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# Yoshinogari

## A Yayoi Settlement in Northern Kyushu

MARK HUDSON & GINA L. BARNES

THE Yoshinogari 吉野ヶ里 site in Saga prefecture, Kyushu, first attracted national attention in the spring of 1989 at the end of three years of excavation work. During the final stages of the excavations there was almost daily local newspaper and television coverage, while scores of books, magazine articles, glossy pamphlets, and television documentaries appeared. Perhaps most spectacular was the rate at which visitors started to descend on the site; in a period of about six months in 1989 Yoshinogari attracted some 1.7 million people.<sup>1</sup> Although such immense popular interest in archaeological discoveries is gratifying, it has been based, at least to some extent, on a misunderstanding over the significance and identity of the site.

The present article, based primarily on the preliminary report published by Saga Prefectural Board of Education in February 1990,<sup>2</sup> offers a descriptive outline of the major finds at Yoshinogari. The implications of the site for future work in Yayoi social organization are briefly discussed, but no detailed original research is presented. Our aim is rather to provide an introduction to what is without doubt one of the most important archaeological sites in East Asia.

### *Location and Excavation Work*

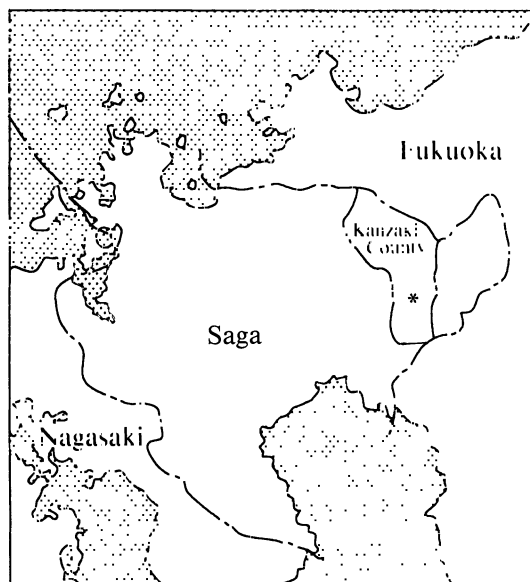
Yoshinogari lies on a raised levee 44 km from the Ariake Sea to the west and 60 km to Fukuoka Bay in the north. Since the location is too high for wet rice agriculture, Yoshinogari was spared the terracing and plowing of paddy fields that would have destroyed the site at a lower level. Yoshinogari Hill is a low

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<sup>1</sup> Takashima Chūhei 高島忠平, 'Yoshinogari Iseki no Gaiyō' 吉野ヶ里遺跡の概要, in *Wakoku Tairan to Yoshinogari* 倭国大乱と吉野ヶ里, Yamakawa, 1990, p. 4. According to *Asahi Shimbun*, 1 December 1990, 3.4 million

people have visited the site since it was opened to the public.

<sup>2</sup> Saga-ken Kyōiku Iinkai 佐賀県教育委員会, ed., *Yoshinogari Iseki Gaihō* 吉野ヶ里遺跡概報, Yoshikawa Kōbunkan, 1990. Unless otherwise noted, all details of the excavation are from this report (*Gaihō*). This is only a preliminary report and details may change as further study is carried out.



1. The location of Yoshinogari. \*=excavation site.

ridge some 600 m. wide, stretching south for around 3 km from the foot of the Sefuri Mountains into the Saga Plain. The site is located on the southern end of this ridge in Kanzaki County. Although it is now some distance from the sea, Yoshinogari is situated on the right bank of the Tade River, a tributary of the Chikugo River that flows into the Ariake Sea. Sea levels may have been slightly higher in this area during the Yayoi period,<sup>3</sup> and maritime access was probably an important factor in Yoshinogari's development.

Full-scale excavations were begun at Yoshinogari in 1986, but the site had been known to the archaeological community before the Pacific War. In 1934 two articles dealing directly with Yoshinogari appeared in national journals.<sup>4</sup> But excavation work was not carried out until 1982, when around 400 test trenches were dug in preparation for a proposed factory housing development. Jar burials and pit buildings were immediately discovered and cultural remains were determined to cover 36 hectares out of the planned development area of 65 hectares. In view of the obvious importance of the site, Saga Prefectural Board of Education decided that 6 hectares of the site would be left untouched, while the remaining 30 hectares would be excavated between 1986 and 1989.<sup>5</sup>

<sup>3</sup> Nishitani Tadashi 西谷正, *Yoshinogari*, special issue of *Scenes*, Kyūshū Chihō Kensetsukyoku, Kensetsushō, Fukuoka, 1989, p. 2.

<sup>4</sup> Shichida Tadashi 七田忠志, 'Sono Ato no Saga-ken Senjōgadani Iseki to Yoshinogari Iseki ni tsuite' 其の後の佐賀県戦場ヶ谷遺跡と吉野ヶ里遺跡に就いて, in *Shizengaku Zasshi* 史前

学雑誌, 6:4 (1934), pp. 223-34; Mitsutomo Kunigorō 三友国五郎, 'Saga-ken ni okeru Awasegame Isekichi' 佐賀県に於ける合甕遺跡地, in *Kōkogaku Zasshi* 考古学雑誌, 24:5 (1934), pp. 321-36. For a history of research on the site, see Shichida Tadaaki 七田忠昭, 'Yoshinogari Iseki Kenkyū no Ayumi' 吉野ヶ里遺跡研究のあゆみ, in *Umi no Mukō kara Mita Yoshino-*

Most of 1986 was taken investigating more than 500 Yayoi jar burials; in the following year a government road and settlement consisting of more than 250 buildings of the Nara period were excavated. It was only in the third year that work on the moated Yayoi settlement was begun. Some 350 buildings and 2,000 jar burials were dug, together with the village ditch and a large Middle Yayoi mound-burial (*funkyūbo* 墳丘墓). During this final year around 300 Nara-Heian buildings, 150 wells, and other remains from the Palaeolithic, Jōmon, Kofun, and medieval periods were also investigated.<sup>6</sup> Since April 1989 more than 140 test trenches have been dug to confirm the boundaries of the site.

As can be seen in Figure 2, the area of excavation was a long corridor of land, stretching north for some 2.5 km from where the JR Nagasaki Line crosses the Tade River. This area encompasses eighteen separate excavation units that are known collectively as Yoshinogari. Although the names for these units are rather cumbersome, they are retained here for easy cross-reference with Japanese publications.

The system is based on nine *chiku* 地区, six of which are further subdivided into *ku* 区 designated with Roman numerals. The *chiku* may be best understood as sub-sites, although they are often referred to here simply as sites, with the exception of the Yoshinogari sub-site. *Ku* is translated here as 'area'. From north to south the excavation sites are as follows:

1. Shiwaya roku-no-tsubo (B) 志波屋六の坪(乙)
2. Shiwaya go-no-tsubo
3. Shiwaya roku-no-tsubo (A)
4. Shiwaya san-no-tsubo (A)
5. Shiwaya yon-no-tsubo
6. Shiwaya san-no-tsubo (B)
- 7a-c. Yoshinogari Hill Areas I, IV, & V
- 8a-d. Yoshinogari Areas I-IV
- 9a-b. Yoshinogari Hill Areas II & III.
10. Yoshinogari Area V
11. Tade-Nihon-Kuroki 田手二本黒木 Area I
12. Tade-Nihon-Kuroki Area II

### *Yayoi Yoshinogari*

The present article deals primarily with the discoveries belonging to the Yayoi period, for our understanding of Yayoi life has been substantially changed by the excavations. For the past forty years the best-known Yayoi site has been Toro in Shizuoka prefecture, excavated just after the Pacific War; the phenomenal preservation of its paddies and wooden tools provided the clearest

*gari Iseki* 海のむこうから見た吉野ヶ里遺跡, Shakai Shisōsha, 1991, pp. 69–77.

<sup>5</sup> Shichida Tadaaki, '*Bēru wo Nuida Maboroshi no Daiiseki*' ベールをぬいた幻の大

遺跡, in *Yoshinogari: Yamataikoku ga Miete Kita* [YY] 吉野ヶ里: 邪馬台国がみえてきた, Asahi Shimbunsha, 1989, pp. 61–62.

<sup>6</sup> Shichida, in YY, pp. 61–62.

picture of early rice farming, not only in Japan but in East Asia as a whole.<sup>7</sup> Toro, however, was a small Late Yayoi agricultural village, located well away from contemporary political centers. Late Yayoi Yoshinogari, on the other hand, was a complex, wealthy settlement with social ranking, and was possibly the center of a chiefdom-type polity.

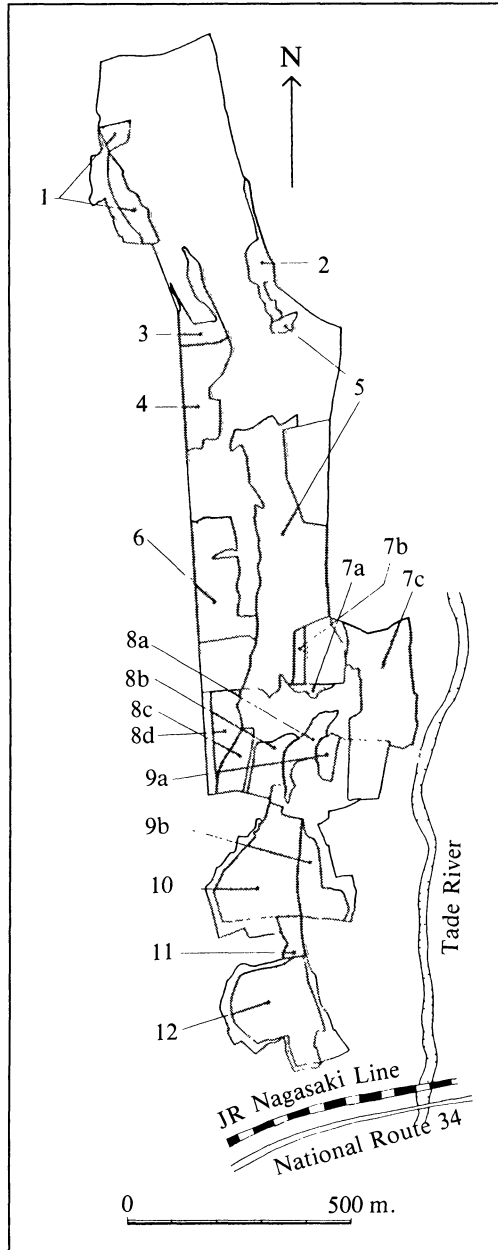
As several storage pits dating from the beginning of the Early Yayoi have been discovered at Shiwaya yon-no-tsubo, Yoshinogari seems to have been settled throughout the whole of the Yayoi period. Pit buildings and storage pits dated from the first half of the Early to the beginning of the Middle Yayoi have been found at many locations across the ridge and there were probably several villages dating to this phase. At Shiwaya san-no-tsubo (B) burials from the same period were also excavated, and the relationship between settlement and cemetery is particularly clear. The village is centered on the highest point of the hill and consists of 131 pit buildings of about 4 m. in diameter. One is square with rounded corners, but the others are circular in plan. From the stratigraphy around ten buildings seem to have been in use at any one time. Some twenty pits were discovered surrounding these buildings. Identified as storage pits, they are often rectangular in shape with dimensions of about 2 × 1.5 m. To the south of the houses and pits lay a cemetery of some thirty jar burials on the slope of the ridge. A similar village layout was uncovered at Shiwaya san-no-tsubo (A), and this appears to have been the typical arrangement for the Early and early-Middle Yayoi.

Although quite a few pit buildings from the second half of the Middle Yayoi have been found all over the ridge, it is difficult to arrange them into any definite settlement plan. In contrast, the picture in the Late Yayoi is much clearer. The moated villages at Yoshinogari Hill and the Yoshinogari sub-site will be dealt with below, but here we briefly describe the non-moated settlement at Shiwaya roku-no-tsubo (A). Almost all the 103 pit buildings discovered at this locality are Late Yayoi. Most of them are rectangular in shape with dimensions of 5–6 by 3–4 m. Many have low platforms along one or both of the short ends, described as ‘bed-like features’ by the excavators. The pit buildings are on the summit of the ridge. Stretching over to the eastern edge of the hill are concentrations of post-holes presumed to be the remains of more than ten raised-floor storehouses. Storage pits were also found and both types of storage facility are believed to have been in use at the same time. Since these facilities are located outside the moat, it is not clear whether they belonged to the chief or to the community at large. From the edge of the slope down into the valley various wells were excavated. A remarkably detailed view of a Late Yayoi settlement unit is thus provided.<sup>8</sup>

<sup>7</sup> Jacquetta Hawkes, ‘Toro, Japan’, in Jacquetta Hawkes, ed., *Atlas of Ancient Archaeology*, Heinemann, London, 1974, p. 222. See also Gina L. Barnes, ‘Toro’, in K.

Branigan, ed., *Atlas of Archaeology*, MacDonald, London, 1982, pp. 198–201.

<sup>8</sup> *Gaihō*, pp. 54–57.



From *Gaihō*, p. 48.

## 2. Excavation units at Yoshinogari.

### *The Moated Settlements*

The center of the Yoshinogari site, both in the past and in terms of present-day archaeological significance, lies in the large Middle and Late Yayoi moated settlement, covering an area of more than 25 hectares. The only other Yayoi moated ‘village’ that comes anywhere near this size is the Karako-Kagi 唐古・鍵 site in Nara prefecture, which is presumed to have similar dimensions. The second largest moated Yayoi site in Kyushu is Itazuke 板付 in Fukuoka, which occupies about 6.3 hectares.<sup>9</sup>

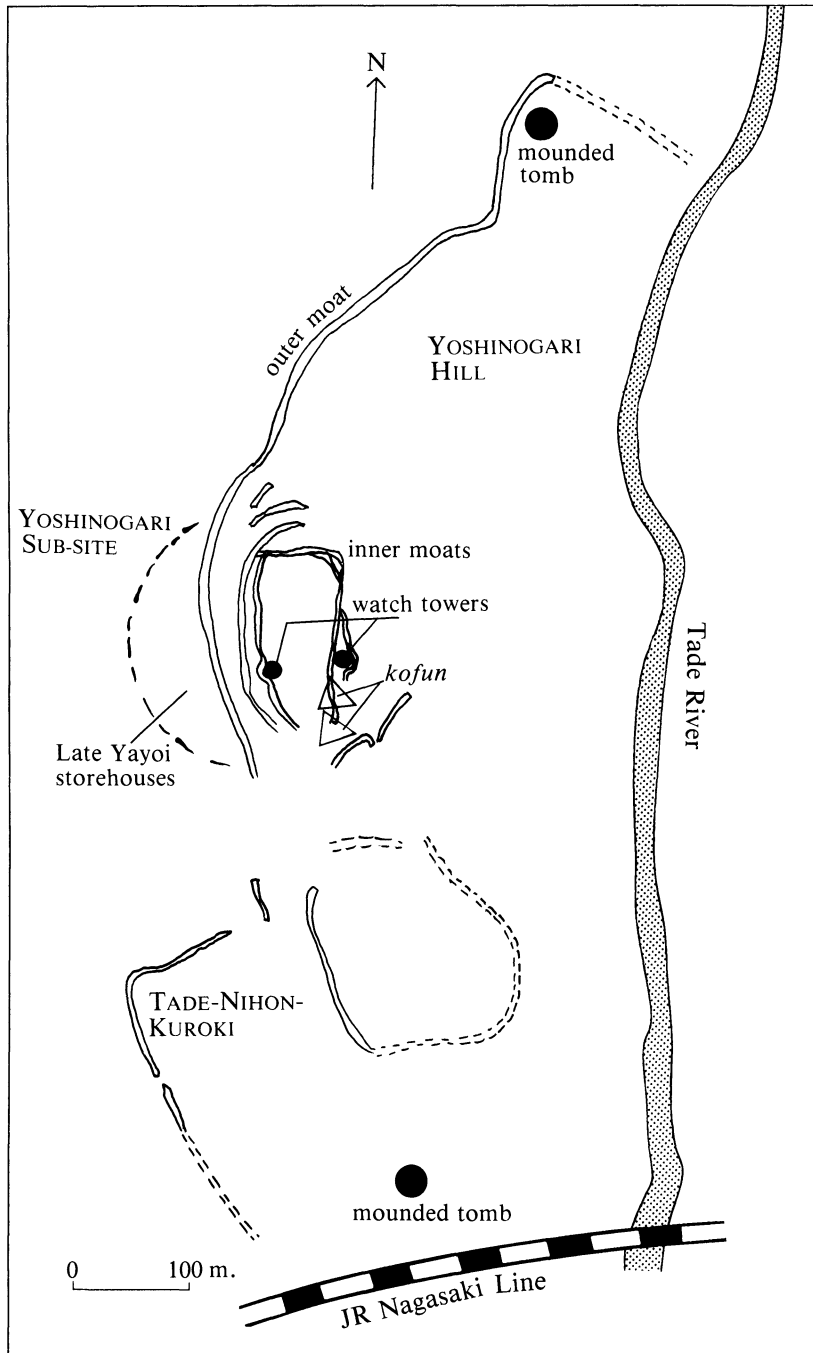
There was a moated village at Yoshinogari from as early as the first half of the Early Yayoi. This village, however, is known only from its moat, as the actual settlement remains appear to lie outside the area of excavation. The moat was excavated to a length of some 140 m. along the southern edge of the hill at Tade-Nihon-Kuroki Area II. It has a V-shaped cross-section, a width of 2–3 m., and a depth of about 2 m. Many artifacts, including bone arrowheads, worked deer antlers, animal bones, and shells, were found in the moat and date from the first half of the Early to the beginning of the Middle Yayoi.

The exact area of the moated village in every phase is still not well understood, but it is clear that its size increased considerably in the Middle Yayoi. In north Tade-Nihon-Kuroki a ditch, 5 m. wide, dates to the Early to mid-Middle Yayoi. In the south of the same area a V-shaped ditch, 2–4 m. wide, contained Middle- and Late-phase pottery. Two entrances straddled this moat and Middle Yayoi storage pits were found inside. This ditch is believed to be related to the moat discovered in Areas II and V of Yoshinogari Hill and Areas I and V of the Yoshinogari sub-site. In well-preserved places this moat is 7 m. wide and 3 m. deep, and may have been even more substantial in antiquity. It dates from the early Late Yayoi. This is slightly later than the Tade-Nihon-Kuroki ditch mentioned above, but the two are considered to have been connected from their relative positions.<sup>10</sup> Including the Tade section, the moat was excavated for a length of more than one kilometer along the western edge of the hill.

Within this huge moat, settlement was mainly concentrated in the south of the enclosed Area III of Yoshinogari Hill and Areas I and V of Yoshinogari sub-site. Burials were found mainly in the north in Areas II and V of Yoshinogari Hill. Many artifacts were found in the moat, especially in the sections near the settlement remains. While this outer moat (*sotobori* 外堀) runs along the edge of the hill, a further inner moat (*uchibori* 内堀) encircles the actual settlement on the ridge summit. Both early- and late-stage inner moats are known. The early one is 2–3 m. wide and encircles an area of 150 m. north-south and 70 m. east-west. The late phase is only 1–2 m. wide, but surrounds a slightly larger area of 150 m. north-south by 100 m. east-west. The inner moats have a flat-bottomed section in contrast to the V-shaped outer moat. Chrono-

<sup>9</sup> Oda Fujio 小田富士雄, ‘Yayoi Jidai no *Wakoku Tairan*, p. 80.  
Hokubu Kyūshū’ 弥生時代の北部九州, in

<sup>10</sup> *Gaihō*, pp. 57–58.



Redrawn from *Gaihō*, p. 21.

3. Simplified plan of excavated features in the southern section of Yoshinogari. Jar-burial cemeteries are not shown.



logically the late-phase inner moat continues through to the beginning of the Kofun period.

More than one hundred Middle Yayoi to final Late Yayoi pit buildings were found within the inner moat as well as between the inner and outer moats. Most belong to the Late Yayoi and are rectangular, many having the bed-like feature mentioned above. In the northwest of the inner-moat village there is an area surrounded by a コ-shaped ditch one meter in width. Some pit- and pillared-buildings have been found within this enclosure, and it is assumed that it represents some sort of elite precinct. Although there is often considerable variation in the size of Yayoi pit buildings, high-class objects are not consistently found in the larger buildings, and Yoshinogari may prove to be the first unambiguous example of an elite residence from a Yayoi site. Another enclosure in the western interior of the Late Yayoi phase site consisted of a rectangular ditch, 40–80 cm wide and 40 cm deep, possibly a fence-like structure demarcating a precinct that is speculated to be a temporary burial place (*mogariya* 殯屋).<sup>11</sup> This sort of structure was mentioned in *Wei zhi* 魏志, compiled in the late third century, but no archaeological example has yet been clearly identified.<sup>12</sup>

Studies of the soil in the inner moat suggest an earthen embankment on the outside. The central moated settlement seems to have been guarded also by watchtowers. Six outward-facing semi-circular projections were found on the inner moat, three on the early- and three on the late-phase sections. Within two of these projections were found six large postholes in a 2 × 3 arrangement. From their strategic position these constructions are identified as watchtowers; judging from the size of the posts, the towers may have been some 10 m. high.<sup>13</sup>

Following this identification at Yoshinogari, some previously unexplained Yayoi-period features at other sites have now been interpreted as towers. *Wei zhi* mentions that Himiko's palace was guarded by watchtowers (*louguan* 樓觀) and the Yoshinogari constructions may be an example of such towers. Interestingly, the large square holes needed for the supporting pillars of both these towers and the large storehouses to be discussed below are not found in the Kinai until the fifth or perhaps the fourth century A.D. Watchtowers as described in *Wei zhi* may have existed only in Kyushu during the Yayoi period.<sup>14</sup>

Before the Late Yayoi, most storage seems to have been in underground, flask-shaped pits some 2–3 m. deep. The Late phase, however, saw a switch to raised-floor storehouses. Although such buildings are known from a number

<sup>11</sup> Nishitani, p. 18.

<sup>12</sup> A translation of the section in *Wei zhi* relating to Japan is provided in L. Carrington Goodrich & Ryusaku Tsunoda, ed., *Japan in the Chinese Dynastic Histories*, Perkins, South Pasadena, 1951, pp. 8–16.

<sup>13</sup> Miyamoto Chōjirō 宮本長二郎, 'Yoshinogari: Takayukashiki Kenchiku no Fukugen' 吉

野ヶ里: 高床式建築の復元, in the catalogue of *Yoshinogari Iseki-ten* [=Catalogue] 吉野ヶ里遺跡展, Asahi Shimbunsha, Fukuoka, 1989, pp. 65–66.

<sup>14</sup> Mori Kōichi 森浩一, 'Yoshinogari Iseki ga Katarikakeru Mono' 吉野ヶ里遺跡が語りかけるもの, in YY, p. 142.



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4. A section through the outer moat, which in some places was 4 m. deep.

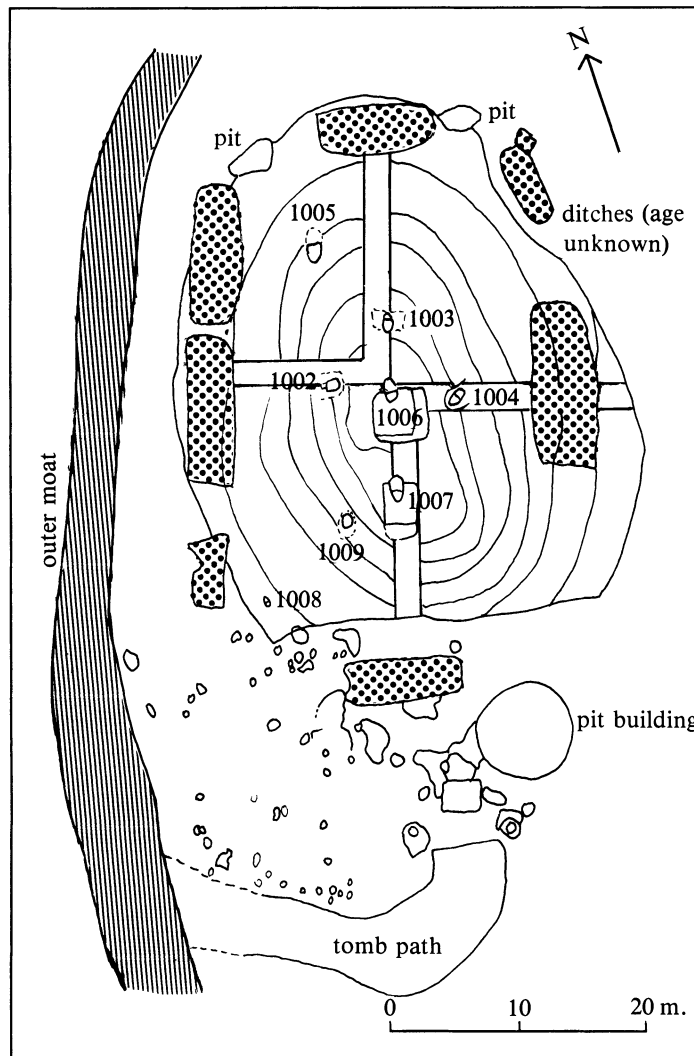
of Yayoi sites, the Yoshinogari examples are unusually large. Almost all have six supporting posts rather than the standard four. The larger examples are about  $5 \times 6.5$  m., three or four times the size of the storehouses at Toro. About thirty raised-floor storehouses have been discovered in a cluster beyond the outer moat at Yoshinogari Area V. There has been some discussion as to why the storehouses should have been located outside the village fortifications. Possibly essential foodstuffs were kept underground inside the village, with the raised-floor storehouses used for rice, weapons, and other items collected as trade and tribute.<sup>15</sup>

### *Burials*

A large mound-burial was discovered at the northern end of the site, just inside the outer moat at Yoshinogari Hill Area V. The mound is oval-shaped, some 40 m. long and 30 m. wide, with slight projections on the north and south sides. The present height is 2.5 m., but about 2 m. of soil was removed in the mid-1950s to make an orchard, so the original height was probably between four and five meters.<sup>16</sup> The mound was constructed in the first century B.C. using a stamped-earth technique that must have been advanced for its time. In

<sup>15</sup> Mori, pp. 142–44; Shichida Tadaaki, in YY, p. 160. It is estimated that 50–60 storehouses may have existed in this area.

<sup>16</sup> Takashima Chūhei, in *Saishin Yamatai-koku Ron* 最新邪馬台國論, Gakken, 1989, p. 18.



5. The Middle Yayoi mounded tomb at Yoshinogari Hill Area V.

the mound section alternate layers of clay and light brown loam were stamped hard on top of a 1.2 m. base of dark soil. Although wooden boards do not seem to have been used, this technique was probably derived from Chinese 'stamped-earth' (*hangtu* 夯土) technology and had previously not been known in Japan until the seventh and eighth centuries A.D.<sup>17</sup>

Eight jar burials were discovered in the mound and designated #1002–1009. Jar 1006 is the oldest; belonging to the Kunden 汲田 ceramic style of the early

<sup>17</sup> In China the term *banzhu* (J. *hanchiku*) 版築 is used for a particular stamped-earth technique using wooden boards; in Japan, *han-*

*chiku* is employed more loosely to mean any stamped-earth technique. Catalogue, p. 46.

Middle Yayoi, it was located at the center of the mound. Primary interment in large ceramic jars was a common burial method in northern Kyushu in the Yayoi period. Although mirrors, weapons, and other elite objects are sometimes found inside Kyushu jars, there are many thousands of jars that contain no grave goods, and it seems unlikely that the jar-burial custom per se was reserved for any sort of elite class.<sup>18</sup> The Yoshinogari mound, however, is located at the highest point in a final-Early to late-Middle Yayoi jar cemetery, and it was almost certainly the burial place of the highest-ranking persons within that cemetery.

In accordance with a widespread practice, the Yoshinogari mound burials consist of two large jars placed end-to-end. #1006 is especially large, with a total length of 2.5 m. and a width of 1.2 m. where the two rims meet, twice the size of average Kunden jars.<sup>19</sup> The pit dug for this burial is also large—more than 4 × 4 m. as compared with the standard pit of 1.5–2.0 m<sup>2</sup>. Both the inside and outside of #1006 were painted with an unidentified black substance. Inside were found a bronze dagger, a patch of vermillion, and five or six human teeth. The teeth may identify the occupant of the jar as an adult male, possibly in his thirties.<sup>20</sup> This appears to have been the mound's primary burial, and the status of the individual is likened to a chief.

Seven other jar burials radiate out from #1006 and most of these appear to date to the Suku 須玖 ceramic style that followed Kunden typologically. Jars of this phase date to around A.D. 1. Although bronze daggers were found also in jars 1005, 1007, and 1009, it is the contents of #1002 that have attracted the most attention. With the inside coated in vermillion, its grave goods consisted of 75 cylindrical glass beads and a rare bronze dagger and hilt cast in one piece.

The Yoshinogari daggers are all narrow-bladed and probably imported, although some early bronze production appears to have been carried out at the site. The imported daggers of the early Yayoi were made on the Korean peninsula but of a style ultimately derived from the Liaoning 遼寧 dagger of northeast China.<sup>21</sup>

The #1002 dagger has a total length of 44.8 cm and a wide, cumbersome-looking swordguard as can be seen in Figure 6. It is likely that the Yoshinogari example was cast in southwest Korea, probably in Ch'ungch'ongnam province, sometime in the period corresponding to the Western Han.<sup>22</sup>

<sup>18</sup> For a recent review of Yayoi burial practices, see Mark Hudson, 'From Toro to Yoshinogari: Changing Perspectives on Yayoi Period Archaeology', in Gina L. Barnes, ed., *Bibliographic Reviews of Far Eastern Archaeology*, Oxbow, Oxford, 1990, pp. 87–92.

<sup>19</sup> YY, p. 33.

<sup>20</sup> *Gekkan Bunkazai Hakkutsu Shutsudo Jōhō* [GB] 月刊文化財発掘出土情報, 1989:5, p. 17. This is the first time that skeletal remains

have been recovered from a Yayoi-mound burial. Kanaseki Hiroshi 金関恕, in GB, 1989:5, p. 39.

<sup>21</sup> Gina L. Barnes, 'Early Japanese Bronzeworking', in *Archaeology*, 34:3 (1981), pp. 38–46; Hudson, pp. 82–86.

<sup>22</sup> Catalogue, p. 50. Only three other Yayoi daggers are known with blade and hilt cast in one.



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6. Bronze dagger and glass beads *in situ* in jar burial 1002.

Together with the rare bronze dagger, jar burial 1002 also produced 75 light-blue cylindrical glass beads, 2–7 cm in length. From their relative position upon discovery, they may have originally formed a chevron-shaped headdress or crown;<sup>23</sup> alternatively they could have comprised a necklace or breastplate. Chemical analysis has shown that the beads were made of lead glass with a high barium oxide content (11.43%). The only ancient glass known to contain barium at this level is Chinese glass of the Warring States through Han periods, and it thus seems certain that the Yoshinogari beads were made with Chinese glass. The brilliant blue color is an indication of an advanced level of workmanship, but as such beads have been found only in one out of more than two thousand jar burials at Yoshinogari, it is unlikely that they were crafted at the site.<sup>24</sup> In April 1989 eight blue cylindrical glass beads were discovered in a tomb at Hapsongni 合松里 in Ch'ungch'ongnam province in Korea. Although their chemical composition is slightly different from that of the Yoshinogari examples, four of the Hapsongni examples have a strikingly similar light blue color.<sup>25</sup>

Features found surrounding the tomb have stimulated discussion as to what sort of rituals may have been associated with the burials. As can be seen in Figure 5, a series of discontinuous ditches surround the actual mound, although their age is not known and they may be medieval. The approach to the mound was clearly from the south, where a path has been delineated.

<sup>23</sup> Catalogue, p. 52.

<sup>24</sup> Yoshimizu Tsuneo 由水常雄, 'Yoshinogari no Garasu' 吉野ヶ里のガラス, in Cata-

logue, pp. 54–55.

<sup>25</sup> Catalogue, p. 111.

At the end of this path steps lead up to what was probably the entrance to the tomb. Ceremonial pottery (primarily pedestaled dishes, tall stands, and jars) was found along the pathway and near the presumed entrance, and such pottery may have once lined the approach to the tomb.

Ritual burial pits also occur in the jar-burial cemeteries to be discussed below. Although their number is unspecified, they seem to be primarily identified by the presence of ritual pottery hoards. It will be interesting to know whether there are any major differences between the ritual ceramics used here and those associated with the mound-burial. These ritual pits appear to come in many shapes and sizes with larger examples having a diameter of 4 m. or so. Such pits seem to be mainly limited to the Middle Yayoi.<sup>26</sup>

Archaeologists agree that the mound was reserved for people of the highest status at Yoshinogari. There is equal agreement that this Middle Yayoi mound could not possibly contain the mysterious Queen Himiko 卑弥呼, who did not die until shortly after A.D. 247. Like many Yayoi burial facilities, and in contrast to the mounds of the Kofun period, the Yoshinogari mound seems to have been the communal resting place for a particular family or lineage rather than one individual. From typological studies of the burial jars it would appear that at least two and possibly three generations were buried in the mound. The presence of daggers as grave goods suggests that all six adults were male, but it is not clear whether they were all at one time the paramount chiefs of Yoshinogari.<sup>27</sup>

Although the Yoshinogari mound is often described as the earliest example of this type of burial, this is not strictly true.<sup>28</sup> A few other early mound-burials are known in Kyushu and thus the Yoshinogari mound did not develop in total isolation.<sup>29</sup> It is the size of the Yoshinogari mound that distinguishes it from other Yayoi burial facilities. Nothing bigger is known until the end of the Late Yayoi, and in Kyushu there are no mounds of comparable scale until the Kofun period.<sup>30</sup>

Layers of stamped earth were found in the summer of 1990 in an area some 80 m. south of the Early Yayoi moat (that is, just north of the JR Nagasaki Line tracks). In excavations from October last year, this was confirmed to be a second mound-burial some 47 × 45 m. in dimension. So far only one burial pit, which is presumed to have contained a wooden coffin but is now empty, has been discovered and few details of this feature are available. From the ex-

<sup>26</sup> *Gaihō*, p. 66.

<sup>27</sup> Since a few Yayoi burials of women with bronze weapons are known, it is not certain that the Yoshinogari mound contains only men. A female burial with two bronze spearheads has been found on Tsushima. Oda, p. 104.

<sup>28</sup> Oda, pp. 90–96.

<sup>29</sup> In Kyushu the oldest mound burial is

found at the Mine site in Asakura-gun, Fukuoka, dating to the first half of Early Yayoi. Oda, p. 92.

<sup>30</sup> For a recent overview of Yayoi burial customs, see Kanaseki Hiroshi & Sahara Makoto 佐原真, ed., ‘*Yayoijin no Matsuri to Haka to Yosōi*’ 弥生人の祭と墓と装い, in *Yayoi Bunka no Kenkyū* 弥生文化の研究, Yūzan-kaku, 1987, 8, pp. 91–173.

cavated pottery, the mound construction has been dated to the early Middle Yayoi, thus overlapping with the northern tomb mound. The relation between the two mound-burials is an important question, but will have to await further details on the southern mound.<sup>31</sup>

### *Other Burial Types*

In addition to the mound-burial at least twelve separate Yayoi cemetery sites are known at Yoshinogari. At present count these contain around 2,000 jar burials,<sup>32</sup> 380 earthen pit burials, 6 wooden coffins, and 13 stone cists. There are two types of cemetery plan: those with graves arranged in long narrow strips and those with graves bunched in irregular concentrations. As an example of the first type, the Middle to Late Yayoi row cemetery at Shiwaya yon-no-tsubo stretches for some 600 m. Its regularity may indicate a social unit with considerable unificatory power. Of the 2,000 jar burials, about 1,500 are positioned in rows. The standard procedure for jar burials seems to have been that the corpse was placed into a bottom jar, which was then lowered into a deep rectangular pit. This bottom jar was then sealed by another burial jar, by a smaller ceramic vessel, or by a stone or wooden lid. All of these types occur at Yoshinogari. Some of this variation appears to be chronological, for the proportion of stone and wooden lids covering single burial jars increases from the end of the Middle Yayoi.<sup>33</sup>

Little information has so far been published about any burials except those containing the most spectacular grave goods, but simple earthen pits were common. As few artifacts have been recovered from these pits, dating is difficult, but the pits seem to increase in number from the late Middle Yayoi. The Middle-phase Shiwaya yon-no-tsubo and Yoshinogari Areas I-III cemeteries have a ratio of jar to pit burials of 700:100 and 400:80 respectively. At the late Middle to Late-phase cemetery at Yoshinogari Hill Areas I-III, the ratio changes to 300 jars to 200 pits.<sup>34</sup>

Human skeletal remains from more than 300 individuals have been recovered from jar burials at Yoshinogari. The broken points of stone swords were found in two jar burials and were probably imbedded in the corpses at burial. A similarly violent fate seems to have befallen another individual in whose burial jar twelve arrowheads were recovered. One headless skeleton was also found, and the individual is presumed to have been beheaded, perhaps after death. This evidence has been used to support the now prevalent view of the Yayoi as a time of widespread warfare.<sup>35</sup>

<sup>31</sup> *Yoshinogari Iseki: Funkyūbo Suiteichi no Kakunin Chōsa* 吉野ヶ里遺跡: 墳丘墓推定地の確認調査, press release by Saga Prefectural Board of Education, 2 November 1990. See also *Asahi Graph*, 28 December 1990, pp. 20–21.

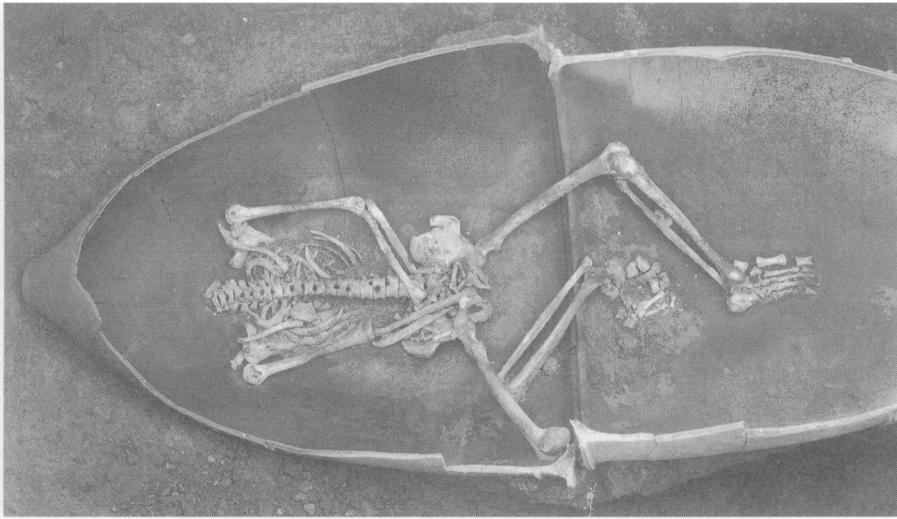
<sup>32</sup> As noted above, however, various ac-

counts of the excavations mention the discovery of 2,500 jar burials.

<sup>33</sup> *Gaihō*, p. 64.

<sup>34</sup> *Gaihō*, p. 67.

<sup>35</sup> For example, Sahara Makoto, 'Yoshinogari no Tataikai' 吉野ヶ里の戦い, in *Catalogue*, pp. 152–55.



Saga-ken Kyoiku Inkai

7. Jar burial with headless skeleton at Yoshinogari.

### Shell Bracelets

More than 28 shell bracelets were found inside seven jar burials; the earlier jars contained more bracelets than did the later examples. In one case a child's skeleton with nine shell rings on the left forearm was discovered in a Kunden-phase jar.

Yayoi-period shell bracelets were made by cutting thin sections through *gohora*, *imogai*, and other tropical shells. They first appear in the late Early Yayoi, are widespread in the Middle phase, and then die out in the Late Yayoi as bronze and jasper copies gained in popularity. There is generally a clear gender differentiation between *gohora* bracelets, worn by men, and *imogai* ones worn by women.<sup>36</sup>

Shell bracelets are extremely important for an understanding of Yayoi social organization.<sup>37</sup> *Gohora* and *imogai* are found only south of Amami Ōshima some 400 km southwest of Kyushu, and trade between Kyushu, Korea, and the Ryukyus must have been an important economic activity in the Yayoi period. As noted in *Wei zhi*, parts of northern Kyushu no doubt played an intermediary role in this trade, increasing their own wealth and political power in the process. *Wei zhi* particularly mentions Tsushima and Iki islands in this context, but, with its strategic access to the Ariake Sea, Yoshinogari is also likely to have derived some of its importance from maritime trade. Most Yayoi shell bracelets of Ryukyuan origin are centered in northwest Kyushu, but a few scattered examples are also known in Shikoku, Shimane, and even at the Usu 有珠

<sup>36</sup> Hashiguchi Tatsuya 橋口達也, 'Udewa, Yubiwa' 腕輪, 指輪, in *Yayoi Bunka no Kenkyū*, 8, pp. 182–92.

<sup>37</sup> Mori Kōichi, *Kome to Kinzoku no Jidai* 米と金属の時代, Chūō Kōronsha, 1989, pp.

23–50; Richard Pearson, 'Chiefly Exchange Between Kyushu and Okinawa, Japan, in the Yayoi Period', in *Antiquity*, 64 (1990), pp. 912–22.



site in Date, Hokkaido. A direct link between Kyushu and Hokkaido is confirmed by the fact that the composite *imogai* bracelets found at Usu are more or less identical to a bracelet found at the Miyanomoto 宮の本 site in Nagasaki.<sup>38</sup>

Apart from what they tell us about trade relationships, shell bracelets are also important as symbols of social ranking. The social role symbolized by the bracelets appears to have often been designated from childhood, evidenced by a number of juvenile burials with shell bracelets. People who wore these shell rings were probably not required to undertake physical labor and thus represent an elite stratum.<sup>39</sup>

### *Linen and Silk*

Fragments of linen were found attached to the dagger in jar 1002 in the mound-burial and to shell bracelets in burial jars from the Yoshinogari Hill site. Although many examples of Yayoi linen are known from Kyushu, the Kinai, and Toro, this is the first time such cloth has been discovered inside a burial jar. The pieces were woven from hemp rather than ramie and are extremely fine. Linen with a fine woven structure is distinctive of the Yayoi period, with an average of more than 17 warp by 9 weft threads in one square centimeter. The Yoshinogari fragments are 30 × 30 and thus the finest Yayoi linen yet discovered. This texture is comparable with modern linen handkerchiefs or shirts (ca. 35 × 35), and the Yoshinogari cloth must have been of the highest quality available.<sup>40</sup>

The same burial jars that produced the linen also contained pieces of plain silk. Normally only one type of silk is found in one jar, but here three or four types were discovered together. In jar 1002 locally produced silk appears to have been wrapped around the dagger at the time of burial. Including Yoshinogari, silk has now been discovered from fourteen Yayoi sites, all in northern Kyushu; silk is not found outside this area until the Kofun period. Microscopic analyses of Yayoi silk threads have made it possible to distinguish between silk made from cocoons imported from east-central China and those from the Lelang district of Korea. The earliest silk found in Japan is from the Arita site in Fukuoka, dating to the end of the Early Yayoi. This is considered to have been spun locally from cocoons of south Chinese origin. At this time the export of sericultural techniques from China was prohibited and it seems likely that non-Han Chinese were responsible for bringing the cocoons to Kyushu. The relationship with south China continued until the mid-Middle

<sup>38</sup> Ōshima Naoyuki 大島直行, 'Hokkaidō Shutsudo no Kaiwa ni tsuite' 北海道出土の貝輪について, in *Kōkogaku Jānaru* 考古学ジャーナル, 311 (1989), pp. 19–24. See also Mori, *Kome to Kinzoku no Jidai*, pp. 38–42.

<sup>39</sup> Hashiguchi, pp. 182–88.

<sup>40</sup> Nunome Junrō 布目順郎, 'Yayoi Jidai no Kinu-orimono to Yoshinogari' 弥生時代の絹織

物と吉野ヶ里, in *Higashi Ajia no Kodai Bunka* 東アジアの古代文化, 61 (1989), pp. 22–35.

Although ramie (*karamushi* 苧麻) appears in *Wei zhi* and is often mentioned as an important raw material in ancient Japan, Nunome, p. 34, notes that almost all Yayoi examples of linen were made from hemp (*taima* 大麻).

Yayoi, when there was a switch to cocoons of Korean origin. This change was no doubt related to Han expansion into the peninsula and the establishment of the Lelang commandery.<sup>41</sup>

### *Human Hair*

A piece of human hair was found beside an almost complete skull inside an early Late Yayoi jar burial at Shiwaya yon-no-tsubo.<sup>42</sup> This is the first such discovery from a Yayoi site and the oldest example of human hair from anywhere in Japan. Some 5.5 × 3 cm in size, the clump seems to have been tied in some sort of loop. As the hairstyles of the third-century Wa 倭 people are mentioned in *Wei zhi*, this find has further stimulated the favorite Japanese pastime of matching the archaeological record with the Wei history. Hair-styles in Japan came under strong Chinese influence from around the sixth century, along with other aspects of ceremonial life. Before this the main source for researching both hair and clothing are the *haniwa* figures of the Kofun period. These *haniwa* show that in the fourth and fifth centuries men seemed to have arranged their hair in the *mizura* 角髪 style, in which the hair was parted in the center and tied together in loops over the ears. Women at that time pulled their hair up into a flat, squarish loop resting on top of the head in a style now known as *shimadamage* 島田髷, after the eighteenth-century style to which it is similar.<sup>43</sup> An example of hair arranged in the *mizura* style came from a tomb in Ibaraki prefecture dating to ca. 700.<sup>44</sup>

### *Non-Burial Artifacts*

More than 8,000 cases of artifacts were recovered from Yoshinogari as a whole. As these are still being studied, no more than a summary of the main classes of objects can be given. Much pottery from every phase of the Yayoi period was discovered. Vessels found include pots, jars, bowls, pedestaled jars, steamers, and stands. Apart from these items for daily use, much ritual pottery was also found, both as discarded trash in the moats, and in special ritual pits. These ritual ceramics include miniature vessels, large stands, and pedestaled cups. Although most of the Yayoi pottery is considered to be of local origin, the presence of types from other areas attests to regional interaction.<sup>45</sup> Other ceramic artifacts at Yoshinogari include curved beads (*magatama* 勾玉), bell-shaped objects, balls (possibly slingshots), and spindle whorls.

In addition to pottery, Yoshinogari has yielded many stone tools, such as reaping knives, sickles, axes, chisels, querns, grinding stones, spindle whorls, sharpening stones, arrowheads, and stone daggers and halberds. Reaping knives (*ishibōchō* 石包丁) are particularly numerous, with four discovered in one pit building alone. The handle and part of the blade of a stone dagger was

<sup>41</sup> Nunome, pp. 23–25.

<sup>42</sup> GB 1989:6, pp. 21–22.

<sup>43</sup> Hashimoto Sumiko, 'Hairstyles', in *Kodansha Encyclopedia of Japan*, 1983, 3,

pp. 82–83.

<sup>44</sup> GB 1989:6, p. 21.

<sup>45</sup> *Gaihō*, p. 63.

found from a pit building dating to the end of the Early or beginning of the Middle Yayoi at Shiwaya roku-no-tsubo (B).

### *Iron Artifacts*

Iron tools, consisting of axes, spade-shoes, sickles, point planes, arrowheads, and knives, were found in features dating from the Middle Yayoi onward. They were particularly concentrated around the area of the moated village, and settlements without moats had few iron objects. Among the iron tools, the axes are considered to have been the only ones cast. An iron dagger with a ring handle was found in a jar burial at Shiwaya yon-no-tsubo. This was the only iron artifact to come from a burial.<sup>46</sup>

### *Bronze Mirrors*

One of the surprises at Yoshinogari has been the total lack of bronze mirrors from burial contexts, for Chinese mirrors were often used as grave goods in Yayoi jar burials and stone cists in Kyushu. These mirrors are also found in Honshu and Shikoku, but 69% of Han-period examples discovered in Japan have come from Kyushu.<sup>47</sup> In the vicinity of Yoshinogari about fifty continental mirrors have been found, mostly in burials, from Yayoi and earliest Kofun-period sites on the Tsukushi Plain. Of the seven examples from pit buildings or ditches, all are fragments rather than complete mirrors.<sup>48</sup> The Yoshinogari excavations have increased this list to ten with the discovery of three more fragments. One piece, possibly from a flower-petal (*naikō kamon* 内行花文) mirror, came from the outer moat in Area V of Yoshinogari sub-site; another was found in a ditch between the inner and outer moats at the same locality; the third came from a pit building at Shiwaya yon-no-tsubo.

Apart from the three fragments of Chinese mirrors, four locally produced miniature mirrors were discovered at Yoshinogari. This type of mirror represents the crude beginnings of indigenous mirror-making in southern Korea and western Japan.<sup>49</sup> The earliest Japanese examples probably date to the beginning of the Late Yayoi. They range in size from 3.8 to 10 cm in diameter, although most are less than 8 cm. In the Yayoi period the quality of both metal and decoration tends to be quite crude. Although they are known as locally produced mirrors, their origins are clearly to be found on the Korean peninsula. A miniature mirror from jar burial 46 at Futatsukayama 二塚山, a site less than 5 km from Yoshinogari, for example, is considered to have been cast in the same mold as mirrors from Uondong and P'yonglidong in Korea.<sup>50</sup>

<sup>46</sup> *Gaihō*, p. 72.

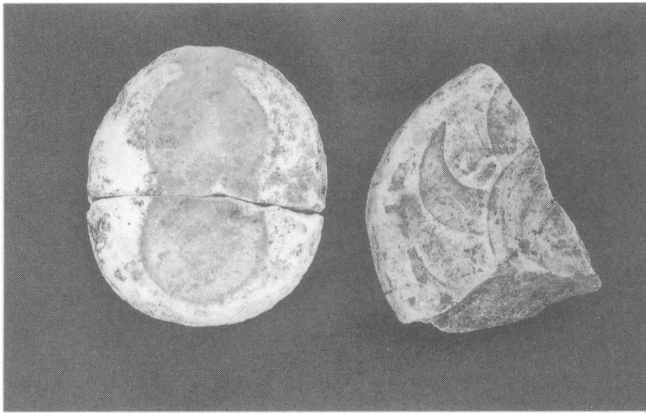
<sup>47</sup> Calculated from a distribution map made by Okita Masaaki 置田雅昭 & Kumazaki Tamotsu 熊崎保, in *Saishin Yamataikoku Ron*, p. 26.

<sup>48</sup> Takashima Chūhei, 'Yayoi no Kuni wo

*Hagukunda Haha naru Daichi* 弥生のクニを育んだ母なる大地, in YY, p. 101.

<sup>49</sup> Takahashi Tōru 高橋徹, 'Kagami' 鏡, in *Yayoi Bunka no Kenkyū*, 1986, 6, pp. 122-31.

<sup>50</sup> Takahashi, p. 124.



Saga-ken Kyōiku linkai

8. Two of the molds discovered at Yoshinogari.

The purpose of the mold on the left is unknown, but the one on the right was used to cast bronze cogwheel ornaments.

### Molds

The discovery of five stone molds suggests that Yoshinogari was an important center of early bronze casting.<sup>51</sup> Two of the molds came from the outer moat in Area V of the Yoshinogari sub-site. Of these two, one is a complete, oval stone mold with two small adjoining circles of 5.3 cm diameter. The purpose of this is not known.<sup>52</sup> The other example is a fragment of a sandstone mold for casting a bronze cogwheel ornament (*tomoegata-dōki* 巴形銅器). Such ornaments have an unusual design of four or more comma-shaped hooks radiating from a central boss. These objects are widely believed to be quiver or shield decorations. Not known on the continent, cogwheel ornaments first appeared in the early Late Yayoi and continued into the Kofun period.<sup>53</sup> The mold from Yoshinogari is a fragment, comprising only a quarter of the original, and is the first such mold to be discovered. From stratigraphical considerations, it may date to the early Late Yayoi.

A fragment of a mold for a bronze dagger was found in the late-phase inner moat at Yoshinogari Hill Area III; black stains covering the stone seem to be traces of actual use.<sup>54</sup> The fourth mold was recovered near the southern part of

<sup>51</sup> This interpretation is strengthened by the discovery of a pit containing a lump of tin at Tade-Nihon-Kuroki. *Nihon Kōkogaku Kyōkai Dai-56 Sōkai* 日本考古学協会第56総会, 1990, p. 40.

<sup>52</sup> *Yoshinogari, Fujinoki, Yamataikoku* 吉野ヶ里, 藤ノ木, 邪馬台国, Yomiuri Shimbunsha, 1989, p. 16.

<sup>53</sup> Gotō Tadashi 後藤直, 'Tomoegata-dōki' 巴形銅器, in *Yayoi Bunka no Kenkyū*, 6, pp. 146–51.

In the summer of 1990, however, a bronze

cogwheel ornament was found in a late fourth- or early fifth-century tomb at Kimhae Taesungdong 金海大成洞 in Kimhae in South Korea. This object is believed to have been introduced from Japan.

'*Kimkan Kaya Ōryō Hajimete Hakkutsu; Kyongju de Tōyō Saidaiyū no Seitetsu Ikō Hakkutsu*' 金官伽倻王陵初めて発掘; 慶州で東洋最大級の製鉄遺構発掘, in *Gekkan Kankoku Bunka* 月刊韓国文化, 132 (October 1990), pp. 136–39.

<sup>54</sup> Catalogue, p. 57.

the ridge. It is really two molds in one, as both sides have been utilized for casting socketed spearheads.<sup>55</sup> One side is the point of such a weapon, although the tip is missing. This side is considered to have been carved before the other side, which is the base section of a spearhead. The socketed base has three incised horizontal lines and two C-shaped lugs. The incised lines are characteristic of the earliest bronze spearheads in Japan, and three such examples have been excavated. Interestingly, no spearheads with two side lugs are known. Until now it has been received opinion that these earliest spearheads had all been imported from Korea, but with the discovery of the Yoshinogari mold there is a possibility that at least some were cast in Kyushu. This mold probably dates to either the end of the Early or the beginning of the Middle Yayoi and thus represents some of the earliest evidence for bronze casting in Japan. Another combination mold (for a dagger and spearhead) was discovered early in 1991, but few details are yet available.

#### *Palaeolithic and Jōmon Remains*

Stone tools dating to both the Palaeolithic and Jōmon periods were recovered. They were made of both obsidian and sanukite. The former is believed to come from Mt Koshi in Imari Bay;<sup>56</sup> in the Jōmon, obsidian from this source was distributed over a large area from Okinawa Island to Hyōgo prefecture. It has also been found at three sites in Korea.<sup>57</sup> Pottery from the Initial, Late, and Final Jōmon was excavated. Sherds of incised *tottaimon* 突帯文 pottery from Tade-Nihon-Kuroki belong to the Yūsusu style of the end of the Final Jōmon, when rice was already being cultivated at certain places in northern Kyushu.<sup>58</sup>

#### *Kofun-period Yoshinogari*

Settlements straddled the end of the Yayoi and beginning of the Kofun periods at Shiwaya roku-no-tsubo (B) and Yoshinogari Area V. The presence of a small sixth-century village was confirmed at Shiwaya yon-no-tsubo, where a pit also produced two unfinished wooden saddle parts.

Although the Kofun period is best known in the West for its distinctive keyhole-shaped tomb mounds, a variety of other burial forms also existed at this time and no keyhole mounds are known at Yoshinogari. At Shiwaya yon-no-tsubo a circular moated burial precinct (*enkei shūkōbo* 円形周溝墓) cut into Yayoi jar-burial pits. A similar precinct at Shiwaya san-no-tsubo had an estimated diameter of about 8 m., although both the northern part of the moat and any central burial had been destroyed. Both of these precincts are assigned to the very beginning of the Kofun period, that is, early fourth century.

Two adjoining tomb mounds and two square moated burial precincts were discovered at Yoshinogari Hill Area II. The two mounds are of the square-

<sup>55</sup> Catalogue, p. 56.

<sup>56</sup> Mori, in YY, p. 157.

<sup>57</sup> Warashina Tetsuo 葦科哲男 & Higashimura Takenobu 東村武信, 'Sekki Genzai no

*Sanchi Bunseki* 石器原財の産地分析, in *Nihon Bunkazai Kagakukai Dai-7 Kai Taikai* 日本文化財科学会第7回大会, April 1990, pp. 66-67.

<sup>58</sup> Hudson, pp. 63-66.

front, square-back type (*zempō kōhōfun* 前方後方墳). The larger is 26 m. long and 18 m. at the widest point; the second mound was slightly smaller. Both are oriented more or less east-west. The square moated precincts (*hōkei shūkōbo* 方形周溝墓) are located just to the east of the mounds, but both mounds and precincts had been badly eroded and no longer contained any evidence of actual burials. These features date to the beginning of the Kofun period.<sup>59</sup>

### *The Historical Periods*

Nara- and Heian-period features excavated at Yoshinogari included more than 200 pillared buildings, wells, fences, ditches, roadpaths, and pits. Most of these clustered at the western foot of Yoshinogari Hill, but evidence of terracing the hillside for building the structures exists and some were enclosed in fenced compounds. Most buildings were probably storehouses from the Nara period.

The roadway crossing the Yoshinogari Hill required a roadcut of substantial proportions and was accompanied by drainage ditches along its length. It is said to lie along the major route connecting Dazaifu 太宰府 and Hizen Kokufu 肥前国府. Because of the regular layout of buildings and administrative artifacts, both the Kanzaki County seat (*gunga* 郡衙) and a road station (*eki* 駅) are postulated to have existed in the Yoshinogari area.<sup>60</sup>

Medieval features at the site are relatively scarce compared to the other periods. Included are ditches, pits, pit graves, and wooden-coffin graves. A medieval castle, Hiyoshijō 日吉城, existed in the vicinity, and some of these remains may have been connected with it. One of the ditches had similar dimensions to the outer moat of the Yayoi village at Yoshinogari, and most interestingly, it coincides with the modern boundary between Kanzaki and Mitagawa townships. Artifacts of Haji ware, roof tiles, and imported porcelains and celadons from China were found in another ditch. Other burial pits yielded bronze coins, a celadon bowl, and Haji saucers.<sup>61</sup>

### *Subsistence*

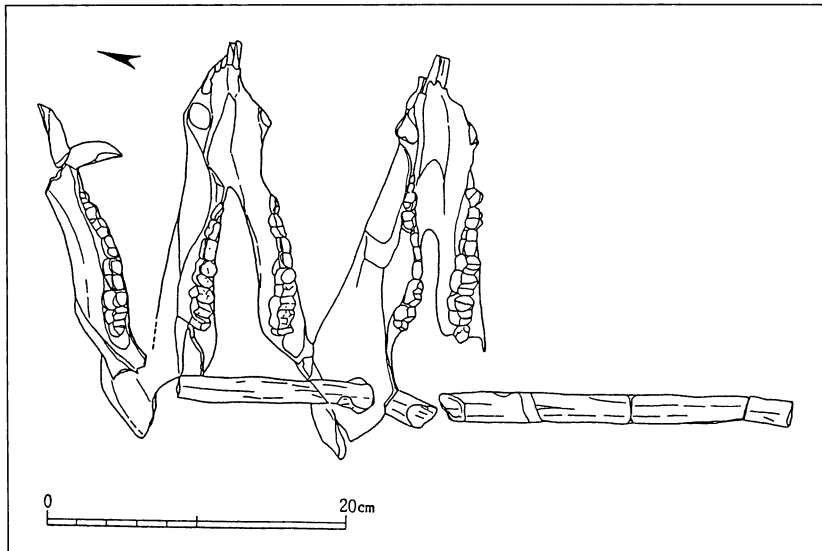
Little information is yet available on past subsistence patterns at Yoshinogari. From the geographical location of the site and the discovery of agricultural tools, however, it is assumed that wet-rice farming was central to the prehistoric economy. The tools can be divided into two groups: stone reaping knives, sickles, axes, and chisels from the first half of the Yayoi period, and iron sickles, spade and hoe shoes, axes, knives, and point planes from the second half.

Apart from rice agriculture, the inhabitants of Yoshinogari also hunted animals and collected marine and freshwater shells. The many bones and shells recovered from an Early Yayoi moat may suggest that these activities were more common in the earlier half of the Yayoi occupation. Animal bones

<sup>59</sup> *Gaihō*, pp. 76–78.

<sup>60</sup> *Gaihō*, pp. 78–82.

<sup>61</sup> *Gaihō*, pp. 82–83.



*Nabatake Iseki*, Karatsu-shi Bunkazai Chōsa Hōkoku, 1982.

#### 9. Pig mandibles found at the Nabatake site, Saga.

As pig jawbones from Yoshinogari have broken rear sections, they may also have been hung on a wooden pole in what is assumed to be a ritual practice introduced in the Yayoi.

excavated, primarily from the Early Yayoi moat, consist of dog, deer, and boar/pig.<sup>62</sup>

One of the more interesting developments in Yayoi archaeology in 1989 was the identification of the bones of domesticated pigs.<sup>63</sup> It had long been received opinion that domesticated animals had not been introduced into Japan during the Yayoi period, despite their presence on the Korean peninsula. But it has become clear that domesticated pigs existed at some Yayoi sites in western Japan. The best evidence for this is found at the Shimogōri Kuwanae 下郡桑苗 site in Ōita prefecture, but pig bones have also been identified elsewhere. There is a strong possibility that the *Sus* bones from Yoshinogari are also pig, based on both their morphology and the high percentage of juvenile animals.<sup>64</sup>

#### *Yayoi Population*

As mentioned above, the skeletal remains of more than 300 individuals have been discovered from jar burials at Yoshinogari. According to preliminary analysis, this skeletal material represents a tall-statured, long-faced population commonly found in jar burials in the Saga and Fukuoka plains. Populations with such characteristics are widely believed to be of immigrant, that is, non-Jōmon stock. As skeletal remains from the mound jar burials were so limited,

<sup>62</sup> Shichida Tadaaki, in *Catalogue*, p. 159.

<sup>63</sup> Nishimoto Toyohiro 西本豊弘, 'Buta to Nihonjin' ブタと日本人, in *Rekihaku* 歴博, 34

(1989), pp. 12-13.

<sup>64</sup> Nishimoto, quoted in GB 1989:5, pp. 34-35.

biological information on the elite of Yayoi Yoshinogari may not be so detailed as hoped. As noted above, the teeth recovered from jar 1006 were identified as probably belonging to an adult male. The only other jar from the mound that produced fragmentary skeletal material was #1007. This individual may also have been a male, about 163 cm tall.<sup>65</sup>

If the areas not investigated are taken into consideration, there may be some 15,000 jar burials in the vicinity. Most of the jars already found date to within a period of 200 years and, at twenty years per generation, this would suggest a population at any one time of 1,000–1,500 people.<sup>66</sup> On 1 March 1989 there were 49,456 people living in Kanzaki County. As Nara-period populations are assumed to be about 5% of present levels, this would indicate a figure of 2,500 for eighth-century Kanzaki. Allowing for slightly fewer people in the Yayoi period, 1,000 or so might be a likely population figure for the third century.

According to *Wei zhi*, Yamatai had more than 70,000 households; even if one household consisted of only four members, this would mean a population of 280,000 or so. The Middle-Late Yayoi sites surrounding Yoshinogari, such as Futatsukayama, Mitsunagata, and Yokota, may have together formed one chiefdom, or *kuni*, but since they all fall mainly in Kanzaki County their combined population is unlikely to have exceeded the estimated Nara-period level of 2,500 people. For some writers this is important evidence that Yoshinogari was not Yamatai,<sup>67</sup> but the *Wei zhi* figures are probably highly inflated.

### *Yamatai and Yoshinogari Fever*

The archaeological importance of Yoshinogari is beyond dispute, but excitement over the site can be understood only against the background of the search for Yamatai 邪馬台.<sup>68</sup> Yamatai is the modern Japanese reading of a chiefdom named in the Wei dynasty section of *Sanguo zhi* 三国志 as the ranking polity in the Japanese archipelago in the 240s. Some 29 *guo* 国, or chiefdoms, some of which were in Kyushu, are said to have owed allegiance to Yamatai and its Queen Himiko, who died ca. 247. *Wei zhi* describes an itinerary from Taifang 帶方 in Korea to Yamatai, but its distances are wildly exaggerated and its directions unclear. Yamatai's actual location has been a historical controversy for centuries.<sup>69</sup> Although two opposing views of a Kyushu or Kinai location still dominate the field, a recent map lists nearly 150 published theories.<sup>70</sup> While most of the proposed locations are centered in western Japan, some authors

<sup>65</sup> GB 1989:6, p. 13.

<sup>66</sup> Catalogue, p. 46.

<sup>67</sup> Yasumoto Biten 安本美典, *Yoshinogari no Shōgen* 吉野ヶ里の証言, JICC, 1989, pp. 14–16.

<sup>68</sup> Although the character 台 is usually used in modern Japanese, there is disagreement over which character was originally employed. 臺 in *Hou Hanshu* 後漢書 may have been a copyist's error for the 壹 in *Wei zhi*.

Takemoto Tōru, 'The Kyushu Dynasty: Furuta's Theory on Ancient Japan', in *Japan Quarterly*, 30:4 (1983), pp. 383–87.

<sup>69</sup> See John Young, *The Location of Yamatai: A Case Study in Japanese Historiography, 720–1945*, Johns Hopkins U.P., 1958.

<sup>70</sup> This map comes with *Saishin Yamatai-koku Ron*.



have suggested places in Niigata and Nagano prefectures, the Kōfu Basin, and even Java, Sumatra, and Egypt.

Popular interest in Yamatai was demonstrated by the massive media attention accorded to the Yoshinogari excavations. The site has been hailed as a 'country' of the Age of Himiko, which has been popularly parlayed into Yamataikoku. But far from being Himiko's capital, Yoshinogari seems to have been a smaller contemporary village whose excellent preservation is due to its position in an undeveloped area today. The mistake is in thinking that it was exceptional simply because it has been well preserved.

Because of its excellent condition, Yoshinogari is yielding information on Yayoi life and society in ways not possible at other sites. Currently one of the major gaps in Yayoi-period research is the lack of in-depth work on the growth of social complexity—the development from non-stratified societies at the end of the Jōmon to relatively complex polities by the end of Yayoi.<sup>71</sup> The remarkable preservation at Yoshinogari will hopefully stimulate such research. Occupied throughout the whole Yayoi period and with clearly defined temporal parameters, Yoshinogari should be an ideal test site for analyzing Yayoi social development. In fact few sites from anywhere in the world have been dug so completely and provided such a well-rounded view of the past.

What sort of place was Yoshinogari? How far did its power extend both geographically and politically? Does the site correspond to one of the kingdoms mentioned in the Chinese histories? The locations of at least five *guo* have been surmised from place-name connections: Tsushima 対馬 almost certainly refers to the Tsushima 対馬 Islands in Nagasaki prefecture, Iki 一志 to Iki 壱岐 Island, Matsura (Matsuro) 末盧 to the Matsuura 松浦 district of Saga prefecture, Ito 伊都 to the Itoshima 糸島 district of Fukuoka prefecture, and Na 奴 to the area around Fukuoka City.<sup>72</sup> The locations of these kingdoms show that, territorially speaking, the *guo* were quite small, with a maximum area of perhaps 100–150 km<sup>2</sup>. Furthermore, although the power of these kingdoms would have been primarily based on lowland rice farming, their territory may well have also included the hills behind the coastal plains. The finds at Yoshinogari do not imply that the site was part of a social unit radically different from the kingdoms of Matsura, Ito, and Na. Thus, on the basis of the two premises just noted, it is possible to suggest a hypothetical territory for a polity in the area of the site.

What we do not know is whether Yoshinogari was the center of a kingdom, although this seems probable. Because the burials at the site have produced less bronze goods than have some burials in the Fukuoka area, Yoshinogari may have been a poor cousin to the north-coast kingdoms. On the other hand, power may have been symbolized by other grave goods such as silk.<sup>73</sup> A major

<sup>71</sup> Hudson, pp. 92–100.

<sup>72</sup> Saeki Arikiyo, 'Wei zhi', in *Kodansha*

*Encyclopedia of Japan*, 8, pp. 240–41.

<sup>73</sup> Mori, in YY, pp. 136–37.

factor in the development of Yoshinogari's power was almost certainly the sea. It is difficult to believe that by at least the Late Yayoi the rulers of Yoshinogari did not control the lower reaches of the Chikugo River and thus access to the Ariake Sea. This geographical location was strategically most advantageous, enabling Yoshinogari to derive wealth from the sea as well as limiting the expansion of other hypothetical kingdoms on the upper reaches of the river. Historical records as far back as *Nihon Shoki*, in fact, show that the Ariake route was often used to communicate with the continent.<sup>74</sup> All these points lead to the conclusion that Yoshinogari was the center of one of the major polities in Yayoi-period Kyushu.

If Yoshinogari was as important as we have suggested, then should it not have been mentioned in *Wei zhi*? As early as 1716 Arai Hakuseki 新井白石, 1657–1725, suggested in his *Koshitsū Wakumon* 古史通或問 that, on the basis of the placename similarity, the *Wei zhi* kingdom of Mina/Minu 弥奴 was in the area of Mine 三根 county, the next county east of Kanzaki, in which Yoshinogari is located.<sup>75</sup> A related placename has existed in the area since the Kofun period and is mentioned in *Nihon Shoki* in an entry in the tenth year of Emperor Yūryaku 雄略.<sup>76</sup>

There is thus a possibility that Yoshinogari was once part of the kingdom of Mina. Of course, the identification of Mina is a textual problem that cannot detract from the archaeological importance of Yoshinogari. Little can be gained from the mere pigeonholing of sites into the rather vague political units mentioned in *Wei zhi* without an understanding of the origins and development of those units. Despite popular obsession with Yamatai, the real excitement of Yoshinogari lies not so much in discovery but in interpretation.

<sup>74</sup> Mori, in ㄃㄃, pp. 150–54.

<sup>75</sup> Mori, in ㄃㄃, p. 148.

A major problem in interpreting *Wei zhi* is the pronunciation of place names; the pronunciation of third-century north China should be taken into account when proposing place-name links.

For example, 弥奴 may have been pronounced 'Mina' in north China until the Eastern Han and 'Minu' in central China from the Eastern Han onward. Mori Hirotatsu 森博達, quoted by Mori Kōichi in ㄃㄃, pp. 148–49.

<sup>76</sup> W. G. Aston, tr., *Nihongi*, Tuttle, 1972, 1, p. 358.