The centre of their life-world: the archaeology of experience at the Middle Yayoi cemetery of Tateiwa-Hotta, Japan

Koji Mizoguchi*

**Graduate School of Social and Cultural Studies, Kyushu University, 744 Motooka, Nishi Ward, Fukuoka 819-0395, Japan (Email: mizog@scs.kyushu-u.ac.jp)*

Social analysis of cemeteries has traditionally viewed them as static images of social organisation. In this study of the Middle Yayoi jar-burial cemetery of Tateiwa-Hotta, however, the dynamic interrelationship between competing groups and successive generations can be discerned. Two initial burials proved to be foundational acts, followed by over 40 further burials spread over a series of generations. Differences in grave orientation and grave goods signalled the separate identities of the adjacent hamlets that came to bury their lineage leaders in this prominent location. Competition between lineages is indicated by externally acquired grave goods, including prestigious bronze mirrors from the Han commandery of Lelang in Korea, and by the varying styles of burial jar that illustrate and symbolise connections or alliances with other communities.

Keywords: Japan, Kyushu, Yayoi, Lelang, jar burials, cemetery analysis, bronze mirrors, stone reaping knives

This paper is published in full in *Antiquity* 88 no. 341 September 2014. Here we publish supplementary material.

Mizoguchi, K. 2014. The centre of their life-world: the archaeology of experience at the Middle Yayoi cemetery of Tateiwa-Hotta, Japan. *Antiquity* 88: 836–850.
http://antiquity.ac.uk/ant/088/ant0880836.htm

A preliminary report on the cluster and principal component analyses of burial jars from Middle Yayoi period northern Kyushu, Japan

Introduction

The burial jars of the Yayoi period in the northern Kyushu region of Japan have been subjected to various analyses, including their regional variability. It has been argued that there existed distinct groups of potters specialised in burial jar making, and that each of them had distinct supply areas (e.g. Inoue 2008).

With the testing of the thesis in mind, I have investigated the shape of 109 burial jars from the Naka (sixteenth excavation: abbreviated NK-16, 9 jars), Dojoyama (DJY, 33 jars), Yokokuma Kitsunezuka (KZ, 41 jars), Kuriyama (KRY, 10 jars), and Tateiwa (TTI, 16 jars) sites (all in Fukuoka prefecture, northern Kyushu region of Japan: for locations, see Figure 1 in the main article) by slicing them (i.e. their line drawings, from the bottom to the base of the rim) into a hundred diametrical segments. The measurements have been analysed with two multivariate statistical analysis methods, a cluster analysis method (the group average method) and the principal component analysis method (PCA), in order to examine the numerical-taxonomic character of their morphological variation.

Results

The outcomes, in terms of the distribution of individual jars from different sites in the dendrogram and scattergram produced, coincided well with one another.

The result of cluster analysis (the group average method): it can be observed that the jars from DJY basically occupy clusters to the left of the dendrogram whereas those from KZ distribute in clusters to the right of the dendrogram. The jars from NK-16 are split into different clusters to the left of the dendrogram, whereas that of TTI are split into a number of distinct clusters across the whole dendrogram (see shaded jars in Figure S1).

This picture can be understood to reflect a continuous gradient, or a 'geographical cline', extending from DJY to KZ, from the north to the south-east (see Figure 1 in the main article). Almost identical to the outcome of the PCA below, the jars from NK-16 are scattered across the distribution of DJY jars, and the jars from TTI form a number of distinct clusters.

Mizoguchi, K. 2014. The centre of their life-world: the archaeology of experience at the Middle Yayoi cemetery of Tateiwa-Hotta, Japan. *Antiquity* 88: 836–850.
http://antiquity.ac.uk/ant/088/ant0880836.htm

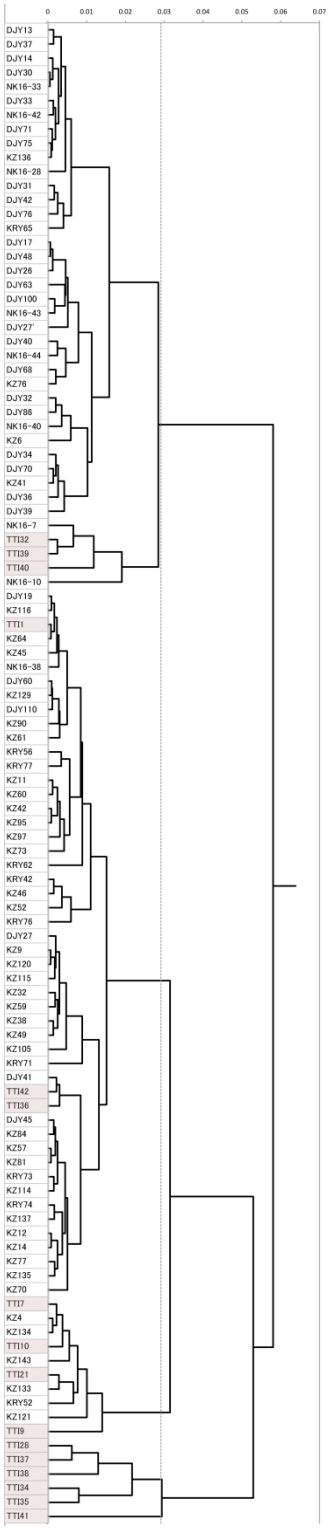

Figure S1. Dendrogram of 109 burial jars. Abbreviation: DJY: jars from the Dojoyama site; NK-16: Naka; KZ: Yokokuma-Kitsuenzuka; KRY: Kuriyama; TTI: Tateiwa-Hotta. Jars from Tateiwa-Hotta are shaded. Note their relation to the jars from the other sites. For the locations of the sites, see Figure 1 in the main article.

Mizoguchi, K. 2014. The centre of their life-world: the archaeology of experience at the Middle Yayoi cemetery of Tateiwa-Hotta, Japan. *Antiquity* 88: 836–850.
http://antiquity.ac.uk/ant/088/ant0880836.htm

The result of PCA (Figure S2): The eigenvalues of the first, second and third principal components add up to 96.76%, suggesting the outcome summarises the variability in a statistically satisfactory manner. The reading of the first principal component basically reflects the size variation. Therefore, the second and third PC scores are plotted in a scattergram.

The jars from DJY basically distribute across the second and third quadrants, whereas those from KZ distribute across the first and fourth quadrants. The jars from NK-16 are scattered across the distribution of DJY jars. The jars from TTI form a number of distinct clusters, scattering across the scattergram.

This picture, again, can be understood to reflect a continuous gradient, or a 'geographical cline', extending from NK-16 thorough DJY and KZ to KRY, from the north to the south-east.

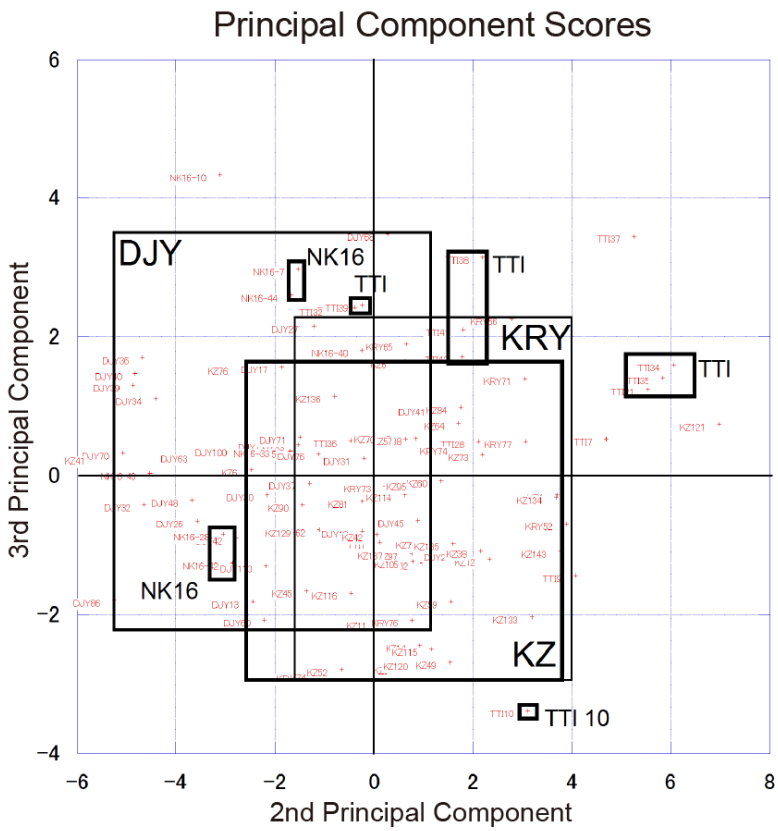

Figure S2. Scattergram of the second and third principal component scores of 109 burial jars. The distributional zones of jars from the respective sites are marked by rectangles. Abbreviation: DJY: jars from the Dojoyama site; NK-16: Naka; KZ: Yokokuma-Kitsuenzuka; KRY: Kuriyama; TTI: Tateiwa-Hotta.

Mizoguchi, K. 2014. The centre of their life-world: the archaeology of experience at the Middle Yayoi cemetery of Tateiwa-Hotta, Japan. *Antiquity* 88: 836–850.
http://antiquity.ac.uk/ant/088/ant0880836.htm

Concluding remarks

The combined result of the PCA and cluster analysis suggests that the regional variability of the burial jars in terms of their shape can be characterised as showing a continuous gradient, or a 'geographical cline.' It can be deduced that the burial jars were not produced by distinct groups of specialised potters with mutually exclusive styles/techniques but by semi-specialised potters sharing stylistic and technical characteristics with those of neighboring communities, probably through inter-communal interactions, including mutual visits, and the exchange of goods and marriage partners.

In order to further verify the above inference, the same analytical package needs to be applied to a much larger data set.

Reference

INOUE, Y. 2008. *Hokubu-Kyushu Yayoi-Kofun shakai no tenkai [The trajectory of northern Kyushu Yayoi and Kofun periods]*. Fukuoka: Azusa Shoin (in Japanese).

