

THE CHANGE IN THE DISTRIBUTION SYSTEM OF BRONZE MIRRORS AT THE BEGINNING OF KOFUN PERIOD JAPAN: AS SEEN FROM FRAGMENTED BRONZE MIRRORS

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THE PROBLEM

'Fragmented bronze mirrors' (Jap. *hakyō* 破鏡) designate fragmented pieces of mirrors that had been drilled or polished and date from Late Yayoi 弥生[後期] to Early Kofun 古墳[前期] period (roughly 1st to 4th centuries) (see pictures 1-3). The majority of the excavated pieces comes from the Japanese archipelago, while some few examples have been found in the southern Korean Peninsula. Most of the specimens have originally been Chinese mirrors from the Eastern Han Dynasty; small numbers were made from Western Han mirrors or Japanese imitated mirrors.

The beginning of Kofun period in mid-3rd century is important considering later ancient state formation process in the Japanese archipelago (cf. BARNES 2007; MIZOGUCHI 2002; TSUJITA 2006b). The purpose of this paper therefore is to introduce fragmented bronze mirror finds from Late Yayoi to Early Kofun period and to moreover discuss the diverse meanings of bronze mirrors in ancient East Asia. In addition, the author intends to emphasize the change in the distribution system of mirrors and the underlying political correlations of that period by examining fragmented mirror finds.

In ancient China, bronze mirrors were in use as everyday commodities, and they were buried in small numbers in tombs as mortuary goods. Chinese tombs regularly contained only one or two mirrors per person. In the Japanese archipelago, however, a peripheral area to mainland East Asia, mirrors were treated as exotic luxury goods by the local elite. Especially from the 1st century BCE onward bronze mirrors were intermittently imported from Lelang 樂浪, an outpost of Han Dynasty

China on the Korean Peninsula (OKAMURA 1999). Subsequently, placing several mirrors a time into a single tomb developed into a general feature of elite burials in the Japanese archipelago. At Hirabaru Site 平原[遺跡], located in Maebaru City 前原[市] (Fukuoka Prefecture) in northern Kyūshū, mounded tomb No. 1, which was constructed in latest Yayoi period, yielded forty mirrors of Eastern Han style, including the largest mirrors (ø 46.5 cm) yet found in East Asia. The Hirabaru tomb, moreover, contained the largest number of mirrors from Late Yayoi to Early Kofun periods found in a single burial. In Early Kofun period (mid-3rd to 4th centuries), mounded tumuli with more than ten mirrors became more regular and they are not as outstanding as in a Late Yayoi context.

Due to the unstable political situation during the Eastern Han Dynasty in China, the production of bronze mirrors decreased in the 2nd to early 3rd centuries (later Late to latest Yayoi), also in Lelang. The export of Han mirrors to the Japanese archipelago in consequence declined. Instead, the use of fragmented bronze mirrors increased in the Japanese archipelago.

How fragmented bronze mirrors were produced is a question difficult to answer. In the author's opinion, the shape of the fragmented mirrors and the way they were used are important, such as in the case of drilled specimens. Most of the drilled bronze mirrors are fragmented ones, but there is also a small number of complete mirrors (Jap. *kankeikyō* 完形鏡) with drilled holes, apparently allowing to put a string through and hang it. With reference to the drilled holes and the wear traces on the surface of such mirrors, UMEHARA (1933) pointed out that drilled specimens had been inherited as heirlooms

from generation to generation. Drilled fragmented mirrors thus might have been in use for a long time.

Eastern Han style mirrors have been excavated from Japanese keyhole-shaped tumuli, dating from the late 3rd to 4th centuries. It therefore is an eminent question when such Han style mirrors actually had been imported and how they were distributed. KOBAYASHI (1955, 1961) thought that Han style mirrors reached the Japanese archipelago in the 1st to 3rd centuries, and that they must have been passed on until the 4th centuries. The mirrors would have eventually been used as grave goods in Kofun period keyhole-shaped tumuli together with newly imported and distributed triangle-rimmed mirrors with divine and beast design (Jap. *sankaku-buchi shinjū-kyō* 三角縁神獸鏡), which again are supposed to have been produced mainly during the Wei 魏 Dynasty.

Although this is the general opinion, there are also different views. NAITO (1959), for example, pointed out that Han style mirrors excavated from later period sites may well have been imported together with Wei and Western Jin 晉 mirrors, which means only after the mid-3rd century (see also TAKAHASHI 1986, and later). Other scholars have called attention to the wear traces on the surface of such 'inherited mirrors' (Jap. *denseikyō* 伝世鏡), which might actually have resulted from problems related to the casting technique (e.g. HARADA 1960). It also seems necessary to find out where such 'inherited mirrors' were in fact inherited. MORI Kōichi remarked that in ancient China there were also some examples of mirrors which have been inherited (MORI K. 1962).

The many problems related to the importation and distribution system of bronze mirrors also bear some impact on the question whether local elite appeared in the Kinki 近畿 region already during Late Yayoi, or whether this region developed into a core area of inter-regional political relations only in the Kofun period. In other words, the mirror finds raise fundamental questions regarding the process of the beginning of the Kofun period and its widespread political organization.

The fragmented mirrors, in the author's opinion, play a very important role in this discussion, especially with regard to the change in the distribution system of bronze mirrors. In Late Yayoi, the number of complete mirrors and fragmented mirrors was almost balanced and the main area of distribution was northern Kyūshū. In Kofun period, on the other hand, complete mirrors became common as mortuary goods and the center of distribution now was Kinki region. The analysis of the process of appearance and disappearance of fragmented mirrors in Japanese archipelago therefore may contribute to solving problems related to the emergence of the political system of Kofun period.

As have been said, there are many different opinions connected to the process of appearance and disappear-

ance of fragmented mirrors from Late Yayoi to Early Kofun period. Fragmented mirrors were mainly found at later Late, latest Yayoi, and earliest Kofun sites. By the end of the Early Kofun period most of fragmented mirrors seem to have disappeared (TSUJITA 2005). Two questions are eminent in this context: how did the usage of fragmented mirrors appear and how and why did it disappear?

Three major hypotheses relate to the appearance of fragmented bronze mirrors. Firstly, some scholars assume that Han mirrors were imported as complete specimens. The mirrors then apparently would have been broken and divided into many pieces to meet the shortage of (complete) Han mirrors. The fragmented mirrors would have been distributed by Northern Kyūshū elite groups to surrounding local chiefs to confirm the political confederacy between them (TAKAKURA 1976, 1986). TAKAKURA (1972, 1985) pointed out that small imitated mirrors, produced in the archipelago, were distributed along the same lines. Such mirrors were modeled after small Western Han mirrors in Late Yayoi period.

On the other hand, MORI Teijirō (1985) and TAKAHASHI (1992) thought that fragmented mirrors had been imported already in the form of fragmented pieces. In other words, Yayoi people would have demanded mirrors in such a form. Another problem relates to the Late Yayoi custom of sometimes intentionally breaking complete bronze mirrors during the mortuary ritual before burying the pieces with the dead (KAWANISHI 1989; KOYAMADA 1992).

FUJIMARU (1993) pointed out the possibility that fragmented mirrors actually originated from such broken and divided mirrors because there are cases of missing mirror pieces among those broken mirror finds. And it moreover is intriguing that it is almost impossible to reunite some of the 'fragmented mirrors' to form a complete specimen or even a larger piece of it (FUJIMARU 2000; TSUJITA 2005).

Concerning the end of the usage of fragmented mirrors, MASAOKA (1979) analyzed pieces from Late Yayoi to Early Kofun period diachronically. He pointed out that the dead, fragmented mirrors had been buried with, were not paramount chiefs but lower ranked persons with some kind of special skill, which might have been related to magical rites. Fragmented mirrors, after MASAOKA, decreased in Kofun period; the way of the ritual use of mirrors changed.

As have been said, solving the riddle of the appearance and disappearance of fragmented mirrors in the Japanese archipelago bears many difficulties. Three points have to be analyzed more precisely: 1. the circumstances in which fragmented mirrors appeared; 2. the meaning behind the shape and the holes of fragmented mirrors; 3. the distribution system of fragmented

mirrors and its relation to complete mirrors.

APPEARANCE

The three main hypotheses relating to the appearance of fragmented bronze mirrors have already been mentioned: 1. complete mirrors might have been crushed and divided into fragments to meet the shortage of imported Han mirrors; 2. mirror pieces might also have been picked from intentionally crushed mirrors in mortuary contexts; 3. it is possible also that originally fragmented pieces were imported and polished and/or drilled after importation.

It is an important fact that the cases where mirror fragments (fragmented mirrors) from different sites can be reunited are few. I therefore assume that none of the three possible explanations can be ruled out completely, although I suppose that importing originally fragmented pieces was most common, because of the decrease of bronze mirror production and importation from Lelang in the later Eastern Han period, the rarity of cases where reuniting fragments was possible, and the existence of fragments of bronze mirrors in Lelang (cf. JEONG 2001).

Considering the time of their appearance, some mirror pieces were found in Middle Yayoi sites. But as most of them were found in later Late Yayoi sites of northern Kyūshū region, I would understand the appearance of the usage of fragmented mirrors at about later Late Yayoi or slightly earlier in northern Kyūshū.

CLASSIFICATION

Almost 170 fragmented mirrors with traces of cross-wise cuts or drilled holes from Late Yayoi to Early Kofun period have been confirmed (TSUJITA 2005, 2007b). In addition, there are many pieces of mirrors which do not have such clear indicators, so it is impossible to identify whether they are parts of originally complete mirrors or fragmented ones.

The shapes of fragmented mirrors are diverse. Some points have to be considered for further discussion: 1. what kind of types of mirrors that were used; 2. whether they were drilled or not; and 3. what kind of mirror parts were used for fragmented mirrors.

Firstly, there are various types of mirrors that were used to produce fragmented mirrors, but the most common types can be limited to two Eastern Han mirrors: the TLV type mirror (Jap. *hōkaku kikukyō* 方格規矩鏡) and the interconnected arc type mirror (Jap. *renkomonkyō* 連弧文鏡 or *naikō kamonkyō* 內行花文鏡) which both were made from about the 1st to 2nd centuries CE. A small number of Japanese small imitated mirrors have

also been used for fragmented mirrors.

Secondly, although there are many fragmented pieces with drilled holes, there are also a few complete mirrors with drilled holes. These specimens have broken central knobs. The holes therefore apparently were drilled to substitute the broken central knob, which originally had functioned as a means to pull a string through and hang or hold the mirror. Interestingly, there are very little fragmented mirrors made of the central knob part that show drilled holes. The role of drilled holes of such fragmented mirrors presumably was mainly to hang it as a pendant.

There are, however, two exceptional examples with drilled holes and central knob. One is an originally complete mirror that was broken into two pieces. The pieces have four holes each. The other is a fragmented mirror with four holes. The holes appear to have been drilled with the purpose of uniting or repairing broken pieces. In addition, FUJIMARU (1993) pointed out that there are some complete mirrors with drilled holes that appear to have helped dividing the mirror into pieces. The author recognizes traces of such holes on the fragmented triangle-rimmed mirror with divine and beast design from Rōji 老司 tumulus, Fukuoka Prefecture (see TSUJITA 2005: Fig. 1). So the inferred functions of drilled holes were: 1. to reunite or repair for original form; 2. to hang; 3. to divide / form.

Thirdly, various parts of mirrors have been used to make fragmented mirrors. Fragmented mirrors have, for example, been made from the rim part, the inner part, or the central knob part. The majority was made from the rim part. It is difficult to say whether the selection of the parts to make fragmented mirrors was intentional.

Since the shapes of the broken pieces of mirrors, e.g. in Hirabaru tomb No. 1, are very diverse, it is important not to overestimate this element, although suggesting a meaning behind the shapes bears some interesting problems. Some examples of fragmented mirrors do show similar shapes, such as the sector or half moon shape with drilled holes to be used as pendant. There also is one example with drilled holes to divide and reform for the sector form (see TSUJITA 2005: Fig. 1).

It is possible therefore to classify the shapes of fragmented mirrors and distinguish between the categories A (without central knob), and B (with central knob), as well as between type 1 (rim type), type 2 (from rim to inner part, less than 1/3 of a complete mirror in diameter), type 3 (from rim to inner part, more than 1/3 of a complete mirror in diameter) including the half moon shape, and type 4 (inner part without rim) (see picture 1-3 and TSUJITA 2005).



Fig. 1: Fragmented mirror (TLV type mirror, Type A1) with two holes excavated from the Karakami カラカミ site (from Late Yayoi layer), Nagasaki Prefecture (in the possession of the Dep. of Archaeology, Kyūshū University, Japan).



Fig. 2: Fragmented mirror (dragon with double heads design type mirror, Type B2) excavated from the Yamaga 山鹿 stone coffin No. 2 (Early Kofun), Fukuoka Prefecture (in the possession of the Dep. of Archaeology, Kyūshū University, Japan).

Although the difference of the shape of fragmented mirrors should not be overvalued, it is important to recognize shapes as similar, because – as was indicated by my analysis – there seems to have been a certain orientation towards similar shapes, such as the sector and half moon shapes (A1, A3, and B3).

DISTRIBUTION OF FRAGMENTED MIRRORS, COMPLETE MIRRORS AND THE CHANGE IN DISTRIBUTION

In Late Yayoi period, Eastern Han mirrors were imported mainly from Lelang into northern Kyūshū region. Many of those mirrors were buried in mounded tombs as mortuary goods, while on the other hand fragmented



Fig. 3: Fragmented mirror (interconnected arc type mirror, Type B4) excavated from the Kamitokoroda 上所田 tomb (Late Yayoi), Fukuoka Prefecture (in the possession of the Dep. of Archaeology, Kyūshū University, Japan).

Han mirrors were mostly used in ritual contexts and abandoned at settlements.

In Late Yayoi, the majority of excavated bronze mirrors in Setouchi 瀬戸内 and Kinki regions and further eastward are these fragmented mirrors; the number of complete Han mirrors from this period is very small. They spread from northern Kyūshū to Setouchi eastwards by interregional exchange. In the latest Yayoi, some complete mirrors were newly imported from Lelang and Daifang 帶方 (another outpost newly constructed at the beginning of the 3rd century). Most of such mirrors were originally complete, but nevertheless broken intentionally in the mortuary ritual. They have been buried in mounded tombs of northern Kyūshū and Setouchi, eastern Shikoku 四国, Kinki, and Tōkai 東海 regions.

After the beginning of Kofun period, Kinki region became the central area of (complete) Chinese bronze mirror distribution. In the Early Kofun period, newly imported (complete) Chinese mirrors (Eastern Han, Wei, Western Jin and triangle-rimmed mirrors with divine and beast design) were buried in keyhole-shaped tumuli of the elite throughout the Japanese archipelago. The larger specimens of this period are concentrated in Kinki region. This trend in mirror distribution also applies to Japanese mirrors that were modeled after Chinese originals in the Kofun period. Based on these archaeological phenomena, there must have been a drastic change in the distribution system of Chinese mirrors from Late Yayoi to the Early Kofun period. Complete bronze mirrors now have turned into the main items of the Early Kofun prestige good system.¹

Another intriguing problem connected to fragmented mirrors relates to the fact that in Late Yayoi, the quantity of fragmented mirror finds is almost the same in

¹ See FRIEDMAN and ROWLANDS 1977; KRISTIANSEN and ROWLANDS 1998; TSUJITA 2006, 2007b.

mounded tomb, settlement or ritual contexts. In Early Kofun, however, the number of fragmented mirrors in use as mortuary goods increased and they, moreover, appear to have been increasingly used in burials of persons of lower rank (cf. MASAOKA 1979).

Interestingly, the distribution patterns of fragmented mirrors and their original mirror types used in Late Yayoi and Early Kofun periods are very similar. We thus may suggest that the majority of the fragmented mirrors excavated from Early Kofun sites had already been spread in the preceding Late Yayoi to the various regions, and inherited as heirloom until the Early Kofun period. Fragmented mirrors then disappeared by the end of the Early Kofun period (TSUJITA 2005).

DISCUSSION

With this paper I presented a summary of the research I conducted in recent years on imported Chinese bronze mirrors (fragmented and complete) from Late Yayoi to Early Kofun periods.² In my opinion, the change in the distribution system and the process of importing Chinese mirrors are very important to assess the interregional relationship in the Early Kofun period.

From the beginning of the Early Kofun period on, complete bronze mirrors turned out to be embedded in a distribution system that was centered in Kinki region and that maintained the supply of bronze mirrors to support its wide political confederacy. It was the local elite of each area in the Japanese archipelago who demanded bronze mirrors in order to join the wide-ranging political network and legitimize their power.

The concept of my 'prestige good system' of the Early Kofun period thus comprises of two elements:

1. the acquisition, use, and consumption of these mirrors were limited to the local elite;
2. the cycle of acquisition, use, and consumption of these mirrors were inevitably embedded in the process of social reproduction.

It is possible that the new imports of many complete Chinese mirrors at the beginning of the Kofun period relates to Queen Himiko's sending of ambassadors directly to the capital of the Wei Dynasty, not only to Lelang and Daifang (CE 239 and later). This change, from fragmented mirrors spread in each region to complete mirrors distributed from Kinki region, signifies an epoch in which not only the system of bronze mirror distribution was reorganized but also the interregional relations that centered on Kinki region.

This process of change also reveals that the meaning of fragmented mirrors changed in Late Yayoi to Early Kofun periods. In Late Yayoi, fragmented mirrors were exchanged, used and consumed in various ritual con-

texts; they were polysemous objects. In Early Kofun, fragmented mirrors became the secondary substitute of complete mirrors as mortuary goods, while the use of the complete Chinese mirrors as mortuary goods became common.

In this model, the so-called 'inherited mirrors' are not complete Eastern Han mirrors excavated from keyhole-shaped tumuli of Early Kofun period, which would be the general opinion. Instead, they are fragmented mirrors inherited during Late Yayoi to Early Kofun period. The majority of the complete Eastern Han mirrors were, after my model, actually imported together with Wei and Western Jin mirrors at the beginning of Kofun period and later.

In summary, the complete mirrors (Chinese and Japanese) went out of use as mortuary goods during the later Early Kofun period (ca. 4th century). Iron weapons and armors replaced them and became the main mortuary goods at the end of the Early Kofun and the beginning of the Middle Kofun period. The fragmented mirrors disappeared during that process, losing its meanings by the end of the Early Kofun period.

In conclusion, there apparently are three overlapping contexts pertaining to the use of bronze mirrors in Early Kofun period:

1. complete mirrors in use as prestige goods distributed from the Yamato polity;
2. fragmented mirrors inherited since Late Yayoi;
3. small Japanese mirrors used in ritual context, which originate from the small Japanese imitated mirrors of Late Yayoi (pointed out by TAKAKURA 1999).

The process of change at the beginning of Kofun period (context 1), overlaid the older and continuing contexts (2 and 3). The persisting way in which mirrors from Late Yayoi were still in use and the in result overlapping contexts, however, strongly influenced the meaning of bronze mirrors and the role they played from the beginning of the Kofun period on.

CONCLUDING REMARKS

In this paper, I tried to highlight the characteristics of bronze mirror usage from Late Yayoi to Early Kofun period and relating issues, especially with regard to fragmented mirrors. Fragmented mirrors bear a wealth of information in view of the diversity of meanings of material culture as regards social and political processes. Fragmented mirrors were products within a process of long term social interaction among many local societies in the Japanese archipelago, and also between these societies and Chinese dynasties or their outposts in the peripheral area of ancient East Asia. Fragmented mirrors are closely connected to the process of the formation of

² See TSUJITA 2001, 2006a, 2006b, 2007a, 2007b.

wide-ranging political interactions and thus the beginning of the Kofun period in the Japanese archipelago.

Some relating issues, such as the typology and chronology of Chinese and Japanese bronze mirrors, the distribution and use of other items in Early Kofun period, and the analysis of the keyhole-shaped tumuli and the settlements, where these mirrors were used and consumed, are also eminent in this context. They constitute the issues currently under discussion in archaeology of Kofun Period.

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