ Tojōsei Kenkyūkai 都城制研究会

⁶⁸ Asukakyōato Enchi 飛鳥京跡苑池 (nationally designated as both a Historic Site and a Place of Scenic Beauty)

⁶⁹ 平城宮 (Nara prefecture)

the remains of kitchen-related features in the East Palace⁷⁰ sector, on the transition and significance of the Daijōkyū,⁷¹ and the actual condition and significance of the Outer Capital.⁷² At the Naniwa⁷³ palace, a study of the construction process of the Former Naniwa palace was made on the basis of a comparison with the Asuka palace. The character of Front Hall of the Dairi⁷⁴ at the Naniwa palace in the reign of Emperor Shōmu⁷⁵ was discussed. The *Jōri* Field System/Ancient Urban Research Society⁷⁶ examined the urban structure of the Heian⁷⁷ capital in the early Heian period, and the results were summarized in its journal.⁷⁸ In addition, a special collection titled “The archaeological excavation of Japanese ancient capital, Heian-kyo” was compiled in the journal *Kōkogaku jōnanu*.⁷⁹ Among the contents, the structure of the Heian capital, the city wall, the remains of mansions, and so forth were examined.

Although the annual research meeting of the Ancient Fortified Government Office Sites Study Group was canceled, the materials for the meeting on the theme of glazed stoneware recovered from fortified government office sites were published.⁸⁰ In addition to a general treatment of the topic, the contents included examinations of the Tagajō⁸¹ and Isawa⁸² Castle sites, and of the southern portions of the Ancient provinces of Michinoku⁸³ and Dewa.⁸⁴ In relation to the Tagajō Castle site, there were studies of the Tagajō Stele⁸⁵ and an analysis of links between the founding of Tagajō and Dazaifu.⁸⁶ Apart from this, there were reports of newly identified fortified government office sites. Also, a comprehensive anthology on fortified government office sites was published.

Regarding hill forts of the Ancient period, the Kumamoto Prefectural Board of Education published a portion of the results of a special research project on the site

⁷⁰ Tōin 東院

⁷¹ 大嘗宮 (a temporary sanctuary hall built on the palace grounds where the emperor conducts the first ceremony after enthronement to offer newly harvested rice and give thanks to the imperial ancestors and the deities)

⁷² Gaikyō 外京 (the eastern extension of the Nara capital)

⁷³ 難波 (Osaka prefecture)

⁷⁴ Dairi zenden 内裏前殿

⁷⁵ 聖武 (r. 724–749)

⁷⁶ Jōrisei/Kodai Toshi Kenkyūkai 条里制・古代都市研究会

⁷⁷ 平安 (Kyoto prefecture)

⁷⁸ *Jōrisei/Kodai Toshi Kenkyū* 条里制・古代都市研究 (Annals of the Association for Ancient Rural and Urban Studies), no. 37 (2021).

⁷⁹ “Heiankyōato chōsa no seika” 平安京跡調査の成果 (The archaeological excavation of Japanese ancient capital, Heian-kyo), a collection of five articles in *Kōkogaku jōnanu*, no. 761 (2021): 3–21.

⁸⁰ Kodai Jōsaku Kanga Iseki Kentōkai 古代城柵官衙遺跡検討会 (Ancient Fortified Government Office Sites Study Group), *Kodai Jōsaku Kanga Iseki Kentōkai: Shiryōshū Dai 48-kai* 古代城柵官衙遺跡検討会: 資料集 第48回 (Materials of the 48th Meeting, Ancient Fortified Government Office Sites Study Group) (Executive Committee for the 48th Meeting, 2022).

⁸¹ 多賀城 (Miyagi prefecture)

⁸² 胆沢 (Iwate prefecture)

⁸³ 陸奥 (modern Fukushima, Miyagi, Iwate, Aomori prefectures, and a portion of Akita prefecture)

⁸⁴ 出羽 (modern Yamagata and Akita prefectures)

⁸⁵ 多賀城碑 Tagajō Stele

⁸⁶ 太宰府 (Fukuoka prefecture)

of Kikuchi⁸⁷ Castle, including research on the relationship between regional society and horse breeding, and a comparison of the water procurement facilities with ancient hill forts of the Korean Peninsula.

The journal *Kikan kōkōgaku* compiled a special collection on the theme of rock-carved Buddhas and stone pagodas surviving at Ancient period mountain temples.⁸⁸ The variety of cliff-face carved stone Buddhas and stone monuments in every region was discussed from the perspective of elements that make up temples. In research on sacred mountain sites, presentations were made and a symposium held by the Kyushu Sacred Mountain Site Study Group. The results can be seen in a publication of the materials.⁸⁹

For transportation, the actual condition and functions of the Shimotsumichi,⁹⁰ a main road of the Nara basin, were examined. Also, the nature of the Taburegokoro no mizo,⁹¹ a canal of the period of Empress Saimei,⁹² was approached through a reconstruction of its scale and route. In addition, the significance of ancient roads was discussed comprehensively in conjunction with other facilities of the Ancient state.

In research on temples, a comprehensive treatment on ancient nunneries (Grant-in-Aid for Scientific Research report) was published,⁹³ and as a portion of the results of that research, a study was produced of the roof tiles excavated from Chūgūji⁹⁴ temple. There were also multiple publications of research comprehensively discussing the development of Buddhist temples.

In roof tile research, a symposium on the theme of ornamental ridge-end tiles (*shibi*⁹⁵ and *onigawara*⁹⁶) and was held by the Nara National Research Institute for Cultural Properties Ancient Tile Research Group, and detailed reports were made on the situation at various places.⁹⁷ Also, a record of the previous symposium was

⁸⁷ 鞠智

⁸⁸ Sagawa Shin'ichi 狭川真一, ed., "Yamadera to sekizōbutsu kara mita kodai" 山寺と石造物からみた古代 (The Ancient period seen from mountain temples and stone monuments), a collection of 22 articles in *Kikan kōkōgaku*, no. 156 (2021): 14-93.

⁸⁹ *Hōmanzan no kodai sangaku shinkō* 宝満山の古代山岳信仰 (The Ancient mountain worship of Mount Hōman), materials from the Dai 11-kai Kyūshū Sangaku Reijō Iseki Kenkyūkai 第 11 回九州山岳霊場遺跡研究会 (11th Meeting, Kyushu Sacred Mountain Site Study Group) (held at Dazaifu Tenmangū Shrine, Fukuoka, 31 October 2021).

⁹⁰ 下ツ道

⁹¹ 狂心渠

⁹² 齊明 (r. 655-661)

⁹³ Shimizu Akihiro 清水昭博, *Nihon kodai amadera no kōkōgakuteki kenkyū* 日本古代尼寺の考古学的研究 (Archaeological investigations of Buddhist nunneries in Early Japan), MEXT Grant-in-Aid for Scientific Research report (project number 17K03221) (Tezukayama University, 2022).

⁹⁴ 中宮寺 (Nara prefecture)

⁹⁵ 鷗尾

⁹⁶ 鬼瓦

⁹⁷ "Shibi/onigawara no tenkai 2: Onigawara" 鷗尾・鬼瓦の展開 II: 鬼瓦 (The development of *shibi* and *onigawara* 2: *Onigawara*), Nara Bunkazai Kenkyūjo Kodaigawara Kenkyūkai Dai 21-kai Shinpojiumu 奈良文化財研究所古代瓦研究会第 21 回シンポジウム (Nara National Research Institute for Cultural Properties Ancient Roof Tiles Research Group 21st Symposium) (held online, 5 February 2022).

published.⁹⁸ Apart from this, the production of roof tiles around the Ōmi Ōtsu⁹⁹ palace, flat eaves tiles with a modified palmette scroll pattern, roof tiles excavated from the southern portion of Shiga prefecture, tiles of Heijō palace derivation that were excavated from the Tsubakiichi¹⁰⁰ abandoned temple site, round eaves tiles with an early simple-lotus petal design excavated from Dazaifu, tile production technology at the Michinoku provincial headquarters, and so forth were discussed. Additionally, a compilation of Ancient period tiles from the province of Harima¹⁰¹ was published.

In site investigations, confirmation of the site of the pagoda at the Idedera¹⁰² site was reported. Also, at the Sugahara¹⁰³ site in Nara Prefecture, a circular building surrounded by a cloister and possibly a roofed earthen wall was discovered. It is said to have been set up in the middle portion of the eighth century, and to have survived until the beginning of the ninth. Its character is currently being debated. In addition, there were reconsiderations of temple layouts, including the pagoda remains at the Takei abandoned temple,¹⁰⁴ and the main hall of Shitennōji¹⁰⁵ temple at Akita castle.

For published works, an anthology dealing with Prince Shōtoku¹⁰⁶ and Shitennōji temple (in Osaka) was published, containing articles from many fields including archeology, history, art, and architecture. In addition, the annual report *Tofurō* published a special collection marking the 100 years since the designation as a Historic Site of the Chikuzen provincial monastery and tile kiln.¹⁰⁷ Also, monographs were published with the Nara period temples of Daianji,¹⁰⁸ Hōryūji,¹⁰⁹ and Tōdaiji¹¹⁰ as theme.

Regarding research on burial mounds, the procurement of shells in relation to the interment of cinerary urns following cremation was examined. In addition, concerning burials of cremated remains, an analysis of conditions within a particular site, and a compilation of materials within a region, were carried out.

In settlement research, there was a publication from the Ancient Government

⁹⁸ *Shibi/onigawara no tenkai 1: Shibi 鷗尾・鬼瓦の展開 I: 鷗尾* (The development of *shibi* and *onigawara* 1: *Shibi*), a record of the Nara Bunkazai Kenkyūjo Kodaigawara Kenkyūkai Dai 20-kai Shinpojiumu 奈良文化財研究所古代瓦研究会第20回シンポジウム (Nara National Research Institute for Cultural Properties Ancient Roof Tiles Research Group 20th Symposium) (held at Nara National Research Institute for Cultural Properties, 1–2 February 2020).

⁹⁹ 近江大津 (Shiga prefecture)

¹⁰⁰ 椿市 (Fukuoka prefecture)

¹⁰¹ 播磨 (Hyōgo prefecture)

¹⁰² 井手寺 (Kyoto prefecture)

¹⁰³ 菅原 (Nara prefecture)

¹⁰⁴ 武井麿寺 (Gunma prefecture)

¹⁰⁵ 四天王寺 (Akita prefecture)

¹⁰⁶ 聖徳

¹⁰⁷ “Chikuzen kokubunji ato/kokubun gayō ato: Shiseki shitei 100 nen” 筑前国分寺跡・国分瓦窯跡: 史跡指定100年 (Chikuzen Kokubunji Site/Kokubu Tile Kiln Site: 100 years as a nationally designated Historic Site), a special collection in *Tofurō* 都府楼 (Tofurō), no. 53 (2022).

¹⁰⁸ 大安寺 (Nara prefecture)

¹⁰⁹ 法隆寺 (Nara prefecture)

¹¹⁰ 東大寺 (Nara prefecture)

Offices/Settlements Research Society on the structure and transitions of Ancient period settlements,¹¹¹ which included analyses of the types of settlements, changes in settlement structure within regions, and changes in settlement structure at archaeological sites.

In relation to the production of metal objects, the seventh and eighth century coin minting agencies were examined. Also, there were discussions of archaeological features related to metal casting, iron working, and so forth.

For studies of ceramics, the production and distribution of Sue ware, and of glazed stoneware of the Ancient provinces of Owari¹¹² and Mino¹¹³ were examined. There was also a study of the significance of a Tang *sancai* glazed ceramic pillow recovered from the Dewa provincial headquarters. In addition, articles were published on the mode of production of green glazed ceramics and the form of operation of Ancient Sue ware manufacture.

Against the background of recent disasters and the spread of the coronavirus infection, disasters and epidemics of the Ancient period were taken up. A study was published homing in on the actualities of the Jōgan¹¹⁴ tsunami through detailed examination of the deposited strata. In addition, concrete images were shown of social unrest stemming from epidemics, including smallpox at the Nara capital.

In addition to the above research, a special collection on wooden tablets was compiled in *Kōkogaku jānaru*.¹¹⁵ Also, an anthology titled *Horses and Ancient society*¹¹⁶ was compiled, in which articles from various perspectives were published. Other topics taken up include the ancient diet, analysis of charred food remains, and food spoilage due to flies.

6. Medieval period

Many excavations were conducted relating to urban and settlement research. These include investigations of Heian–Kamakura period timber-framed wells built in hexagonal pits, settlements composed of embedded-pillar buildings, and settlements inferred to have been where influential people lived. There were also many other sites for which the nature was inferred from the recovered artifacts, such as the Tarumi Hyūga¹¹⁷ site presumed to be related to a Tōdaiji manor from the excavation

¹¹¹ Nara Bunkazai Kenkyūjo 奈良文化財研究所 (Nara National Research Institute for Cultural Properties) ed., *Kodai shūroku no kōzō to henshen 1 古代集落の構造と変遷 1* (Structure and transitions of Ancient settlements), report from the Dai 24-kai Kodai Kanga/Shūroku Kenkyūkai 第24回古代官衙・集落研究集会 (24th Research Meeting of the Ancient Government Offices/Settlements Research Society) (Nara Bunkazai Kenkyūjo, 12 December 2020).

¹¹² 尾張 (Aichi prefecture)

¹¹³ 美濃 (Gifu prefecture)

¹¹⁴ 貞観 [Translator's note: The tsunami was caused by an earthquake occurring in the fifth month of the year Jōgan 11 (869), with the epicenter inferred to have been off the Pacific coast of the Tōhoku region, and the magnitude estimated as at least M8.4.]

¹¹⁵ “Nana seiki mokkan” 7世紀木簡 (The 7th century wooden tablets), a collection of five articles in *Kōkogaku jānaru*, no. 759 (2021): 3–21.

¹¹⁶ Sasaki Ken'ichi 佐々木虔一, Kawajiri Akio 川尻秋生, Kurozumi Kazuhiko 黒濟和彦, eds., *Uma to kodai shakai 馬と古代社会* (Horses and Ancient society) (Yagi Shoten, 2021).

¹¹⁷ 垂水日向 (Hyōgo prefecture)

of large-scale embedded-pillar buildings and a large-scale well, and a large amount of small biscuit ware dishes. In addition, there were examples as well of investigations at production-related sites for which it was pointed out that Muromachi to Edo period rice paddy remains and fifteenth–sixteenth century blacksmithing-related features matched with historical records. In publications, there was a monograph examining the medieval city of Nara, and an article presenting regionally based research on banquets.

For mansions and castles, many sites were investigated such as the nationally designated Historic Sites of Jōjujitate Castle¹¹⁸ and Hiyama Castle.¹¹⁹ In addition, at the Former Matsunami Castle Garden,¹²⁰ a nationally designated Place of Scenic Beauty, and at the National Historic Site Makabe Castle,¹²¹ and elsewhere, many garden features were investigated. As publications, the realm of Shimotsuke province in the Sengoku and initial Early Modern periods,¹²² and religious beliefs in relation to fortified residences of the Medieval eastern provinces¹²³ were taken up in monographs. In addition, an anthology titled *Castle Research and Archeology* was compiled, and a variety of research results were presented.¹²⁴ Also, a symposium focused on the Asakura clan hillfort,¹²⁵ and a symposium commemorating the 80th anniversary of the Ne Castle's designation as a Historical Site¹²⁶ were held.

There were many excavations carried out related to the burial system and religion. Attracting attention among these were the Tsumagitaira site,¹²⁷ which is presumed to be a ritual space of the Kamakura period, the Tsujimachi site,¹²⁸ where many medieval graves were discovered, and a natural cave site in Okinawa which yielded human skeletal remains with noteworthy characteristics from the Gusuku period.

Regarding production and distribution, a large-scale stone piling from the eleventh to twelfth centuries was discovered at the Hakata¹²⁹ site group, together

¹¹⁸ 聖寿寺館 (Aomori prefecture)

¹¹⁹ 檜山城 (Akita prefecture)

¹²⁰ 旧松波城庭園 (Ishikawa prefecture)

¹²¹ 真壁城 (Ibaraki prefecture)

¹²² Arakawa Yoshio 荒川善夫, *Sengoku kinsei shoki no Shimotsuke sekai* 戦国・近世初期の下野世界 (The Sengoku/initial Early Modern realm of Shimotsuke) (Tōkyōdō Shuppan, 2021).

¹²³ Saitō Shin'ichi 齋藤慎一, *Chūsei Tōgoku no shinkō to jōkan* 中世東国の信仰と城館 (Religious beliefs and fortified residences of the Medieval eastern provinces) (Koshi Shoin, 2021).

¹²⁴ Nakai Hitoshi Sensei Taishoku Kinen Ronshū Kankōkai 中井均先生退職記念論集刊行会 (Committee for Publication of a Commemorative Anthology for Prof. Nakai Hitoshi's Retirement), ed., *Jōkaku kenkyū to kōkogaku: Nakai Hitoshi sensei taishoku kinen ronshū* 城郭研究と考古学: 中井均先生退職記念論集 (Castle research and archaeology: An anthology commemorating Professor Nakai Hitoshi's retirement) (Hikone, Shiga prefecture: Sanraizu Shuppan, 2021).

¹²⁵ “Shin shiten Asakurashi no yamashiro” 新視点 朝倉氏の山城 (New perspective on the Asakura clan hillfort), symposium held by the Fukui Kenritsu Ichijōdani Asakurashi Iseki Shiryōkan 福井県立 一乗谷朝倉氏遺跡資料館 (Fukui Prefectural Ichijōdani Asakura Family Site Museum) (Fukui, 8 January 2022).

¹²⁶ “Nejō saikō 2: Sengoku daimyō to kunishū no shiro” 根城・再考Ⅱ: 戦国大名と国衆の城 (Reconsidering Ne Castle 2: A castle of Sengoku daimyo and local lords), symposium commemorating the 80th anniversary of designation as a Historic Site (Hachinohe, Aomori prefecture, 28 November 2021).

¹²⁷ 妻木平 (Gifu prefecture)

¹²⁸ 辻町 (Ehime prefecture)

¹²⁹ 博多 (Fukuoka prefecture)

with imported ceramics. Also, nine new level-ground kilns were discovered at the Mantomi Tōdaiji¹³⁰ tile kiln site, a nationally designated Historic Site. Among publications, there was an introduction to the Medieval temple site Shurasan,¹³¹ and an anthology concerning the Okudaidō.¹³² A meeting of the Ancient Transport Research Society was held, and various issues related to traffic and circulation were presented.¹³³

Trade ceramics were taken up as one of the pillars of research on earthenware and high-fired ceramics, and the trade ceramics of each period were examined in the journal *Bōeki tōji kenkyū*.¹³⁴ In addition, a special feature was organized on pottery with pillar-shaped pedestals in the journal *Chūkinsei doki no kiso kenkyū*,¹³⁵ with regional situations examined nationwide, and a comprehensive examination made including the issue of the source of this vessel.

As for research meetings, regular meetings were held by the Japan Society for the Study of Oriental Trade Ceramics¹³⁶ and the Society for Medieval Ware Research,¹³⁷ and an international symposium was held by the Iwate University Center for Hiraizumi Studies,¹³⁸ with lively discussions unfolding on the theme of the international circulation of ceramics.

7. Early Modern period

Many excavations at castles were carried out. Because these are large-scale sites, surveys may be limited to only a part, but they can obtain important knowledge

¹³⁰ 万富東大寺 (Okayama prefecture)

¹³¹ Egami Tomoe 江上智恵, *Hakata shūen no chūsei sanrin jūin: Shurasan iseki* 博多周縁の中世山林寺院: 首羅山遺跡 (A Medieval mountain temple in the Hakata environs: The Shurasan site) (Shinsensha, 2021).

¹³² Eda Ikuo 江田郁夫 and Yanagihara Toshiaki 柳原敏昭, *Okudaidō: Chūsei no Kantō to Mutsu o musunda michi* 奥大道: 中世の関東と陸奥を結んだ道 (Okudaidō: The Medieval road linking Kantō and Mutsu) (Koshi Shoin, 2021).

¹³³ “Kodai/Chūsei ikōki no kōtsū to saishi” 古代・中世移行期の交通と祭祀 (Transport and ritual of the Ancient/Medieval transition period), Kodai Kōtsū Kenkyūkai Dai 21-kai Taikai 古代交通研究会大会第 21 回大会 (Ancient Transport Research Society 21st Meeting) (held online, 26–27 June 2021).

¹³⁴ 貿易陶磁研究 (Trade Ceramics Studies)

¹³⁵ “Chūjō kodai doki o kangaeru” 柱状高台土器を考える (Considering pottery with pillar-shaped pedestals), special feature in *Chūkinsei doki no kiso kenkyū* 中近世土器の基礎研究 (Basic Research on Medieval and Early Modern Ceramics), no. 38 (2021).

¹³⁶ “Saikin no wadai no iseki/chūmoku sareru kenkyū kara” 最近の話題の遺跡・注目される研究から (Sites of recent interest: From noteworthy research), Dai 41-kai Nihon Bōeki Tōji Onrain Kenkyūkai 第 41 回日本貿易陶磁オンライン研究集会 (41st [Online] Meeting, Japan Society for the Study of Oriental Trade Ceramics) (held online 19 September 2021).

¹³⁷ “Yunyū tōjiki to kokusan doki/tōjiki: Ruiji to mohō” 輸入陶磁器と国産土器・陶磁器: 類似と模倣 (Imported ceramics and domestically produced wares: Similarities and imitations), Dai 39-kai Chūsei Doki Kenkyūkai 第 39 回中世土器研究会 (39th Meeting of the Society for Medieval Ware Research) (Shiga Kenritsu Daigaku, 4 December 2021).

¹³⁸ “11–14 seiki ni okeru Chūgoku tōji no seisan to ryūtsū: Nihon/Chūgoku no jirei o chūshin to shite” 11～14 世紀における中国陶磁の生産と流通: 日本・中国の事例を中心として (Production and distribution of Chinese ceramics in the eleventh–fourteenth centuries: Focusing on Japanese and Chinese examples), international symposium held by the Iwate Daigaku Hiraizumi Bunka Kenkyū Sentā 岩手大学平泉文化研究センター (The Iwate University Center for Hiraizumi Studies) (Iwate Daigaku and online, 20 February 2022).

providing clues for considering the overall shape of the site. In an excavation at Iwakitaira¹³⁹ Castle in Fukushima Prefecture, an inner moat was discovered at a location corresponding to a historic pictorial map. An excavation of the main tower's foundation was conducted at Kōriyama¹⁴⁰ Castle in Nara prefecture, yielding significant results, while at the same time a comprehensive survey of the castle clarified changes in the process of construction for each castle facility, etc., and the results have been published. Diverse artifacts and features were unearthed at the Nakagusuku Udun¹⁴¹ palace in Okinawa prefecture, and the true form of Nakagusuku Udun is being clarified.

Apart from castles, the recovery from the ditch of a city rampart in Kyoto of a stamp used to authenticate a minted silver coin, *Keichō chōgin*,¹⁴² and the results of the investigation of a grave presumed to be that of Miguel Chijiwa, a member of the Tenshō¹⁴³ embassy to Europe, drew attention. In an investigation at Funai¹⁴⁴ Castle in Oita Prefecture, a reconstruction of the residential lot allocation and the identification of the residents is underway.

In investigations of post stations and highways, the excavation of the Kurihashijuku¹⁴⁵ site in Saitama prefecture has been drawing attention. Among the remains of structures standing in a row, districts have been discerned for a variety of facilities such as inns and blacksmith shops, and the image of a post station on the Nikkō Kaidō¹⁴⁶ is coming to light. At the Maehara¹⁴⁷ site in Nagasaki prefecture, a main road called the Hirado Ōkan¹⁴⁸ and a post town lining that road were investigated, and the actual conditions of a post town spanning the Early Modern to Modern periods is being clarified. In addition, Early Modern and Modern remains of the Hokurikudō¹⁴⁹ have been found in Toyama prefecture.

Investigations clarified many aspects of samurai residences, as many discoveries were made including (in Tokyo prefecture) the estate conferred from the mid Edo period upon the *hatamoto* Shimada¹⁵⁰ family, residences for corps of low-ranking samurai serving as flag bearers, the mansion of the Honda family who served as governors of Bungo,¹⁵¹ the site of the daimyo residence of the Matsudaira family of the Saijō domain of Iyo province¹⁵²; (in Kanagawa prefecture) the residence of the

¹³⁹ 磐城平

¹⁴⁰ 郡山

¹⁴¹ 中城御殿

¹⁴² 慶長丁銀 (minted from 1601)

¹⁴³ 天正 [Translator's note: The Tenshō embassy comprised four Japanese Christians who left Nagasaki in 1582, the 10th year of the Tenshō era, and traveled to Europe, returning in 1590. Miguel Chijiwa subsequently died in Nagasaki, where the site presumed as his grave is located.]

¹⁴⁴ 府内

¹⁴⁵ 栗橋宿

¹⁴⁶ 日光街道

¹⁴⁷ 前原

¹⁴⁸ 平戸往還

¹⁴⁹ 北陸道

¹⁵⁰ 嶋田

¹⁵¹ 本多豊後守

¹⁵² 伊予西条藩松平家

chief retainer in the third enclosure of Odawara Castle¹⁵³; and (in Osaka prefecture) the warehouse site of the Kurume¹⁵⁴ domain.

Surveys of production sites were also carried out. At the Arioka¹⁵⁵ Castle site in Hyōgo Prefecture, features of the Early Modern and Modern periods related to sake brewing and pressing were discovered. Also, at the Sainohara *tatara*¹⁵⁶ (bloomery) site in Tottori prefecture, a transition from an old to a new bloomery and the underground structure were clarified. In addition, a stepped multi-chambered climbing kiln was investigated at the Furukameya shimokama¹⁵⁷ kiln site in Saga prefecture. At the Iwami Ginzan¹⁵⁸ Silver Mine, a World Heritage site, an academic excavation was conducted and a large-scale building standing on foundation stones was discovered, suggesting it was possibly a refinery of the latter half of the Edo period.

Large-scale cemeteries were investigated. The graveyard at the former site of the Rinzai sect temple Ryūkōji¹⁵⁹ was excavated in Tokyo, and many stone chamber burials and jar coffin burials were found. The large-scale cemetery called Umedahaka¹⁶⁰ was confirmed in Osaka prefecture, and a large number of graves comprised of direct inhumations were investigated. In Okinawa prefecture, tunnel-style tombs, and mausolea shaped to resemble a tortoise shell¹⁶¹ or having a gabled roof,¹⁶² were investigated in the Shichabaru kobo¹⁶³ (old tomb) group.

In research on artifacts, ceramics, coins, and so forth were taken up. For ceramics, Volumes 14–15 of *Chūkinsei tōjiki no kōkōgaku*¹⁶⁴ were published, discussing various issues such as distribution, production, and manufacturing technology. In addition, a special collection on characters written on Early Modern ceramics was compiled in *Kōkōgaku jānaru*.¹⁶⁵ As for coins, an examination was made of items excavated from Early Modern cemeteries.

As research on burial mounds, graveyards of daimyo were taken up, and the size and structure of the stone chambers, and the actual conditions of burial, were discussed.

In addition, the Edo Archaeological Site Research Society held a meeting with

¹⁵³ 小田原城三の丸

¹⁵⁴ 久留米

¹⁵⁵ 有岡

¹⁵⁶ 才ノ原たたら

¹⁵⁷ 古瓶屋下窯

¹⁵⁸ 石見銀山

¹⁵⁹ 龍興寺

¹⁶⁰ 梅田墓

¹⁶¹ *kaaminakuubaka* 亀甲墓

¹⁶² *hafuubaka* 破風墓

¹⁶³ 下原古墓

¹⁶⁴ Sasaki Tatsuo 佐々木達夫, ed., *Chūkinsei tōjiki no kōkōgaku* 中近世陶磁器の考古学 (The archaeology of Medieval and Early Modern ceramics), Vols. 14–15, (Yuzankaku, 2021).

¹⁶⁵ “Kinsei tōjiki doki ni kakareta moji” 近世陶磁器土器に書かれた文字 (Characters on Early Modern ceramics and earthenware, and those manufacturers), a collection of five articles in *Kōkōgaku jānaru*, no. 754 (2021): 3–21.

the unique theme of “The mouths of Edo period people,”¹⁶⁶ presenting research on oral hygiene, medical care, etc. At research meetings, the Kansai Early Modern Archeology Research Society focused on productive activities such as the production and processing of metals, and sake brewing,¹⁶⁷ and the Early Modern Ceramics Research Society concentrated on Nabeshima ware.¹⁶⁸

8. Modern period

In recent years, many investigations and research are seen for the Modern period as well.

In excavations, there were surveys conducted of the remains of a building from the end of the nineteenth century standing atop a *mizuka*,¹⁶⁹ of the site of a former army hospital, of features at an army facility destroyed in the atomic bombing of Hiroshima, and so forth. Publications included research on fire-resistant bricks, ceramics, and eaves tiles.

What attracted the most attention in 2021 was the discovery and investigation of the Takanawa Chikutei¹⁷⁰ (embankment). The embankment, which was discovered in extremely good condition lying beneath the JR Yamanote line, is a precious archaeological feature telling the story of railway construction as part of Japan's national policy during the Meiji period. Despite a Heritage Alert being issued from ICOMOS, the major portion of the surveyed area was destroyed, with only a small part surviving as a component of a nationally designated Historic Site. The subsequent treatment of the uninvestigated area will likely have a great impact on issues of preservation for Modern era sites in the future.

Conclusion

Unlike the previous year, which was marked by restrictions due to the coronavirus pandemic, archaeological research in fiscal 2021 was generally active, and many ambitious works were published.

¹⁶⁶ “Edojidaijin no kuchi” 江戸時代人の口 (The mouths of Edo period people), Dai 34-kai Edo Iseki Kenkyūkai Taikai 第 34 回江戸遺跡研究会大会 (34th Meeting of the Edo Archaeological Site Research Society) (held online, 29–30 January 2022).

¹⁶⁷ “Kinsei toshi no hatten to sangyō” 近世都市の発展と産業 (Development and industry of Early Modern cities), Dai 31-kai Kansai Kinsei Kōkogaku Kenkyūkai Taikai 第 31 回関西近世考古学研究会大会 (31st Meeting of the Kansai Early Modern Archaeology Research Society) (Ōtemae Daigaku and online, 4–5 December 2021).

¹⁶⁸ “Edo jidai ni Sagahan ga tokubetsu atsurae shita Nabeshimayaki no tokushitsu” 江戸時代に佐賀藩が特別誂えした鍋島焼の特質 (Unique characteristics of Nabeshima ware specially ordered by the Saga domain in the Edo period), Dai 10-kai Kinsei Tōji Kenkyūkai 第 10 回近世陶磁研究会 (10th Meeting of the Early Modern Ceramics Research Society) (Imari, Saga prefecture, 12–13 February 2022).

¹⁶⁹ 水塚 [Translator’s note: Also read *mizutsuka* and *mitsuka*, this was an elevated building foundation constructed in regions prone to frequent flooding from nearby rivers, atop of which a storehouse was built to serve as a place of refuge when flood waters inundated the area. Typically a two-story structure, the storehouse would have an upper floor for temporary living, with storage space for rice and other valuable commodities below.]

¹⁷⁰ 高輪築堤 [Translator’s note: A portion of the embankment was added in 2021 to the nationally designated Historic Site of the Former Shimbashi Station, which was then re-designated as the Former Shimbashi Station Site and Takanawa Chikutei Site.]

Research is not limited to archaeological materials, but based on advances in scientific analysis, and it can be said that the field of view has expanded as a whole with the addition of a variety of information on the natural environment, climate change, dating methods, isotope analysis, and so forth. However, it is necessary to evaluate in calm fashion the accuracy of natural scientific analysis, and the range and the limits of the significance shown by its data, and use those data in conjunction with the results of archaeological research. With that in mind, we look forward to further achievements in the future.