
The Adoption Process of Clay Molds in the Production of Bronze Artifacts in the Yayoi Period

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In the Kinki region, clay molds began to be used in bronze ware production from the latter half of the mid-Yayoi period. The use of clay molds simplified the process of production and led to improvements in its techniques. In addition, by the end of the mid-Yayoi period, when clay molds were adopted in the production of bronze bells “Dotaku”, the number of groups of Dotaku craftsmen increased, and clay mold outer frames came to be used in the casting of small bronze artifacts. Thus, the adoption of clay molds during the Yayoi period is an important research topic that also reveals the dynamics of the bronze ware production system.

In this study, the adoption process of clay molds was examined through a basic analysis of two types of clay molds in the Kinki region: clay molds and clay mold outer frames. As a result, the following four things became clear. First, the adoption of clay molds in bronze ware production in the Kinki region was a gradual trial within the region, independent of external influences. Secondly, most of the clay mold outer frames were used to produce small bronze artifacts. Third, the technique of producing bronze artifacts using clay mold outer frames was widely spread. Furthermore, the weakness of the norms for these techniques and the lack of negotiation between production sites resulted in the emergence of regional characteristics. Fourth, the technique of producing bronze artifacts using clay mold outer frames was the technological basis for the new independent production of small bronze artifacts that emerged in the Late Yayoi Period.

Key words: Yayoi period, Kinki region, bronze ware production, clay molds, clay mold outer frames