Functional Analysis of Late Jomon Drills:  
A Case Study on Stone Tools from the Kiusu 4 Site, Hokkaido, Northern Japan  

TAKASE Katsunori

The goal of this paper is to reveal functions of Late Jomon drills from Hokkaido, Northern Japan. It also aims to consider the relationship between the drill utilization and the social complexity of this period. Materials for the analysis are 1315 stone drills from the Kiusu 4 site, Chitose City. As a result of the high-power approach of the lithic use-wear analysis, almost all of the drills were estimated to have been used for boring, not pinking. Furthermore, there was a tendency that “I-shaped,” “Rhombic shape” and “Unshaped and informal” types of drills were made on obsidian flakes, and they were used for pottery decorating/repairing, making beads and hide products. In contrast, “T-shaped” type drills have a tendency to be made on shale flakes and used for making hide products. We derived similar results by a comparative research of stone drills from the Bibi 4 site, Chitose City. In addition, we could also clarify that “I-shaped” and “Rhombic shape” types of drills made on chert flakes have a high correlation with boring shells at the Bibi 4 site. An intra-site spatial analysis at the Kiusu 4 site suggests that there is no specific pattern in distribution among these drill types, indicating that the manufacturing of leather products were not highly controlled by certain social subgroups in the settlement.

Key words: Kiusu 4 site, stone drill, lithic use-wear analysis, high-power approach