

The Initial Form of Rice and Millet Cultivation during the Final Jomon-Yayoi Transition Era from the View of Archaeobotanical Weed Assemblages

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This paper examined the initial form of rice and millet cultivation during the Jomon-Yayoi transition era from the archaeobotanical weed assemblages. The earliest paddy field was found from the middle and lower Yangtze region in China around 6400 cal BP. Archaeobotanical finds from Chengtoushan show the millet cultivation from northern China was already spread to the Yangtze region in this stage. Rice was probably cultivated on the small initial paddy field as well as on the wetland of flood plain around the site. Millet was probably cultivated on the dry farmland at the upland terrace area in the site. The set of rice and millet cultivation was spread to Japan via southern Korea however the timing of arrival is still under debate. Those who think that the timing was Middle to Late Jomon from the evidence of phytolith records and on the flip side, those who think the timing was after Final Jomon or Initial Yayoi (Tottaimon pottery stage) from the reliable impressions and macro-remains evidences. Although the earliest paddy field in Japan was found from Kyusyu during the Final Jomon or Initial Yayoi era, newly discovered Kitashirakawa-Oiwakecho site in Kyoto shows one of the initial form of wetland rice cultivation. Rice and millet were found from the wetland site without clear evidence of paddy ridges and water facilities for irrigation. The evidences suggest that rice was probably cultivated on the wetland and the millet was cultivated on the dry upland around the site. The composition of archaeobotanical weed and other wild plants from the site was compared with the early paddy field at Nabatake site in Kyushu. The main characteristics of the Kitashirakawa-Oiwakecho wetland site are that there were no typical paddy field weeds such as *Monochoria* and *Alismataceae* and there were still a lot of forest herbs compared with the Nabatake paddy field. This results suggest that the initial stage of rice cultivation was practiced by the clearing of swamp forest and making open wetland using natural micro-topography without making clear paddy ridges.

Key words: Rice cultivation, Millet cultivation, Paddy field, Jomon, Yayoi, Weed