
Origin and Development of Yayoi People from the Viewpoint of Archaeological Data and DNA Analysis

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This paper focus on the formation and development of Yayoi people by the effects of DNA analysis of human bones excavated at the Yayoi site and the Neolithic, Three Kingdoms periods in the Korean Peninsula.

Since 2018, we have been conducting carbon-14 dating, food habit analysis, and DNA analysis on the above human bones by Grant-in-Aid for Scientific Research Innovative Areas, commonly known as the "Yaponesians Genome".

As a result, in Japan, the DNA of the native people buried in the dolmens in the 8th century BC, the Yayoi migrants who started paddy rice cultivation along the coast of Isewan in the second half of 6th century BC, and the Yayoi people in the northwestern Kyushu around AD. On the Korean Peninsula, we were able to obtain the DNA of people from the early Neolithic period in about 6,300 years ago and the Three Kingdoms periods in about the 5th to 7th centuries. We considered five problems that these DNA's give to Yayoi period research.

(1) It was confirmed that there were Neolithic people on the Korean Peninsula with DNA similar to the Yayoi migrants in the southern part of the Korean Peninsula about 6,300 years ago. This fact means that on the Korean Peninsula, a mixture of ancient East Asian coastal populations and Neolithic people within the continent began more than 3,000 years before the Japanese archipelago.

(2) It has been thought that the Yayoi migrants were born from a mixed race of Jomon people and people in the southern part of the Korean Peninsula. However, we have not yet found a candidate people with DNA that is a partner of the Jomon people's mixed race among the Neolithic and Three Kingdoms people in the southern part of the Korean Peninsula.

(3) In the coastal area of Ise Bay in the 6th century BC, we confirmed paddy rice farmers with the DNA of the Yayoi migrants. This is the oldest example at present. The results of this survey suggest that there were already a wide range of the Yayoi migrants in western Japan in the west of the coastal area of Ise Bay. We examined the origins of the Yayoi migrants in western Japan.

(4) In the early Yayoi period, there were pot-shaped pottery with different genealogy such as the Ongagawa pottery and the ridge-shaped pottery, but it is possible that the DNA of the user was different. We consider the relationship between the genealogy of earthenware and DNA.

(5) We have that there are two type people in the northwestern Kyushu, one who has mixed blood with the Jomon people and the Yayoi migrants, and one who does not have mixed blood, and there are also people who have mixed blood in central and southern Kyushu. Northwestern Kyushu people in the Yayoi period who were born as a mixed race, We think about when and in what area they were born.

Key words: DNA analysis, Yayoi migrant, ancient East Asian coastal population, Neolithic people, the Yayoi people in the northwestern Kyushu