Expansion of the Yayoi Immigrants and Epi-Jomon People in Japan

MATSUMURA Hirofumi

It is well known that the human remains of the aeneolithic Yayoi period (ca. B.C. 300 - 300 A.D.) recovered from the Northern Kyushu and Yamaguchi districts in western Japan are considerably different in the skeletal morphology from the Neolithic Jomon natives, and they have been regarded as the immigrants from the Asian Continent or their offspring. The morphological gap between the natives and immigrants is found not only in the skeletons but also in the dentition. In consideration of microevolutionary history of the Japanese people, the expansion of immigrants to eastern Japan during the Yayoi period is one of the crucial problems. In order to approach this problem from an aspect of skeletal morphology, however, preservation of skeletal remains of this period is often in a poor state of condition. Even in case that the skeletal remains are fragile and fragmentary, well preserved teeth are occasionally available to study the morphology. The present author made discriminant function analyses on the tooth crown diameters of the Jomon natives and Yayoi immigrants for the purpose of distinguishing between those of the native and immigrant origins. The most effective discriminant functions correctly assessed the origin in more than 90% of the samples from both sexes. Through the use of the discriminant functions obtained, the Yayoi remains from eastern Japan were classified as of the native or immigrant type. The results suggest that the earliest immigrants diffused into central Japan, including the Kanto region.

The influence of the Yayoi culture associated with rice cultivation had little impact on Hokkaido, the northernmost island of Japan. There the Jomon period is followed by a so-called epi-Jomon, which corresponds to the Yayoi period on the other main islands. Various researchers have reported that the cranial morphology of the epi-Jomon specimens is similar to Jomon cranial morphology. The present study, based on the dental metrics, also classifies most of the epi-Jomon specimens as the Jomon type, which confirms the epi-Jomon people as direct descendants of the preexisting Jomon natives. On the other side, the present study unexpectedly classified several epi-Jomon specimens as the immigrant type with high probabilities, which can be interpreted as evidence for contact with the immigrants on Hokkaido. The specimen from Rebunge site possess features of the Yayoi immigrant, while those form Chatsu IV site have characteristics of another immigrant group, that it, Okhotsk series immigrated from Northeast Asia.