The Early Agricultural Settlements Pattern in Japan with Flood Disaster

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It has been said that Yayoi huge settlements in the Osaka Plain collapsed during the serious flood period at the end of the middle Yayoi period. And overcoming of flood disaster seemed to be the main factor for developing more hierarchic and integrated Kofun society. This paper aims to retest the settlements pattern of the Yayoi and Kofun period in the central of the Osaka Plain and the Yodo River Basin to know the relationship between social change, flood disaster, and villages and rice paddy-field. In the central part of the Osaka Plain, topographic changes by flood were not so big; the small packages of settlement with rice paddy field were not so damaged with flood. In lowland area along the Yodo River, from the Yayoi to Kofun periods, the main area of settlements moved to slop area or hill top area gradually, this tendency became noticeable in the middle Kofun period in the fifth century A.D. From the fourth century to fifth century A.D., we can see separate relationship between the settlements and rice paddy field which shows more integrated and controlled situation by local chief. And the isotope analysis of oxygen of tree rings shows that this period was less liable to change geographically by water flood with frequent heavy rains. This circumstance seemed to help the early Japanese agricultural society to fit for the flood disaster to the relationship between rice paddy field and the settlements. The social changes were caused by complex factor of both the social structure and natural circumstance.

Key words: flood disaster, settlements of the Yayoi and Kofun periods, rice paddy field, Yodo River Basin, social integration