When did the Wet Rice Cultivation with the Irrigation System Begin in the Western Japan
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This paper investigates when the wet rice cultivation with the irrigation system (hereinafter referred to as “Yayoi wet rice cultivation”) began in western Japan, as well as relevant issues, based on the radiocarbon dating for the time from the mid to latter half of the early Yayoi period (from the Itazuke II-a type to the Itazuke II-b type), whose date is controversial and called as the 2400 BP problem. The data were collected before and after the publication of “Calendar Dates for the Yayoi Period” (published by Yuzankaku) [Fujio 2009b].

In the past, we conducted dating tests of the Fukushige Inagi Site and Sasai Site in Fukuoka Prefecture, Sanno Site in Kumamoto Prefecture, Tamazawa Jori Site in Oita Prefecture, Agata Site in Ehime Prefecture, and Oban Site I in Hiroshima Prefecture. This time, we added three sites to the target list: Oho Yokomakura Site in Fukuoka Prefecture, Sho-Kuramoto Site in Tokushima Prefecture, and Motodaka Yuminoki Site in Tottori Prefecture.

The results of the dating and analysis confirmed for the first time that the new phase of the Itazuke I type had lasted for approximately 20 years at the end of the eighth century B.C. The results also agreed with the argument developed in 2009, dating the Itazuke II-a type to around the 700 B.C. - 550 B.C. period and the Itazuke II-b type to around the 550 B.C. - 380 B.C. period. Moreover, we reconfirmed that in the Tottori Plains, the Yayoi wet rice cultivation may have started in the early seventh century B.C., earlier than the Kinki region, and that in the Tokushima Plains, it had started in the mid sixth century, the same as in the Nara Basin and in the Ise Bay coastal area. This indicates the coincident extension of three Yayoi wet rice cultivation routes – the San’in, Setouchi, and Kochi routes – from northern Kyushu toward the east; the San’in route also extended almost at the same time as the other two routes.

It took approximately 400 years for the Yayoi wet rice cultivation to reach the Ise Bay coastal area. Although it had been confined to the Genkai Nada coastal area in northern Kyushu for the first 250 years, once it went out of the area, it rapidly spread out along the line from the Tottori Plains to Okayama, Kagawa, and Kochi Plains; and then arrived at Kobe five to six decades later; and at Tokushima, the Nara Basin, and the Ise Bay coastal area seven decades later. This implicates that there might have been differences between the Genkai Nada coastal
area and western Japan in the way of Jomon people to accept the Yayoi wet rice cultivation.

Key words: The Yayoi long-term chronology, Yayoi wet rice cultivation with irrigation system, carbon14 chronology, The 2400 BP problem, The Yayoi period