Use-wear Analysis of Stone Tools in Kunio Yanagita's Collection Preserved in the National Museum of Japanese History

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The purpose of this study is to reveal functions and uses of stone tools in Yanagita collection housed in the National Museum of Japanese History through the lithic use-wear analysis (the high-power approach). In addition, a test of the authenticity of these materials using the method is also a purpose of this study. Specimens of this study are all chipped and ground stone tools (43 artifacts) except accessories such as beads, natural pebbles and amber fragments. As a result of analysis, following points were clarified.

1) The use-wear polish was detected on four specimens: a knobbed stone knife (#A-624-5-2, provenance unknown), a drill (#A-624-1-9, provenance unknown), two ground stone axes (#A-624-3-6, Solov'yovka in Southern Sakhalin; #A-624-8-9, provenance unknown). Furthermore, black substance distributes on the edge and base of a ground stone axe (#A-624-4-4, provenance unknown).

2) A drill is likely to have been used for perforating shell or bone/antler.

3) A knobbed stone knife is estimated to have been used for cutting/sawing grass plant and wood.

4) Worked material of ground stone axes is evaluated as wood. We believe that an axe was used for felling, and an adze was used for processing wood.

5) The composition of stone tools showing high ratio of major tool types strongly suggests that specimens were collected selectively.

6) The existence of the use-wear polish, striations, and surface alteration indicate that stone tools in this collection are genuine prehistoric artifacts.

This study is the first instance of the lithic use-wear analysis of stone tools from Sakhalin. As we recognized the effectiveness of this method in this region, it will play an important role to reveal prehistoric resource use in the future.

Key words: Kunio Yanagita, lithic use-wear analysis, Sakhalin, Okhotsk Culture