

JSPS Report:

Water and Cities in Ancient Iraq through the Analysis of Clay Tablets

This project investigated ancient cuneiform tablets and sediments in southern Iraq in order to determine the origin of the world's first major cities in the 3rd millennium BCE. This involved using chemical analyses such as X-ray powder diffraction, X-ray powder fluorescence, microfossil analysis, and sedimentology. The project included participants from Osaka Gakuin University, under the directorship of Dr. Chikako Watanabe, and University College London's Institute of Archaeology, led by Dr. Mark Altaweel. Other members and member universities included Dr. Ryo Anma from Tsukuba University, Professor Takashi Oguchi from the University of Tokyo's Center for Spatial Information Science, Dr. Chiaki Oguchi from Saitama University, and Dr. Akihiro Tuji from the Natural Museum of Nature and Science, based in Tsukuba. The collaboration began after several years of contact and working on other related projects, including those that involved microfossils and a focus on ancient salinisation. The money was awarded through the Japan Society for the Promotion of Science (JSPS). The participants have greatly benefited through this effort as we have now learned more about the process in which cuneiform tablets are made and the relationship of sediments and establishment of early cities. We are currently publishing the results of this research in major international journals, including highly cited journals in the area of geoarchaeology, archaeology, and sedimentology. We have already applied for new JSPS funding and another JSPS project is due to begin on studying ancient stones used for Assyrian reliefs (Reconstruction of Assyrian reliefs through the analysis of material stone (17H04493: 2017-2020).