

Ancient temple and water environment map around Kharga Oasis, Western Desert, Egypt based on ALOS pan-sharpened imagery

Makiko Watanabe[1]; Katsura Kogawa[2]; Toshiro Sugimura[3]; Hiroyuki Kamei[4]

[1] Geography, Tokyo Metropolitan Univ.; [2] Human System Science, Tokyo Tech; [3] RESTEC ; [4] Computerscience, Tokyo Tech.

Kharga Oasis is the biggest oasis in the desert region between Egypt and Libya. The geographical location of this oasis suggests its importance in the large network system connecting the Western Desert, the Nile Valley, Nubia and Libya, which functioned as caravan route for slave trading from Sudan to middle Egypt in the Roman age. The representative ruins in Kharga Oasis; Hibis, Nadura, El Zayyan, El Ghweita, Dush Temples, were used as forts to guard the route in those days. In face of current population increase, the government of Egypt is keen to develop this area for agriculture and settlement by driving water from the Aswan.

The aim of this study is to provide a tentative map of temple and water environment around Kharga Oasis based on ALOS satellite pan-sharpened imagery and information obtained by field survey 2003-2008. The product of this study is expected to help archaeological studies of ancient Egyptian civilization and regional development policies in Kharga Oasis as well.