

Cambodia, Sedimentary Environment Change at Site of Sambor Prei Kuk

Akiteru Yamasaki^{1*}, Tsuyoshi Haraguchi¹, Hitoshi Yonenobu², Ichita Shimoda³

¹Graduate School of Sciences, Osaka City University, ²Graduate School of Education, Naruto University of Education, ³Faculty of Science and Engineering, Waseda University

The ruins of Cambodian Sambor Prei Kuk are ancient city of the seventh century equal to the capital of the Chenla dynasty heyday, and the Chenla dynasty is placed in a development process of the Khmer civilization that built an Angkor Wat for "the pre-Angkor period". In these ruins discovered from a dense forest in 1894 by the French, it is performed comparing and drawing conclusions of by epitaphs being the ancient city Isanapura of the Chenla dynasty.

However, the documents are poor about the change that ruins followed to date, and there are many any questions because there is not the study from the field of natural science. In this paper, the ruins of Sambor Prei Kuk which was main site of the pre-Angkor period, I gathered the sediment around the ruins of Sambor Prei Kuk with a core sampler(B-trench spot, SS5 spot, SP5 spot) for the purpose of the paleoenvironmental change of the area after the pre-Angkor period and, tried to reveal from magnetic susceptibility, color, water content, XRF(X-rays fluorescence).

The B-trench spot was originally in the water area, but I was in the middle of becoming the land area, and reaching it at the present, Isanapura was constructed. The SS5 spot did not understand the details of the bottom layer, but the organic matter of wetlands deposited at constant speed, but phosphorus was supplied abundantly on the way and promoted a rise of the bioproductivity strongly. The SP5 spot was thought to be the bathing pond associated with the temple, and there was soil-stratum building soil when it was constructed 1400 years ago and it was maintained as a bathing pond and was water rich through the season. Meanwhile, there was a factor to bring a change in bioproductivity several times and, in the pond, was covered in a short term afterwards.

On the other hand, there were not clear comparison relations and was not able to evaluate the environmental change of the ruins of Sambor Prei Kuk area between the cores of three spots comprehensively. It was thought that sedimentation environment varied according to three core collection spots, and this simply discussed the local sedimentary environment change in this paper.

Keywords: paleoenvironment, sediment, Cambodia