慶應義塾大学学術情報リポジトリ
Keio Associated Repository of Academic resouces

| | |
|---|---|
| Title | Archaeological craftwork 2022 : ethnography of archaeology at Suwahara site, Hokuto city, Yamanashi 2022 |
| Sub Title | 山梨県北杜市諏訪原遺跡における考古学の民族誌2022 |
| Author | Ertl, John<br>吉田, 泰幸( Yoshida, Yasuyuki) |
| Publisher | 慶應義塾大学日吉紀要刊行委員会 |
| Publication year | 2023 |
| Jtitle | 慶應義塾大学日吉紀要. 人文科学 (The Hiyoshi review of the humanities). No.38 (2023. ) ,p.1- 39 |
| JaLC DOI | |
| Abstract | |
| Notes | |
| Genre | Departmental Bulletin Paper |
| URL | https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN10065043-20230630-0001 |

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the KeiO Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

# Archaeological Craftwork 2022: Ethnography of Archaeology at Suwahara Site, Hokuto City, Yamanashi 2022

John Ertl, Yasuyuki Yoshida

## Introduction

This is a report on our ethnography on the production of archaeological knowledge in Japan. It documents the fourth year of our project that involves the excavation and reconstruction of a Middle Jomon period pit dwelling. In previous reports, we have: 1) detailed our introduction to Suwahara site and the struggles to make sense of it (Ertl and Yoshida 2020); 2) interviewed site managers at three sites in Central Highlands to compare approaches to designing pit dwellings (Ertl and Yoshida 2021); and 3) outlined our research design and objectives (Ertl, Yoshida, and Ikari 2022).

Excavations at Suwahara site (Hokuto city, Yamanashi) began in 2019 and the project will end with the construction of a pit dwelling at Umenoki site park (also Hokuto city) based on the information garnered from excavations. The novelty of the research design, from an archaeological standpoint, is in taking architectural reconstructions as the guiding aim for the excavation, laboratory work, and experiments. The aims are to learn about the physical attributes (shape, structure, and materials) of Jomon period pit dwellings and to understand how Jomon people built them. As an ethnography, we are uniquely positioned to follow the multitude of activities during an archaeological project. As it moves from conception to

completion over several years, we are documenting the uncertainties, decisions, and compromises that we experience as we move within and in-between different fields of activity (e.g., the excavation site, laboratory, and outdoor displays).

In this report, we focus on the excavation at Suwahara during the 2022 field season. Divided into three sections, each delves into three extended anecdotes that further develop our central theme of archaeology as craftwork (Shanks and McGuire 1996). The first looks at the idea of *embodiment* (e.g., Bourdieu 1977; Merleau-Ponty 2002), introducing Kobayashi Ken'ichi and his participation at Suwahara. Among the episodes observed, we take note of his ability to see and codify soil color and composition without aid of diagnostic tools and charts (Goodwin 1994). Second, we turn our attention to the concept of *artifice* (e.g., Hall 2014), referring to the deliberate and sometimes deceptive process of manufacturing the past out of archaeological remains. Parallel accounts first introduce the reconstruction of a (Sori 5 phase) Jomon pit dwelling at Umenoki site, with a second looking at how the excavation team fashioned a (Sori 5 phase) Jomon pit dwelling feature out of scant remains at Suwahara site. The third episode dwells on the idea of *charisma*, drawn from work on "charismatic species" in biology (e.g., Bowker 2000), to understand the compelling force of some artifacts while others remain inert and overlooked. The account follows the inordinate attention that we gave to a magnificent *suienmon* (vapor) style pot as it was carefully removed from the ground, immediately broke into pieces, and was carefully cleaned and repaired.

## Suwahara Excavation 2022

In 2022, our research activities branched out in many directions. Remains from Suwahara were processed at our respective laboratories, where pottery and stones were washed, coded, weighed, identified by type, and input into a database. The authors visited archaeological parks in Tokai and Hokuriku to document the rebuilt prehistoric architecture of the region (Ertl and Yoshida 2023). Fieldwork was

conducted in the western United States to examine similarities between how Jomon reconstructions and Native American folk architecture is built. After finding an intricate handle from a *suienmon* pot during excavations, new research at the Hokuto City Archaeology Center used a 3D scanner to assist in documentation and restoration. Lastly, over the period of several months the authors joined volunteers at Umenoki site to build a Middle Jomon period pit dwelling.

Kobayashi Ken'ichi (professor of archaeology at Chuo University) joined the team in 2022. Kobayashi is seasoned fieldworker, and his participation gave the excavation a vastly different dynamic. Including his many students and guests, participants grew to over 50 people from just 5 and 6 members in 2019 and 2021.(1) This had several implications. For one, with new students arriving daily, there were ample opportunities to watch how people learn archaeology. Also, with several experienced fieldworkers on site, much of the work progressed without need for discussion or confirmation among the team leaders.

Unlike previous years, the multitude of ongoings at any one moment made it impossible to follow them all. As a result, our observations became even more fragmented and partial. There were some activities that we never took part in (e.g., dry screening) and there were others that we naturally gravitated toward. At the same time, not having to "do everything," we were also free to stand back and observe as work continued around us.

**Timeline and summary of excavation**

The 2022 excavation season ran from 30 August to 15 September (Table 1). Excavations focused on widening and lengthening the main trench (subtrench 3 or

(1) The majority were novice students from Keio University, Morioka University, Chuo University, and Gakushuin Women's College, and several students from Chuo have previous experience (some extensive) at archaeological sites. Many visitors made comments and suggestions that helped direct the course of our excavation.

Table 1: Timeline of research activities.

| Phase | Date | Activities |
|---|---|---|
| Pre-excavation (between excavation seasons) | April to August 2022 | Laboratory work: Clean and sort artifacts (at Keio University) |
| | April 13 | Meeting with Kobayashi Ken'ichi (at Chuo University) |
| | May 13 | Visit to Umenoki Site Park and Suwahara site with students of Morioka and Chuo Universiry |
| | June to August 2022 | Mowing at Suwahara site a couple of times |
| Excavation | August 30 | Preparation: rent excavator, set up toilet, set up datum (benchmark for measuring), set up grid benchmark, remove soil on blue sheet by hand |
| | August 30 – 31 | Re-surface of the site, suervey ST3 (sub trench 3), extend width of ST3 |
| | September 1 – 7 | Set up and excavate Slide NE1 and SE1, exntend length of ST3, survey ST3, set up PJ 2-4?, set up and excavate pit 6-8, Simon Kaner and Liliana Janik visited the site (on September 1), Uruma Toshiaki and his colleagues visited the site (on September 7) |
| | September 8 | Visit to Museums, laboratory work at Kayabun: clean and sort artifacts (due to rain) |
| | September 9 | Set up and excavate Slide NW1 and SW1, Sano Takashi and Yamagata Mariko visited the site, found the hearthstone and set up PJ5 |
| | September 10 – 14 | Search the plan of PJ5, survey PJ5, Kushihara Koichi and his colleagues visited the site (on September 12), Aki Sahoko and her colleagues visited the site (September 13), salvage the vapor pot from PJ1 (on September 13) |
| | September 15 | Closure: clean site, return equipment, fill sand into pit to preserve archaeological features |
| Post-excavation (preparation for 2023 excavation season) | September 16 | Visit to Umenoki Site Park with Nguyen Hoang Bach Linh |
| | October 2022 to March 2023 | Laboratory work: Clean and sort artifacts (at Keio University, Morioka University, and Chuo University), restoration work of the vapor pot (at Hokuto City Archaeology Center) |
| | November 2 | Meeting with Kobayashi Ken'ichi (at Chuo University) |

Figure 1: Overhead view of Suwahara site at the end of excavations. (14 September 2022)

ST3), after which the remains of a pit house (PJ1) were dug out in 50cm wide "slides" (Figure 1).

Preparations involved cutting grass and confirming the delivery of a storage container and toilets. The first day was spent uncovering the site, moving piles of dirt away from the edges, setting up the benchmark for our survey, and re-surfacing the site. Over the next several days, ST3 was widened from 40cm to 50cm, and its length was extended southward to the far end of the site. Doing this, three new pit dwellings were tentatively identified along ST3 (coded PJ2, PJ3, and PJ4). Profile maps were made for both sides of ST3. The depth of ST3 varied, reaching close to 50cm at the potential floor of PJ1 (the first identified pit dwelling) at the north end and 20cm at the south. Additionally, several pits around the site were excavated.

Next, the trench around PJ1 was divided into four 50cm "slides" (two on each side of ST3) that will allow for creation of additional section maps. The slides in the north and south were bisected by a 50cm wide belt that forms a cross section. Each of these slides were given a code (Slide NE1/SE1/NW1/SW1) denoting it as the first slide in their relative location (e.g., northeast, southeast, etc.). These were

Figure 2: Close-up view of ST3 and the four “slides” excavated in 2022. In the upper right quadrant (NW1) there are two hearthstones visible that are thought to be from a Sori 5 phase pit dwelling (PJ5) Next to those stones is a flat stone along the floor of PJ1. On the left side of ST3, a dark circle reflecting a possible pillar hole is visible. Red dirt was found in the top right corner of ST3, providing evidence of a possible fireplace for PJ1. Several large pots and rocks remain in the slides. (14 September 2022)

excavated in 10cm intervals and stopped at the apparent pit wall for PJ1. Coordinates for all artifacts were mapped with the total station and given unique identification numbers (SU22_1001 to SU22_2363). Artifacts include pottery, obsidian flakes, stone axe heads and grinding tools, and carbon remains. Rocks (larger than the size of a fist) were also mapped, after which they were washed, weighed, and photographed (but not collected). The removed soil was either dry screened (5mm), or it was saved in bags to be processed later.

The floor of ST3 was identified by changes in soil color (from a dark brown/black to light yellowish-brown) and density (soft to hard) (Figure 2). Along the floor, a posthole was identified but was not excavated. A large flat stone was found on the floor of Slide NW1. Also, reddish-brown dirt was found on the floor at the center of ST3, at the corner of cross-section belt, which is likely charred remains pointing to a firepit or hearth. Several large pots and rocks were identified (with

some remaining) in the soil approximately 5–10cm from the floor. The soil becomes much darker at this final layer before the floor and few potsherds have been found below it.

Excavating Slide NW1, two large flat stones standing perpendicular to the ground were discovered. These were identified as hearthstones from a Sori 5 phase pit house. The code PJ5 was given to this pit dwelling, and this dwelling appears to directly overlap with PJ1 below.

Excavations finished on 14 September and final photographs were taken in the early evening. On 15 September, the site was cleaned, and bags of dirt were placed in the trenches and pits to protect them. The site was finally covered with tarps and filled with 10–20cm of sand.

## The Munsell Chart Embodied

The following episode is from a video taken by John Ertl at 14:19 on 1 September. A variety of activities are taking place, with Yoshida and students in the background setting up a tent as it is beginning to sprinkle rain. Inside the site, several students are "shaving" the ground with hand trowels to reveal a fresh layer of soil as others are widening the main trench (ST3). For the next twenty minutes, the camera is centered on Kobayashi Ken'ichi and follows him as he analyzes the western section profile of ST3.

Kobayashi steps across the trench toward his student Shibata Miki (fourth year undergraduate). He asks, "Shibata, do you have good handwriting?" (*Shibata-san, ji wa kirei?*) to which she responds, "its normal" (*futsū desu*). He hands over his green survey notebook (Figure 3) and Shibata pulls a pencil from her pocket. He quickly kneels on the ground and scrapes at the side of the trench.

Without looking back, Kobayashi calls out "*jū wai āru.*" Not quite ready nor really understanding what Kobayashi just said, Shibata quickly interjects "uh, sorry" and squats down beside him. Kobayashi looks up and repeats, "*jū* (the

Figure 3: Kobayashi Ken'ichi hands his survey notebook to Shibata Miki before making observations of the soil color and composition of the western section of subtrench 3. (1 September 2022)

number ten) *wai* (the letter y) *āru* (the letter r)" and watches her write in the notebook. He continues, "*ettō… san pā yon*" and, again sensing confusion, he looks at Shibata and explains "just write a three, a slash, then four" (*san kaite naname no sen yon ne*).

For the next few seconds, Kobayashi repeatedly touches the soil with his index and middle fingers (Figure 4). Keeping his eyes on the soil, he habitually rubs his fingers and thumb in circles to check the consistency. He calls out, "Somewhat hard, low clay content, slightly compacted" (*yaya-katai, nensei-shō, shimari yaya-dai*), at which he pauses, shakes his head, and repeats, "yeah, slightly compacted is fine" (*shimari yaya-dai de ii*). Watching Shibata write this down Kobayashi moves on, "as for the soil content, um…" (*de naiyō butsu ni tsuite, ettō…*) and takes a moment to think. Kobayashi picks up:

> Yellowish-brown particles (*ōkasshoku-ryū*), two to three millimeters, one percent. White particles (*hakushoku-ryū*), one to two millimeters, two

Figure 4: Kobayashi Ken'ichi touching the top layer of soil along subtrench 3 as Shibata Miki makes notes of his observations. (1 September 2022)

> percent. Sand, sand particles… (*suna, saryū…*) three to four millimeters, three percent. Small pebbles, including large pebbles… basically there is little debris. Possibly the upper layer cover soil of a dwelling. (1 September 2022)

Kobayashi finishes, "That's all. Next layer two" (*Ijō, Tsugi nisō*). Shibata asks for a moment to complete her notes and Kobayashi watches over her writing.

As they move from section to section, similar information about the soil is communicated. In some layers, Kobayashi mentions carbon remains (*tanka-butsu*) and where the different colored soil particles are larger, he calls them "blocks" (*burokku*) rather than "particles" (*ryū*). But as a whole, this exercise is repeated for each stratigraphic layer for the next twenty minutes.

**Standards and relativity in archaeological practice**

The mysterious set of letters and numbers that Kobayashi rattled off was a code

from the Munsell Soil Color Chart.[2] The code is written 10YR 3/4 (*jū wai āru, san pā yon*) and the color description it refers to is "dark yellowish-brown." The first set of number and letters denote the "hue" (how red the soil is), with 10YR meaning 10 parts yellow to 1 part red. The following number (3) refers to the "value" (lightness/darkness of the soil) and the last number (4) refers to the "chroma" (brightness/dullness).

Learning how to properly "see" and communicate the color of soil takes time and effort (Goodwin 1994). Usually, finding this color code requires orchestrated movements using a trowel, a spray bottle, and the Munsell Chart, which are used to view the soil through holes next to swatches of color. For budding archaeologists, this ability to see soil color requires instruction from experienced archaeologists. The benefit of using the Munsell chart is that each color swatch contains a unique code. This assures archaeologists there is a consistency in how soil colors are described, no matter how many workers are recording the color of soil at a site. And this uniformity should, at least in theory, allow for objective comparisons and analyses.

Kobayashi's "embodiment" of the soil color chart is the stuff of legend and rumor. For example, when Yoshida was a graduate student, he heard an interesting episode from a student who participated in a rescue archaeological project excavation led by Kobayashi. According to him, everyone was aghast at how Kobayashi was able to evaluate and codify the soil color for each layer without looking at the Munsell chart. Now some twenty years later, Yoshida experienced the strange feeling that the rumor had been true all along.

Asking about this, Kobayashi was reflexive about his work. He said, "Of course, I do not believe that my color assignments are always correct in comparison

---

(2) In Japan, soil color charts are bound books titled "Standard Soil Color Chart" (*Hyōjun doshoku chō*) and are published by the Ministry of Agriculture, Forestry and Fisheries. The codes used are the same as those in the Munsell Soil Color Chart.

with the standard soil color chart. However, it is important to see the soil in the excavation field with one's own eyes. I have a firm relative color standard in my mind, so as a relative soil color record, it is no problem." Kobayashi is probably right. Giving codes according to the Munsell chart is a routine part of archaeological excavation, and those records of soil colors are included in the excavation reports as "objective data." However, we rarely see them used for any kind of verification. Perhaps the assignments of a soil color code is important only in that the results are noted.

What is important for Kobayashi, is that by assigning color codes and other attributes (e.g., clay content, compaction, etc.) he is able to begin the interpretative process. Understanding that section maps and observations are limited tools, Kobayashi explained:

> There is certainly a lot of interpretation going on, but I am simply stating what I see. Here I'm not really sure if it's two layers or one. In reality, this layer should not really be so neatly divided, it should be a gradation. That kind of thing is ignored in the section [map]. It's a drawing and description for interpretation. It is different from a photograph in that respect. There are good points and bad points to the section [drawing and observation notes]. (1 September 2022)

Asking how this helps to explain or illustrate the deposition process, Kobayashi continued:

> In this case, when this dwelling was first inhabited, a hard surface was formed here. After the people were gone, the pottery and gravel were probably thrown inside. Then organic materials were thrown away together, producing carbonized materials. Finally, for some time the soil

> was left alone, and nothing was deposited. The current observations I am making [on soil color and composition] are the primary data for the interpretation of depositional processes. (1 September 2022)

With Kobayashi, it seems his "embodied Munsell chart" is a skill that has allowed him to build meaningful observations and narratives out of fluctuations in the color and content of the earth. No one will ever check if the soil color of the top layer of PJ1 along ST3 was actually 10YR 3/4 or not. If that is the case, why then bother to use these color codes in the first place? On the surface, they produce an aura of objectivity. Certainly, if used as intended, the Munsell color chart provides that. But for Kobayashi, what is important is not the "accuracy" of the color code, the actual percentage of carbon material, or size of sand particles. Rather, his interest is in the relative color and composition – a comparison between the layers – which allow him to make interpretations about how a pit dwelling feature took on its current form. The use of the color code (e.g., in publications) portrays the image of honesty and factuality, when it may equally be seen as a device or contrivance that brings about meaningful information about otherwise inert dirt.

## Two Sori 5 Phase Pit Dwellings: Umenoki and Suwahara Sites

On 8 September 2022, our excavation uncovered a pair of large stones buried in the ground (Figure 5). The next day Sano Takashi visited the site and identified these as hearthstones from a pit dwelling typical of the Sori 5 phase (the final phase of the Middle Jomon period). This discovery was a surprise, as we had been digging away at ST3 (our main trench) directly next to this location, oblivious to the pit house that these hearth stones positively revealed. Its discovery set us in motion to identify and "recover" this pit house that had escaped our vision for the past two years.

At the same time, at Umenoki historical park, several of our excavation team were assisting in the reconstruction of a pit dwelling. It just so happened that this

Figure 5: Chuo University students taking measurements and collecting remains from the northwest slide. The two hearthstones of PJ5, visible in the bottom left, were uncovered earlier that afternoon. (8 September 2022)

building was also based on remains from the Sori 5 phase.(3) At Umenoki, the intent was to reproduce a building that reflected the final phase of the settlement, one that was built by the Jomon residents in a manner quite different than dwellings during its peak.

In the Central Highlands, the final stage of Middle Jomon period settlements correlates to the presence of Sori-type pottery. Sori-type pottery is typically subdivided into five phases (Sori 1 to Sori 5) and dates to 3000cal BC–2540cal BC (Kobayashi 2019: 107–109). Chronologically, Sori-type pottery comes after Idojiri-type pottery (Middle Jomon) and is followed by Shomyoji-type pottery (the

(3) The reconstruction work at Umenoki began on 14 May 2022 and extended through 31 March 2023. Volunteers worked Friday and Saturday mornings except for August and the winter (December through February) During that time, Yoshida visited twice: first for the starting ceremony with one of his students from Morioka University and again on 16 September. Two groups of students, one from Keio and one from Morioka, participated during the first weekend of excavations. Ertl participated most days starting from 18 June.


Figure 6: A large section of a Sori 5 pot with its characteristic herringbone incisions. These potsherds were excavated during the first season at Suwahara in 2019. (12 February 2020)

start of the Late Jomon). The most distinct Sori-type vessels are *suienmon* (vapor) pots (most from Sori 1 phase), which were made with decorative handles and flowing lines. In the latter Sori 5 phase, pottery is less ornate, yet easily identifiable with incisions that form a herringbone pattern (Figure 6). Indeed, this kind of Sori 5 type pottery was the first we came across during our initial excavations in 2019 (Ertl and Yoshida 2020: 161–166). As Sori 5 phase pottery marks the end of the Middle Jomon period, sites where this pottery are found reflect a transitional era, where the settlement and subsistence patterns, and even population of the Jomon period dramatically changes (e.g., Habu 2004: 46–50).

The Sori 5 phase is therefore important for understanding how and why these sites underwent growth and decline. In practical terms, both Suwahara and Umenoki sites begin in the late Idojiri phase and continue through all five Sori phases. Both sites are largely abandoned after the Sori 5 phase and contain only a minimal amount of late Jomon period remains (Hokuto City Board of Education 2008; 2014).

Figure 7: Views of reconstructed pit dwellings at Umenoki site in September 2020. These are based on more "typical" pit dwelling remains in the region. Both of these are larger than the Sori 5 reconstruction and were built with a rooftop entrance. (1 September 2020)

**The artifice of reconstruction: building a Sori 5 phase pit dwelling at Umenoki site**

From May 2022 to March 2023, Sano Takashi oversaw the work of volunteers who constructed of a pit dwelling based on Sori 5 remains at Umenoki site. In some ways, this was a logical evolution for the development of the site. In previous years, they built pit dwellings of various sizes and with different numbers of pillars (from 4 to 6). Each of these buildings represented a different style of pit dwelling that reflected the different phases of occupation at Umenoki (Figure 7). As this was the fifth and, for the time being, final building to be constructed, it was fitting to choose remains that reflect the final phase of site occupation. At the same time, this was an odd choice. Buildings from the Sori 5 phase are more modest in scale from those in the preceding phases and the archaeological remains of these dwellings are comparatively scant. At most archaeological site parks, reconstructions are based on the most comprehensive dwelling remains from the height of the settlement, not from a period that reflects its decline.

Discussing the design, Sano explained that there are a few characteristic features of Sori 5 phase dwelling remains. The floor plans are often smaller, the pits are quite shallow, and buildings have fewer posts (in this case three). Sano also explained that buildings from this final phase reflect changing settlement patterns. Fewer materials and energy were expended on the buildings, probably meaning the Jomon people were spending less time at the site. Sori 5 phase pit dwellings, Sano suggested, were "likely used for only a few years," where the precursors reflected long-term occupation. Moreover, the shallow pits reflect a lesser need for shelter during the cold winters, which may reflect increased mobility or seasonal encampments. These changes continued until people no longer found the need to return to Umenoki.

According to Sano, the Jomon people adopted a quick-and-dirty approach to their buildings during the Sori 5 phase. This approach was adopted in the reconstruction work to a certain extent. At first, the volunteers commented at how fast this year's house was coming together compared to previous ones. The small size and less complicated structure reduced the time to collect wood and dig out the pit and post holes. By early September the framing was well underway, and people openly wondered if they would finish before winter (Figure 8).

They might have done so too, if it were not for a few decisions that delayed completion. Sano discussed how rope for the Jomon people would have been less abundant and therefore used sparingly compared to modern-day reconstructions. One of the places that rope is abundantly used at Umenoki is in tying the horizontal laths (*komai*) to the vertical rafters (*taruki*). To reduce the amount of rope needed, Sano asked the volunteers to cut indentations into the rafters that would allow the laths to rest securely on top of them. The results were mixed.

The second decision was to gather dirt for the roof. As the pit for this building was shallow (10–20cm), there was little dirt to cover the roof with. Collecting new dirt was a chore that took several weeks, using picks, shovels, wheelbarrows, and

Figure 8: Students from Morioka University work alongside the Furusato Club volunteers at Umenoki site building the Sori 5 phase pit dwelling. (3 September 2022)

carts to move it. This problem where the excavated pit does not produce enough dirt to cover the roof has come up at other sites. For instance, experiments with sod roofs at Goshono site (Ichinohe Town, Iwate) found that depending on the depth and circumference of a pit house there may not enough dirt to cover it completely, making it necessary to rethink the materials and design of the roof (Ichinohe Town Board of Education 2017).(4)

Several features added to this pit house made it far sturdier and nicer than its Jomon period counterpart would have been. Some were meant to improve its appearance, like adjusting the slope of the roof and modifying the shape and location of a ventilation window. Other features like adding cedar bark shingles and plastic waterproof membrane were included to extend the lifespan and usability of the structure.

(4) The decision at Goshono was to cover the remaining roof with bark, which Takada Kazunori (director, Goshono Jomon Museum) found was a better solution as it allowed for ventilation without a special window while adequately preventing water intrusion.

The challenge to make this Sori 5 phase pit house was in incorporating what is known about the Jomon structure with what has to be assumed or guessed about it. There was also a struggle between our abstract understanding of what technologies were available to Jomon people and our inexperience in using them. Additionally, many elements of the building were a compromise between including elements accurate to the Sori 5 period with its intended use as a storehouse for groundskeeping equipment (e.g., the entryway had to be made 120cm wide to fit in a tractor).

The resulting pit house is an artifice. It is an amalgamation of disparate data, prolonged discussions, multiple activities, and conflicting ideas and intentions that work their way into a fixed and unchanging form. It unreflexively and unapologetically presents itself as an ancient structure, even though it is obviously contemporary. Often, the messiness and indecisiveness involved in reconstruction is contrasted with the tidiness of the archaeological data used to make it (Unno 2017). Indeed, reconstruction projects generally take archaeological evidence as a given. Even if information is limited to the measurements of the pit and placement of postholes, such data are incorporated as unnegotiable starting points from which the design and construction may diverge (Ertl 2021).

But is the archaeological record really as immutable as it seems? Back at Suwahara, the Sori 5 pit dwelling feature we excavated in 2022 could be considered fabrication as much as it was a discovery.

**The making of PJ5: how archaeological features are formed**

As we have tried to show in previous reports, the archaeological record is as much an artifice as are the reconstructed buildings based upon it (Ertl, Yoshida, and Ikari 2022). It is the product of artful skill. It represents and preserves the multitude of actions performed on remains in the form of images, graphs, and tables. At the same time, it is deceptive in how it presents remnants of the past as a reality (e.g., something that was simply there), when remains should rather be understood as

Figure 9: Uruma Toshiaki from Nirasaki City Board of Education examining a stone at Suwahara site. A day before, Ertl asked Kobayashi if the markings on the side of this stone were natural or manmade. At the time, he assuredly replied it was natural processes, but during Uruma's visit he asked for his opinion on the matter. This was one of several examples where Kobayashi deferred to the expertise of local archaeologists. (7 September 2022)

having been purposefully recovered and transformed into an "archaeological record."

Mentioned above, the initial "identification" of our Sori 5 phase dwelling (given the name PJ5) took place on 9 September 2022. The previous day we began to enlarge the trench in the northwest quadrant (Slide NW1) and had reached 5–10 cm in depth. Visiting the site, Sano Takashi pointed to two inconspicuous stones and mentioned they are typical hearthstones. Now viewed as hearthstones, many things we had been working on took on new meanings. For example, the day before (8 September) we had excavated a group Sori 5-type pottery sherds in the same stretch of this trench – and these were near to a large group of Sori 5 pots found during our 2019 excavation (Ertl and Yoshida 2020: 161–166). It also helped us make sense of some of the larger grinding stones that dotted this area, several of which were pointed out to us by Uruma Toshiaki from the Nirasaki City Archaeology center on 7 September (Figure 9).

In all fairness, it now felt as if we had been ignoring an abundance of evidence pointing to this Sori 5 phase pit dwelling feature. Even the Suwahara site report (Hokuto City Board of Education 2014: 13), which we had examined before starting our excavations in 2019, clearly shows overlapping pit dwellings identified during initial surveys. In short, even though we were prepared to find a pit dwelling and had ample evidence pointing to its presence, it still took us three years of digging about to finally notice it.

**Three heads are better than two**

Despite the evidence of these hearthstones, we were still unable to "see" the Sori 5 pit dwelling. Even Sano, who was quick to find the hearthstones, could not identify the pit floor beyond them. Sano explained that Sori 5 dwellings are elusive and commonly identified only after a hearth or buried pit vessel (*umegame*) are found. As the pits are quite shallow, they do not reveal themselves in the same ways the earlier Middle Jomon dwellings, and they sometimes have no identifiable floors or postholes. Indeed, we had been excavating ST3 (subtrench 3) with the thought that we were excavating a single pit house that extends 40 to 50 centimeters below the current surface. Having now identified the remains of a Sori 5 phase pit dwelling, and now given it the codename PJ5,[(5)] we had to decide how to proceed.

This is where we experienced our first impasse. Ertl wanted to continue with the "egg slicer" survey (Ertl, Yoshida, and Ikari 2022: 7–10) as we had been doing, thinking that PJ5 would reveal itself in profile. Kobayashi rightfully insisted that

(5) The code PJ5 is shorthand meaning a pit dwelling (P) from the Jomon period (J) and the fifth (5) one identified during our excavations. Apparently, the first pit dwelling feature (PJ1) that we have been excavating overlaps almost completely with this Sori 5 phase dwelling (PJ5). Logically, it might make sense for the numbers to be reversed, as the Sori 5 dwelling is "above" (the first to come into view) PJ1. Furthermore, as PJ2, PJ3, and PJ4 have still to be excavated to any degree, it is possible that these are, in fact, not pit dwellings at all.

Figure 10: Students excavating to reveal new information about PJ5. They are excavating a new "slide" that is 10cm removed from the previous slide where the PJ5 hearthstones were discovered. (9 September 2022)

we must identify, excavate, and document the remains of PJ5 before any (more) of it was lost. Discussing how to proceed, Kobayashi suggested we dig 5–10cm around the hearth to find new details about the dwelling. Yoshida saw no problem with this. Ertl resisted, however, adamant that we keep the section profile, which was core to our excavation methodology. Ertl suggested waiting until after we finished this section, even if it meant waiting until next year to proceed.

After a bit of deliberation, Yoshida offered a solution. He suggested we keep a 10 cm section where the current profile is located, allowing us to keep the current section intact (Figure 10). Voicing his satisfaction with Yoshida's plan, Kobayashi said, "three heads are better than two" (*san-nin yoreba monju no chie*).

**The hunt for and fabrication of PJ5**

Excavating around the hearth revealed a few details about PJ5. A third (apparent) hearthstone was uncovered at a 90-degree angle to the earlier ones. We also found a group of Sori 5 type pot sherds in the same general area where others had been

Figure 11: Overhead view of the excavation work at Suwahara site on 10 September. One group of students in the foreground are scraping the surface of the site in search of the floor boundary of PJ5. In the middle, other students are taking measurements and collecting pottery and other remains. In the top right, students are dry screening the excavated soil looking for micro-remains. (10 September 2022)

found. Lastly, the surface soil seemed to be a thin layer of hard dirt containing bits of charcoal with red and white flecks. Underneath this layer, the dirt again turned soft and black. As the Sori 5 pottery seemed to rest on this hard layer, and as no new Sori 5 pottery was found beneath it, we thought this hard dirt might be the last remnants of the floor.(6)

The work to identify PJ5 was extensive and continued until the last day of excavations. Activities included spending a two days “shaving” the ground around hearth looking for differences in the ground color, hoping this would help identify the pit floor (Figure 11). On 12 September, Kushihara Koichi from Teikyo University, visited us. He did not see an outline of a pit floor but pointed to the various stones that laid around the site. He explained that in the Sori 5 phase, it is

(6) On further reflection we are still unsure if this was the floor of PJ5 or if the dirt was simply hardened from the hot sun and the several days that the excavation team trampled it.

common to find stones along the inside edges of the pit. Looking at the stones around PJ5, we pointed to some that seemed to fall in a radius around the hearth and discussed whether they mark the location of a pit floor. We also noticed a broken flat stone (*shiki-ishi*) directly south of the hearth. Thinking this might mark the entryway to PJ5, Yoshida, Kobayashi, and Ertl poked around the flat stone hoping to find a buried pot (*umegame*). This revealed a few pottery sherds but there were no signs of a buried pot at the surface level. It is still possible that we may find one there as we dig deeper.

Despite days of work, the floor outline of PJ5 was no closer to being "found." This is despite assistance from Sano, Kushihara, and other experienced archaeologists. Ertl and Yoshida thought that PJ5 was impossible to locate, whether it was still waiting to be revealed or, more likely, because we already dug through the floor. We figured that any more effort spent on PJ5 would have to wait until next year. Kobayashi, however, was determined to document it by the end of the excavation season. He explained, this was necessary because the feature is likely to change (or at least our perception of it will change) before we get back to it next year.

PJ5 was worked into its "final" shape (for now at least) on the afternoon of 13 September. To begin, Kobayashi had his students dig out an outline for PJ5. Watching this, Ertl and Yoshida confided that it appeared to be equal part scientific excavation and equal part wishful thinking.

To be clear, Kobayashi was not being dishonest. Working on his knees, Kobayashi said, "the floor here is probably gone already" and it likely had been a few centimeters above the current surface. Notwithstanding, he etched out a circumference for PJ5 with his trowel in a diameter around the hearthstones. His students removed a few centimeters of soil around this line, creating the impression of a pit floor. Kobayashi shrugged that this was the best one could do with what remained. He was under no illusion that it was an accurate reflection of the original

Figure 12: Kobayashi Ken'ichi taking photographs of PJ5 following excavation from the west side of the excavation site. The tripod and drafting table used to draw the plan of PJ5 is visible on the right. (13 September 2022)

floor of PJ5. His confidence to craft out this pit floor out of seemingly non-existent remains could be argued as justified by his years of experience in the field – having given him an implicit understanding of "what had been there."

**Inscribing PJ5: making an archaeological map**

With PJ5 now revealed in the ground, the important process of documentation took place. First, Kobayashi took photos (Figure 12), standing on a ladder to get a higher vantage point. He took images from both the west and the north ends of the site. Second, Kobayashi directed two students to map out PJ5 using a plane table survey (*heiban sokuryō*) (Figure 13).

The plane table survey is the classic method to make archaeological maps and requires several pieces of equipment: the plane table, a tripod, an alidade (to look through), a plumb (to find vertical line), a level (to find horizontal), a tape measure (for distance to a point), a survey staff (to find distance and height), an auto level (for height), graph paper, a scale ruler, and drawing equipment. Setting up the plane

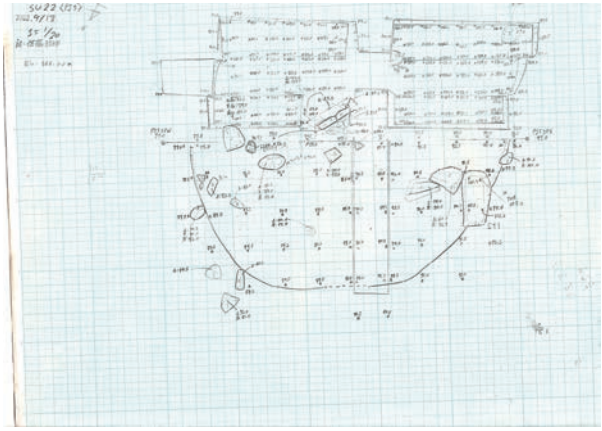

Figure 13: Archaeological feature map made on 13–14 September 2022. It was drawn by Sato Toshiki (undergraduate), Mashimo Toyomi (PhD student) worked the survey staff and tape measure, and several other individuals took turns using the auto level to find the height.

table took a bit of work to get it horizontal, following which a reference point (called "*heiban pointo*" by the student explaining his work) was set up directly beneath the drawing board and paper. Points were drawn on the grid paper by one student. He determined the angle of the point by looking through the alidade toward a second student holding the survey staff, thereby providing the angle. The second student used a tape measure tied to the reference point and called out the distance to the staff. The location of the next point on the map was calculated using the ruler, set in this particular case to 1:20 scale. Finally, the elevation is determined with an auto level, which was used by a third person who read out the height on the survey staff. This measurement was noted on the map, with the actual heights to be compiled later in the lab.

Archaeological illustrations are deeply embedded in the craft of archaeology. Jonathan Bateman (2006: 68) explains that they are a "crucial link" between the destructive (excavation) and productive (archaeological record) sides of

archaeological practice. “Archaeological drawings,” Bateman explains, are “at once, both reasons for the destruction entailed in excavation and saviors of that which is destroyed” (2006: 69). They are not only key records of archaeological practice, as the activities that go into their production also reveal important social interactions and learning that place in the field. Notably, of the many people who may work at a site (e.g., academics, students, resident volunteers), those who engage in drawing activities are making statements of their identity as (or intent to become) an archaeologist (Bateman 2006: 76). In this fashion, the production of archaeological “facts” is intertwined with the accumulation of the skills and social relations that allow one to become recognized as an archaeologist (e.g., Van Reybrouck and Jacobs 2006).

At Suwahara, making this map by hand was unnecessary, as the total station and software we used was perfectly suited to map it out with far higher accuracy. Even so, Kobayashi insisted “the plane table survey is foundational” (*heiban wa kihon dakara*) and instructed his students how to make it. Here, the recording of PJ5 was intertwined with the desires of both Kobayashi and his students to become capable archaeologists. The students toiled in the hot sun to make this map, with one standing for hours in the direct sunlight and the other maneuvering from spot to spot with the survey staff and tape measure. As they were finishing up the map, Ertl asked them to explain how it was made. For both, it was their first time doing a plane table survey, but after just a day and a half they were both able to clearly teach its basics. Ertl noticed the student’s neck was severely sunburnt. The student paused to touch it and shrugged saying that he had been so focused he barely noticed.

In the end, Kobayashi created a record for PJ5, forming it into a shape that could be documented through photographic images and a hand drawn map. Observing this process, Ertl and Yoshida recalled on how site reports with Jomon pit dwellings invariably include overhead maps, section drawings, and neat

photographs of the excavated pit feature (Ertl, Yoshida, and Ikari 2022). Kobayashi's apparent fabrication of the walls and floor of PJ5 made a "visible" feature out of remains that stubbornly refused to reveal themselves. The only certainties of PJ5 were the hearthstones and the surface-level Sori 5 type pottery. The rest was an artifice, made out of residues of what had been (or should have been) there, Kobayashi's embodied experiences working on Jomon pit dwellings, and the disciplinary expectations of what a proper record should be. It is also a pretension, in that it is an assertion of something that should be (or have been) there, even though it refuses to reveal itself without intentional manipulation.

## Charismatic Artifacts

**Today's best moment: breaking a museum piece**

On 13 September 2022, with the excavation reaching its end, we experienced our most dramatic episode. It was documented by Yoshida Yasuyuki in a 17-second video that was sent to John Ertl with the caption "Today's best moment."

The video begins with Ertl holding a large decorative piece of pottery. He is inside the main trench (ST3) and leans toward an orange basket (*mi*) (Figure 14). Ertl extends his arms toward the basket and calls out, "Hey Kuga," to one of the students from Morioka University. Kuga quickly comes into frame and kneels down to receive the pot. Outside of view, a student can be heard saying, "Be careful, be careful," as Ertl places the pot into the basket. Kuga pulls the basket toward him a bit, at which Ertl orders (in a mix of English and Japanese) "Just leave it there, *sono mama de ii* (like that is fine)." Ertl reaches over to pick up a lens blower and begins to give instructions on how to clean the pot.

As Ertl does this, Kuga picks up a brush and gently pulls on the pot to get a better look at it. Doing so, the pot instantaneously falls to pieces, eliciting gasps from everyone watching. Disheartened and speechless, Kuga drops his brush and shrugs with his hands as to say, "What happened?" (Figure 15). Seeing this, Ertl

Figure 14: A still from the beginning of the video with John Ertl carefully moving the *suienmon* handle toward the orange basket. (13 September 2022)

Figure 15: A still near the end of the video showing Kuga with his hands in the air after the pot fell to pieces. (13 September 2022)

quickly attempts to console Kuga (as well as himself), “it’s okay, *daijōbu*, *daijōbu* (it’s okay).” Here the short video ends.

In the immediate aftermath, many stopped what they were doing and helped

Figure 16: Ertl, Kuga, and other students sift through dirt for broken pieces of the *suienmon* handle removed from the first southeast slide (Slide SE1) from subtrench 3 (ST3) at Suwahara site. (13 September 2023)

sift through the dirt in search of the broken pieces (Figure 16). Students carefully cleaned, counted, and photographed the now eighteen broken pieces. They gave each an individual code (2260_1 to _18), wrapped them in tissue paper, and put them in individual plastic bags. They gathered the pieces into one larger bag and saved the dirt that was inside the pot when it broke. There was some discussion about who would take it to be processed, and Ertl said that he would take it to the Hokuto Archaeology Center. There it was cleaned, 3D scans were made of each individual piece, and the pieces were glued back together by a specialist to prevent further damage. All of this work was completed by early November, and pot has since remained at the center (as of mid-March 2023).

**A museum piece… someday**

Undeniably, some Jomon artifacts are awe-inspiring and justifiably receive more attention than others. Books on the Jomon period often include images of magnificent pottery on the cover (Figure 17). Even the Suwahara site report


Figure 17: Examples of books with Jomon pottery and figurines depicted on the covers. From the right is a flame style (*kaenmon*) pot featured on Junko Habu's (2004) *Ancient Jomon of Japan* (despite the fact that her book does not directly introduce such pottery). Next is the report for Idojiri site (Fujimori 1965) depicting a prefectural treasure (*kenpō*) *suienmon* pot. Next is the cover of the Suwahara site report (2018) followed by the cover of Jomon-zine, a "free paper" published periodically by Mochizuki Akihide.

published by Showa Women's University (2018) depicts a pot on the back. Pots are by no means the only remains to appear,(7) but whatever is selected is generally considered the most noteworthy, representative, or important for understanding a site. In all likelihood, our broken pot will become the "cover model" for our future site report.

The pot in question here is a handle (*totte*) from a *suienmon* style vessel (Figures 18 and 19). These kinds of stylistic pots are mostly found in the Central Highlands region (Yamanashi and Nagano) and are attributed to the Sori 1 phase of the Middle Jomon period. *Suienmon* pottery is among the most recognizable style of Jomon pottery, second to the *kaenmon* (flame) pottery found further north in

(7) One is equally likely to find pictures of Jomon *dogū* (clay figurines), shell middens, lacquerware, or even images of reconstructed buildings, museum representations, or the archaeology team at work.


Figures 18 & 19: Different angles of the *suienmon* pot unearthed at Suwahara site during the 2022 excavation season. Following excavation, the pot was quickly cleaned, and 3D scans were made before it was temporarily glued back together. (4 November 2022)

Niigata Prefecture.

A few days after excavations, Sano Takashi looked over this handle at the Hokuto City Archaeology Center. He called it "interesting" (*omoshiroi*), noting the motifs and modes of manufacture (and seemingly disinterested its aesthetic qualities). He specifically pointed to the depth and angle of the incised lines and the repeating impressions in the curved lines. He explained these are commonly found in the previous Idojiri phase and surmised that this pot is a transitional piece between the Idojiri and Sori phases. Realizing this, Sano made copies of a couple of articles on *suienmon* pottery for our reference (Imafuku 2017, 2018).

A few weeks later, Sano gave a guided tour of a Jomon exhibition at the Yamanashi Museum of Art. The exhibition featured many original Jomon remains borrowed from collections across Yamanashi prefecture, including many *suienmon* pots. After the tour, Ertl asked Sano if our pot from Suwahara might eventually make it into a museum display. Sano quickly answered, "Someday" (*izure narimasu yo*), continuing with a hint of cynicism, "*Suienmon* pots are popular now."

Sano's "someday" was a loaded statement. On the surface, he was acknowledging that museums will likely ask to display this piece because of its

unique design. It was also a comment that work still needs to be done before it is ready for display. For one, we need to finish excavations to find any additional parts of the pot and, later on, the pot will need to undergo an extensive restoration to become display ready. More importantly, however, Sano's statement included a warning that we should not be distracted by this pot. Despite its appeal, this broken *suienmon* handle is no more important for our project than any other potsherd.[8] The work needed to craft this into a museum piece should be done "someday," but not at the expense of our current research.

**The boon and bane of charismatic artifacts**

Archaeologists in Japan tend to concentrate on certain types of remains, which vary by the prehistoric era they specialize in (Mizoguchi 2002). Paleolithic archaeologists inevitably specialize in lithics. For the Yayoi period, one commonly examines agricultural remains and bronze artifacts. And with the Kofun period, tumuli and burial goods. Similarly, Jomon specialists tend to focus on pottery. Unsurprisingly, on-site museum exhibitions curated by these archaeologists prominently display Paleolithic stone tools, Jomon pots, Yayoi bronze bells (*dōtaku*), and Kofun terracotta sculptures (*haniwa*).

While there are no imperatives for Jomon archaeologists to specialize in pottery, this trend reveals important biases in archaeological research programs.[9]

---

(8) Explained in our previous excavation report (Ertl, Yoshida, and Ikari 2022), we are collecting three dimensional coordinates for the location of each pottery sherd found inside and around the pit dwelling (PJ1). Our hope is to see if we can find a layer of pottery (out of chronological order) that might suggest the roofs were covered with dirt mixed with pottery remains.

(9) This blanket statement is not meant to reflect the reality of research specializations among Japanese archaeologists. That said, however, during our research we have come across several archaeologists who have confirmed this common perception. For example, interviewing Kunugi Tsukasa, he explained that his focus on Jomon period lithics, rather than pottery, kept him in the periphery (*aryū*) of Jomon scholarship. In contrast,

This issue has been described by Geoffrey Bowker (2000), who introduces the impacts of "charismatic" species in an article on the classification of biological life. Charismatic species, he explains, receive much attention in both academia and in the public, which leads to other species that remain unexamined or unnoticed. Bowker notes:

> Certain species are more likely to get attention from policymakers and the public than others – many more care about the fate of the cuddly panda, the fierce tiger or indeed the frequently drunk and scratchy koala bear, than about the fate of a given species of seaweed (or sea vegetable, to use the more recent, kinder, popular coinage). And this attention has very direct consequences. On the one hand, scientists are more likely to get funding for studying and working out ways of protecting these charismatic species, rather than others; and on the other hand, people are more likely to become scientists with a view to studying such entities – another feedback loop which skews our knowledge of the world. (Bowker 2000: 655)

Similar feedback loops can be seen in Japanese archaeology.[10] For example, Jomon pottery is considered a key resource to learn the timespan for when a Jomon site was occupied. Their usefulness translates into museum displays of this pottery that may highlight transitions at the site over time. At the same time, public interest in Jomon pottery, especially the more ornate and magnificent examples, incentivizes

---

Kobayashi's statement during excavations at Suwahara that "maybe we need to pay more attention to the stones" (and his students later saying "Kobayashi-sensei is looking at stones!?) highlighted the fact that stone remains have not received the same attention as pottery.

[10] A similar phenomenon has been documented in Japanese studies and other academic fields (e.g., Hansen 2015; Harootunian 2000).

funding to repair and replicate them. One problem with this loop, however, is that the public is usually interested in the emotive or artistic aspects of the pottery, not only their informational value. This leads to skewed displays like the above-mentioned Yamanashi Museum of Art, which featured many Sori 1 phase *suienmon* pots, but did not, for example, contain any examples of the less charismatic Sori 5 phase herringbone pots. At the extremes, some Jomon pots become national treasures and are widely publicized and studied, while others are forgotten in boxes in the dark edges of storage rooms.

A similar loop occurs with specialization in pottery typology. Kobayashi Ken'ichi is renowned for his work on the classification and dating of Jomon pottery. For many years he was engaged in a project that sought to provide accelerator mass spectrometry (carbon 14) dates of charred remains found on pottery. His success in this research, combined with the general appeal of Jomon pottery, further translates into the propensity for his students to research Jomon pottery. Rightly, this is a virtuous cycle that reflects how ambitious research is commended and contributes to the training of the next generations of scholars.

Returning to Sano's "someday," his comment hints at a dark side to the charismatic influences of Jomon pottery. Due to its popularity, archaeologists are compelled to prepare specimens/artworks for display. By contributing to museum exhibitions, they inadvertently reinforce the perception that the work of archaeology is, above all, the collection and protection of buried artifacts. The result is that "non-charismatic" remains (and research programs) remain invisible, as they fail to be noticed, classified, or regarded significant (Bowker 2000: 659).

As for our *suienmon* handle, its removal from the ground and the gasps and reactions after it crumbled from the slightest touch, provides an amusing anecdote on how one may be swayed by charismatic artifacts. Our preoccupation with this pot occurred even though our research program should treat every pottery sherd equally – where measuring the location for every piece of pottery provides picture

of deposition. Our interest in this piece had a significant impact on excavations, both before and after its removal. In fact, from its initial discovery over a year earlier, digging along subtrench 3 was conducted with an awareness and concern for this pot: influencing where and how we stand, shouting words of caution to each other, and so forth. Indeed, it was our desire to see this pot in its entirety before the 2022 excavations ended that led us to pull it out of the ground when we did.

Certainly, we understand that our *suienmon* handle is unique and will make a fine museum piece "someday." And for that reason, it does require special attention. So much so, however, that one begins to wonder who actually directs the course of our excavation: do we or do the remains we encounter (cf. Latour 1987)?

## Conclusion, or envisioning an endpoint

The craftwork involved in archaeological practice is equally mundane and routine as it is individual and unpredictable. In this report, we have concentrated on the concepts of embodiment, artifice, and charisma through three fieldwork anecdotes. In each of these examples, we have tried to show how archaeologists engage with sites and artifacts to make them meaningful. Our focus has been on the learning and application of different skills and devices that are core to archaeological practice. Much of these activities are repetitive: washing pottery, filling bags of sand, punching numbers into a database, making measurements with the total station, or simply taking trowel to earth. No matter how simple, any of these activities is foreign and uncomfortable at first, especially as one struggles to intertwine the practical aspects of archaeology with the conceptual ones (e.g., what exactly should I be doing and why is it important?).

In this report, much of our focus has been on Kobayashi Ken'ichi and his adeptness and comfort at which he engages in various archaeological practices (e.g., as a master craftsman). Watching him work, it was unclear how he came up with the color code 10YR 3/4 just by scraping, probing, and rubbing dirt from the

section wall between his fingers. When he crafted PJ5 out of seemingly non-existent remains, we again shook our heads again in awe, asking ourselves how he could see a pit outline and have the confidence to etch it out with his trowel.

In both cases, it seems that Kobayashi's confidence stems from his ability to envision or imagine an "end point" to both the excavation and the publication of a site report. Picking out a color code and carving out a pit floor are important activities that require experience and skill to do well. But they are also essential, as they allow one stage of the excavation to finish as we move it toward its inevitable completion.

By contrast, part of our confusion and hesitation when watching Kobayashi was a symptom of our inexperience in this regard. Indeed, our feelings at the end of the first two years of excavation (2019 and 2021) were ones of opening horizons, where the directions of the excavation seemed unpredictable and never ending. Now as we move into the fifth year of our project, we should be winding things down. By our original plan, we should be finished at Suwahara, have processed remains and completed lab analyses, designed a pit dwelling for Umenoki site park, and begin building it from now. The project will continue for at least the next several years and it is still likely to take us in many unforeseen directions. But as Sano warned us in regard to the charismatic Jomon pot, we should not lose sight of the eventual conclusion to excavations at Suwahara.

**Acknowledgements**

This research was supported by Japan Society for the Promotion of Science Grant-in-Aid for Scientific Research B (19H01394): Ethnography of Archaeological Excavation, Laboratory Analysis, and Site Development, and Keio University Matsunaga Memorial Fund for the Research of Cultural Assets (Principal Investigator, John Ertl). Further funding was provided by Japan Society for the Promotion of Science Grant-in-Aid for Scientific Research C (22K01015):

Prehistoric Reconstructions: Creating People, Architecture, and Landscapes, and Morioka University Academic Research Grant: Creating post-handwritten-drawings-oriented archaeological data at the Middle Jomon Suwahara site (Principal Investigator, Yasuyuki Yoshida). We thank Sano Takashi and the many individuals at Hokuto City Archaeology Center and the Kayagatake History and Culture Institute whose assistance has made this project possible. We also extend our appreciation to Kuroda Masayuki and the Furusato Club volunteers who allowed us to join their reconstruction activities at Umenoki site throughout the year.

**Bibliography**

Bateman, Jonathan. 2006. Pictures, Ideas, and Things: The Production and Currency of Archaeological Images, in Matt Edgeworth (ed.) *Ethnographies of Archaeological Practice: Cultural Encounters, Material Transformations*: 33–44. Lanham: AltaMira Press.

Bourdieu, Pierre. 1977. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.

Bowker, Geoffrey C. 2000. Biodiversity Datadiversity. *Social Studies of Science* 30(5): 643–683.

Ertl, John. 2021. Survey of Prehistoric and Ancient Period Architectural Reconstructions in Japan. *Japanese Journal of Archaeology* 8: 157–199.

Ertl, John, and Yasuyuki Yoshida. 2020. Archaeological Craftwork: Ethnography of Archaeology at Suwahara Site, Hokuto City, Yamanashi 2019. *The Hiyoshi Review of the Humanities* 35: 135–170.

Ertl, John, and Yasuyuki Yoshida. 2021. Archaeological Craftwork 2020: Ethnography of Archaeology at Suwahara Site, Hokuto City, Yamanashi 2020. *The Hiyoshi Review of the Humanities* 36: 37–76.

Ertl, John, Yasuyuki Yoshida, and Yoko Ikari. 2022. Archaeological Craftwork 2021: Ethnography of Archaeology at Suwahara Site, Hokuto City, Yamanashi 2021. *The Hiyoshi Review of the Humanities* 37: 1–35.

Ertl, John, and Yasuyuki Yoshida. 2023. Survey of the Present Conditions of Prehistoric Architectural Reconstructions in Hokuriku and Tokai Regions in Japan. *The Keio University Hiyoshi Review of Social Sciences* 33: 21–46.

Fujimori Eiichi, ed. 1965. *Idojiri site* (*Idojiri-iseki*). Tokyo: Chuokouronbijyutsushuppan.

Goodwin, Charles. 1994. Professional Vision. *American Anthropologist* 96(3): 606–633.

Habu, Junko. 2004. *Ancient Jomon of Japan*. Cambridge: Cambridge University Press.

Hall, Jonathan M. 2014. *Artifact & Artifice: Classical Archaeology and the Ancient Historian*. Chicago: University of Chicago Press.

Hansen, Paul. 2015. The Anthropology of Japan's Social Saga: The Manufacture of Consent through Descent, Dissent, and the Decent, in John Ertl, John Mock, John McCreery, and Gregory Poole (ed.) *Reframing Diversity in the Anthropology of Japan*: 213–245. Kanazawa: Center for Cultural Resource Studies Kanazawa University.

Harootunian, Harry. 2000. *History's Disquiet: Modernity, Cultural Practice, and the Question of Everyday Life*. New York: Columbia University Press.

Hokuto City Board of Education. 2008. *Hokuto City Buried Cultural Properties Survey Report 26: Umenoki Site 7* (*Hokuto-shi maizō bunkazai chōsa hōkoku 26: Umenoki iseki 7*) Hokuto City: Hokuto City Board of Education.

Hokuto City Board of Education. 2014. *Hokuto City Buried Cultural Properties Survey Report 39: Suwahara Site, Yashiroshikan Ruins* (*Hokuto-shi maizō bunkazai chōsa hōkoku 39: Suwahara iseki, Yashiroshikan seki*). Hokuto City: Hokuto City Board of Education.

Ichinohe Town Board of Education, ed. 2017. Goshono Site Environmental Improvement Project Report 3 (*Goshono iseki kankyō seibi jigyō hōkoku-sho 3*). Ichinohe: Ichinohe Town Board of Education.

Imafuku Rikei. 2017. The development of Sori Suien type pottery in the Middle Jomon period (*Sori-shiki doki ni okeru suien-totte-doki no seiritsu to tenkai*). *Bulletin of Archaeological Museum & Archaeological Center of Yamanashi Prefecture* 33: 13–24.

Imafuku Rikei. 2018. The patterns structure of Sori Suien type pottery in the Middle Jomon period (*Suien-totte doki no monyō kōzō*). *Bulletin of Archaeological Museum & Archaeological Center of Yamanashi Prefecture* 34: 1–16.

Kobayashi Ken'ichi. 2019. *The Study Course of Calibrated Radiocarbon Dates of the Jomon Period*. (*Jōmon jidai no jitsunendai kōza*). Tokyo: Doseisha.

Latour, Bruno. 1987. *Science in Action: How to Follow Scientists and Engineers Through Society*. Milton Keynes: Open University Press.

Merleau-Ponty, Maurice. 2002. *Phenomenology of Perception (second edition)*. London: Routledge.

Mizoguchi, Koji. 2002. *An Archaeological History of Japan: 30,000 B.C. to A.D. 700*. Philadelphia: University of Pennsylvania Press.

Shanks, Michael, and Randall H. McGuire. 1996. The Craft of Archaeology. *American Antiquity* 61(1): 75–88.

Showa Women's University, Department of History and Culture, Faculty of Humanities and Culture, ed. 2018. *The Excavation Report of Suwahara-Site II Akeno-machi Hokuto-City, Yamanashi-Pref., Japan 2012–2016 Year Excavation Area* (*Suwahara-iseki hakkutsu hōkokusho II: 2012–2016 nendo chōsa chiku*). Tokyo: Showa Women's University, Department of History and Culture, Faculty of Humanities and Culture.

Unno, Satoshi. 2017. *Reconstructing Ancient Architecture: Bridging the Past and Present* (*Ko-kenchiku wo fukugen suru: kako to genzai no kakehashi*). Tokyo: Yoshikawa Kōbunkan.

Van Reybrouck, David, and Dirk Jacobs. 2006. The Mutual Constitution of Natural and Social Identities During Archaeological Fieldwork, in Matt Edgeworth (ed.) *Ethnographies of Archaeological Practice: Cultural Encounters, Material Transformations*: 33–44. Lanham: AltaMira Press.