

Burial practices and social complexity: Jomon examples

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ABSTRACT – *Many archaeologists investigated the burial practices of the Jomon in order to clarify emerging social complexity, especially in the 1950s. Recently, since the social complexity of the Jomon became an important issue, burial practice has been recognised as an indicator of a hereditary ranking system. As I have noted elsewhere, there is no clear evidence that a hereditary ranking system existed in Jomon society. However, instead of searching for hereditary ranking in the Jomon, burial practices could be analysed from another aspect. The temporal and regional distribution of Jomon burial practices has been clarified. In the Kanto district, communal graves appeared in the early Late Jomon. This type of burial has been discovered only in this area. In the same period, some burial practices also appeared in other areas of Eastern Japan. Although this change from Middle to Late Jomon has been recognised, it has not been investigated from the perspective of social complexity. In this paper, I will try to examine the change in burial practices from the Middle to the Late Jomon in terms of social complexity.*

IZVLEČEK – *Številni arheologi so preiskovali pogrebne običaje v kulturi Jomon z namenom, da bi razjasnili nastajajočo družbeno kompleksnost, še posebej v 50. letih 20. stoletja. V zadnjem času, predvsem odkar je družbena kompleksnost kulture Jomon postala pomembna tema, je pogrebni običaj priznan kot pokazatelj sistema dednega razvrščanja. Vendar ni jasnih dokazov, da je takšen sistem dednega razvrščanja v družbi Jomon sploh obstajal, kot sem opozoril že drugje. Pogrebne običaje bi lahko preiskovali tudi iz drugega vidika, ne samo z iskanjem dednega razvrščanja v kulturi Jomon. Časovna in regionalna porazdelitev pogrebnih običajev kulture Jomon je bila razjasnjena. V okrožju Kanto so se v zgodnji fazi obdobja pozne kulture Jomon pojavili skupni grobovi. Takšno vrsto pokopov so odkrili samo na tem področju. V tem obdobju se nekateri pogrebni običaji pojavljajo tudi na drugih področjih vzhodne Japonske. Kljub temu, da je bila sprememba od srednje do pozne kulture Jomon priznana, še ni bila raziskana iz vidika družbene kompleksnosti. V članku bom poskušal preveriti spremembe pogrebnih običajev od srednje do pozne faze kulture Jomon z vidika družbene kompleksnosti.*

KEY WORDS – *Jomon; burial system; collective burial; social change; social complexity*

Introduction

Since the social complexity of the Jomon became an important issue (Takahashi 2001; Yamamoto 2005; Watanabe 1990), the development of burial practice has been recognised as an indicator of a hereditary ranking system. Some archaeologists have asserted the existence of hierarchical society in the Jomon because of the construction of large stone structures at some sites (Fujimoto 1971; Goto 1953; Komai 1959; Kōno 1955). These stone structures appear mostly in northeastern Japan of the Late Jomon pe-

riod, and are thought to be related to mortuary practices. The early arguments were based on the large size of the stone structures, and the influence of historical materialism.

The recent discussion about the developing social organisation of the Jomon, which is based on ethnographical data on the hunter-gatherers (Kobayashi 1986; 1988a; 1988b; 1996; Nakamura 1999; 2002; Ōbayashi 1971; Sahara 1985; 1987; Sahara and

Kobayashi 2001; Watanabe 1990), has been concentrated on whether a hereditary ranking system existed. Most studies analyse the burial system of the Jomon in order to find evidence of social inequality, but there is little evidence of hereditary ranking (Yamada 2003; 2005).

However, instead of seeking hereditary ranking systems in the Jomon, burial practices could be analysed from another point of view. There is a great gap between an egalitarian society and a society of hereditary ranking system. There must have been varieties of social types, which should be called social complexity. The discussion on the hierarchical society of the Jomon reveals a problem in Jomon studies, which is a misunderstanding about hunter-gatherers and their social complexity. According to anthropological and ethno-archaeological studies, hunter-gatherer societies exhibit various types of social complexity, including trans-egalitarian societies (Hayden 1995; 2001). The Jomon period lasted for over 10 000 years, and social changes such as settlement pattern and subsistence have been claimed for its former stages (Habu 2004), but for the latter there is still space for discussion.

In this paper, I will try to examine social change from the Middle (5470–4420 calBP) to the Late Jomon (4420–3220 calBP) (Kobayashi 2008) in terms of burial practice.

The changing burial system in the Late Jomon

The most popular burial practice in the Jomon was primary pit burial, in the extended or crouched position. The temporal and regional distribution of the Jomon burial practice has been clarified. I will

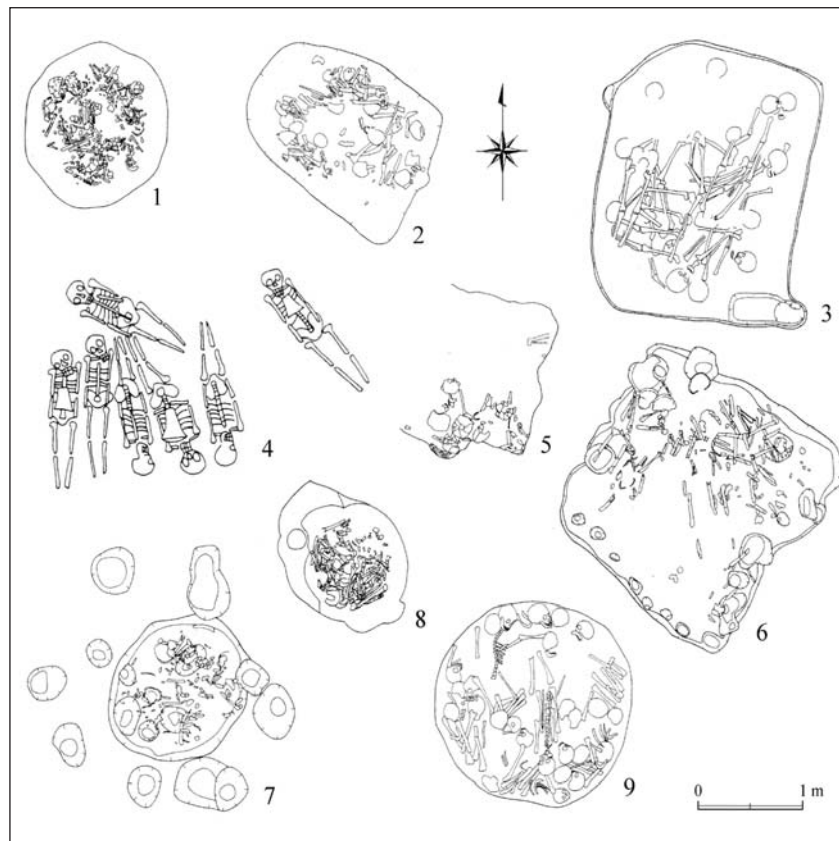


Fig. 1. Collective burials. 1 Gongembara. 2 Kosaku. 3 Miyamotodai. 4 Yahagi. 5 Hondatakada. 6 Gionbara (1). 7 Gionbara (2). 8 Gionbara (3). 9 Nakazuma (after Yamada 1995.Fig. 1).

focus on the burial system in the Late and Final Jomon periods around the Kanto district.

In the first half of the Late Jomon, especially in Eastern Japan, a new burial practice appeared. For example, graves enclosed in stone appeared in the central and north-eastern regions. In Northeastern Japan, large stone structures were constructed. Although the relation between these two regions has not been clarified, it is said that burial practices changed dramatically in Eastern Japan in this period.

	MNI	aspis (m)	minor axis (m)	depth (m)	shape
Gongembara	17	1.49	1.33	0.4	oval
Kosaku	14	1.8	1.3	–	rect.
Miyamotodai	15	2.37	1.85	0.55	rect.,pit
Yahagi	6	–	–	–	–
Hondatakada	28	–	–	0,2	rect.
Gionbara 1	6	2	2	0.1-0.2	rect.,pit
Gionbara 2	6	1.5	1.4	0.1-0.2	oval, pit
Gionbara 3	5	1.1	0.9	0.6	oval
Nakazuma	106	1.9	1.9	–	circular
Shimoōda A–C	40	–	–	–	oval

Tab. 1. Collective graves (after Nishimoto et al. 2001; Yamada 1995).

Although the changing burial system does not directly show the emergence of hereditary ranking, there must have been a sociological change which would have been within the range of complex hunter-gatherers at the beginning of the Late Jomon.

Collective graves in the Kanto Plain

In the Kanto district, collective graves appeared in the early Late Jomon. This type of burial has been discovered only in this area, and in this period. At the end of the Middle period, most sites existed for shorter periods compared to the periods before and after. Collective graves were constructed just after this chaotic period, which means that they were constructed at the beginning of new settlements. As I have written elsewhere (*Kawashima 2010*), after the construction of collective graves, ring-shaped earthen mounds were constructed. Such sites are thought to have been more long-term.

The collective graves contain both primary and secondary burials. More than ten grave pits have been found at these sites (Tab. 1, Fig. 1). Collective graves have the following characteristics:

- ① They were constructed at the beginning of the Late Jomon.
- ② Some graves had superstructure.
- ③ In some sites, pit houses and graves are found around these graves.
- ④ They are secondary burials mostly (*Yamada 1995*). Only at Yahagi a primary collective burial is clearly observed.

Of these sites, I focus on two: Nakazuma shell mound and Shimoōda shell mound, because mtDNA analysis of the excavated bones has been carried out.

Nakazuma shell mound

At the Nakazuma shell mound, a pit of secondary burial was found which contained more than 100

Haplotype	Specimen no.	n
1	N-1,2,15,17,110,140,148,150,155,161 163,175,184,185,190-1,190-2,207	17
2	N-4	1
3	N-5,111,137,158,206	5
4	N-12	1
5	N-18	1
6	N-113	1
7	N-138	1
8	N-186	1
9	N-203	1

Tab. 2. Haplotypes at Nakazuma (after Shinoda et al. 1998.Tab. 2).

individuals. Bones such as the crania and the appendicular skeletons are thought to have been buried within a short period. MtDNA data on 29 individuals was recovered from the grave at Nakazuma. Nine different haplotypes were observed (Tab. 2) (*Shinoda et al. 1998*), and two dominant haplotypes identified. The most frequent haplotype was observed in 17 individuals, while the second largest group consisted of 5 individuals. Other individuals have different haplotypes. As mtDNA is inherited through the maternal line, it is thought that a matrilineal system could have been adopted at the beginning of the Nakazuma settlement.

Kinship among the residents at Nakazuma was also analysed by comparing the similarities in tooth size ratios (*Matsumura, Nishimoto 1996*). Compared to the data of Jomon tooth remains from neighboring, two of five groups were identified by cluster analysis as being closely related. These data were cross-checked with mtDNA haplotypes (*Shinoda et al. 1998*). These two analyses share 21 individuals. Although it is difficult to find a strong correlation between the data from the two analyses, three pairs of strong correlation of tooth size ratios belong to the same haplotype. However, two dominant groups from the tooth size ratios share the same haplotypes. Although two dominant matrilineal groups were found by mtDNA analysis, in fact, it is difficult to assume that the society at Nakazuma practiced only matriliney.

Shimoōda shell mound

A similar result was obtained from the Shimoōda shell mound. 14 haplotypes were found from 25 individuals, yielding both Middle and Late Jomon specimen (Fig. 2) (*Nishimoto et al. 2001*). For the Late Jomon, 13 individuals from one of the collective graves, pit A, represent 7 haplotypes. Of 13 Late Jomon individuals, 7 belong to one haplotype. Also, at Shimoōda, a matrilineal line could have been important. As I noted, many small and short-term sites appeared at the beginning of the Late period, but, Shimoōda is an exception as the site continued from the Middle Jomon. In the Middle Jomon, graves were located in circles, and the deceased was buried in a crouched position (Fig. 3). On the other hand, in the Late Jomon, in which collective graves were also constructed, primary burials were in the extended position and arranged in squares. Both periods represent different types of burial custom; however, the mtDNA data show a continuous genetic inheritance. This might indicate that the ancestors of the deceased in pit A – for example, type 6 and 8 – also

lived at this site in the Middle Jomon. Although this is only one example, this kind of continuity can be observed in pit B, type 5.

These haplotypes found at the Jomon sites have been compared with contemporary mtDNA data, which shows that the haplotypes at Nakazuma are not dominant in contemporary Japanese haplotypes (Shinoda 1998), and those at Shimoōda were found over a wide area, mainly in East Asia (Nishimoto et al. 2001). Those found at the Jomon sites are thought to be neither specific nor dominant in the Jomon. Although a comparison with the Jomon haplotypes and more specimens are needed, the mtDNA data of the Jomon can be reliable to some extent.

Shimoōda is an exceptional case of site continuity from the Middle period, but at this site, collective burial began in the early Late Jomon period (Horinouchi 2 – Kasori B1 pottery type) (Tab. 3). In the collective graves at Shimoōda, matrilineal people, possibly descendants from the Middle Jomon, were buried. In the Kanto district, most sites, including Nakazuma, were formed in the early Late Jomon period. Considering the situation at Shimoōda, probably, Nakazuma was also inhabited mostly by descendants of people who had lived around Nakazuma. So, the change in the burial system could have been a cultural change, rather than a tribal migration.

Why did Late Jomon people adopt collective burial? In the case here, the difference in the settlement system may be the key to understanding changing burial practices.

The difference in settlement patterns between the Middle and Late Jomon

As I have noted elsewhere (Kawashima 2010), house structures changed from the Middle to Late Jomon (Fig. 4). Usually, pit houses in the Middle Jomon were dug deep into the ground compared with those in other periods. They have 4 to 5 main posts, and beams and rafters (Kobayashi et al. 2004:101). On the other hand, houses in the Late period have small postholes along the wall, besides the main posts (Fig. 5). Some archaeologists think that small post-holes imply the existence of a daub wall structure (Abe 1996).

In order to consider the change in house structure, the differences in house structure among Native

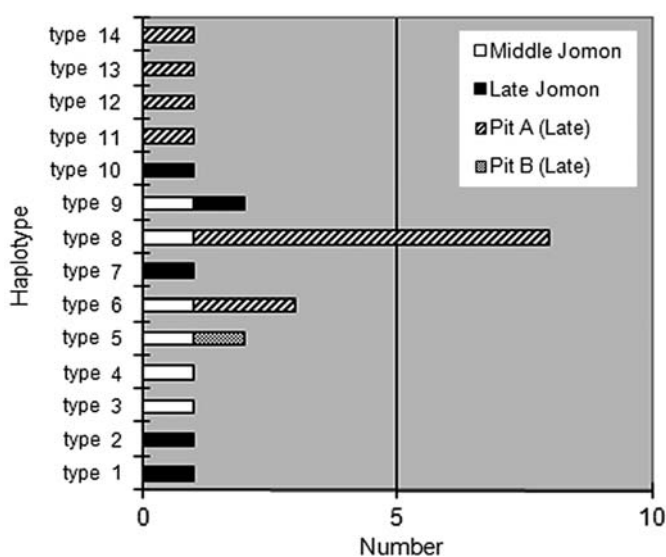


Fig. 2. Haplotypes at Shimoōda (after Nishimoto et al. 2001:Fig. 5).

American tribes is useful for comparison. Mutō (1995) described the use of pit houses in the Jomon, referring to the houses of Native Americans. There are different types of house structure, according to region, such as plank houses on the Northwest Coast, pit houses in the Plateau region, and tepees on the Plains, and so on.

Among these, the use of pit houses in the Plateau region is significant for comparison. Pit houses are used only in winter; in other seasons, a simple plain dwelling called a mat house is used. Pit houses have the following characteristics among the three groups of Thompson, Sampoil, and Modoc (Mutō 1995):

- ❶ They are used from December to February, for a maximum of three seasons, and are sometimes abandoned after one season.
- ❷ It takes two to four weeks to build a new pit house.
- ❸ Size varies from 3 to 12m diameter.
- ❹ When a household member dies, the house is abandoned.
- ❺ Pillars are replaced, but pits are reused.

Angyō (Late)	3400–3220	
Soya	3470–3400	
Kasori B3	3530–3470	
Kasori B2	3680–3530	
Kasori B1	3820–3680	Shimoōda
Horinouchi 2	3980–3820	Shimoōda, Nakazuma
Horinouchi 1	4240–3980	
Shōumyōuji	4420–4240	

Tab. 3. Date of the Late Jomon (calBP) (after Kobayashi 2008).

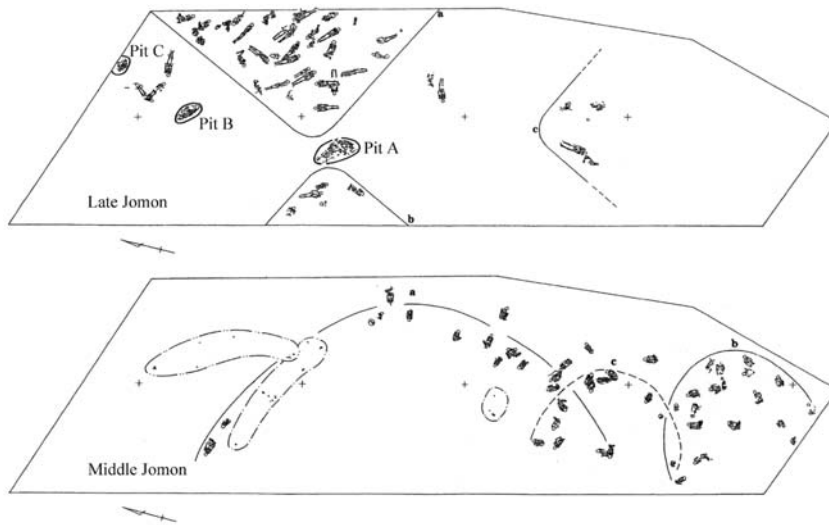


Fig. 3. Distribution of graves at Shimoōda (after Nishimoto et al. 2001. Fig. 5).

According to this comparative work, Mutō (1995) regards the Early and Middle Jomon as mobile societies, because many pit houses were constructed during this period. On the other hand, while pit houses were still constructed, society after the Late Jomon period is regarded as more sedentary, because of the increase of embedded pillar building which is suitable for sedentary lifestyle. Compared to the Middle period, the Late and Final Jomon houses tend to be reconstructed continuously at the same place, sometimes with an expansion or reduction in house size (Fig. 5). This implies continuous land use, longer than in the Middle period.

It remains a question as to whether pit houses in the Late Jomon can be equivalent to plank houses used in a relatively sedentary lifestyle. However, house structures in some areas of North America are significantly different, depending on the settlement pattern. Although the tribes of the Northwest migrate seasonally, they have permanent villages with plank houses. This is different from the more mobile people on the Plateau, who use pit houses in their winter villages.

Abundant pit houses in the Middle Jomon could be related to frequent seasonal migrations. Although most scholars oppose this idea, it is possible to think that the reduction in the number of settlements and houses in the Late Jomon was caused by a more sedentary lifestyle.

The meaning of changing burial practices

In the Middle Jomon, burials were performed in abandoned houses. As human bones have been re-

covered from just below the floor, the deceased could have been buried soon after death. Compared to the ethnographic examples from the Plateau region in North America, this could mean that pit houses were abandoned after a death, and the remaining occupants of the house moved. Although in some cases multiple bodies were buried in the same abandoned pit houses, the scale of burial was relatively small. They do not exceed the size of a household. On the other hand, the collective burial from the be-

ginning of the Late Jomon period contains several individuals in a secondary burial. In the collective burial of the Late Jomon, the burial unit is thought to have become larger than that of the household.

Collective burials were performed only over a short period. Considering the change in settlements, this burial practice could have been connected to sedentary settlements. From a point of view, they had to confront the deceased, the secondary burial could have been the solution. Primary graves were recognised and memorised, and bones were collected basically in terms of maternal lines. Yamada

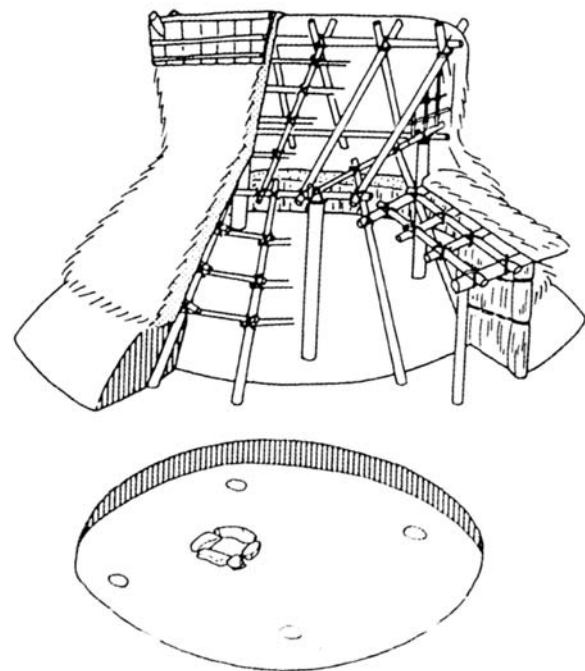


Fig. 4. Pit house of the Middle Jomon (after Kobayashi et al. 2004. Fig. 6.3).

(1995) asserts that this custom was performed in order to intensify social bonds by worshipping the ancestors of the settlement. From another point of view, people in the settlement had to claim their right to occupy it. In the case of Nakazuma, in terms of recovered pottery type, it is said that collective burial continued for the period of one pottery type, almost 40 years, according to ^{14}C dating. So, at some sites, the new settlement system was established within a very short period.

After the period of collective burial, several features appear in the same area, such as:

- ① several reconstructions of pit houses at the same point;
- ② large pit houses;
- ③ the formation of circular mounds;
- ④ rich ritual artefacts, including clay figurines and stone rods.

As I noted at the beginning, there is scarce evidence of hereditary ranked society in the Jomon. However, it is likely that the social structure after the Late Jomon was different from that of the Middle period.



Fig. 5. Pit house of the Late Jomon (after Yoshino 2003, Fig. 4).

The examination in this paper suggests that the change in burial practices was closely linked to that of the settlement system. The appearance of collective burials at the beginning of the Late Jomon period could have been related to changes in social structure.

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