

Application of GPR for Prospection in Two Archaeological Sites at Aswan Area, Egypt

Authors : Abbas Mohamed Abbas, Raafat El-Shafie Fat-Helbary, Karrar Omar El Fergawy, Ahmed Hamed Sayed

Abstract : The exploration in archaeological area requires non-invasive methods, and hence the Ground Penetrating Radar (GPR) technique is a proper candidate for this task. GPR investigation is widely applied for searching for hidden ancient targets. So, in this paper GPR technique has been used in archaeological investigation. The aim of this study was to obtain information about the subsurface and associated structures beneath two selected sites at the western bank of the River Nile at Aswan city. These sites have archaeological structures of different ages starting from 6th and 12th Dynasties to the Greco-Roman period. The first site is called Nag' El Gulab, the study area was 30 x 16 m with separating distance 2m between each profile, while the second site is Nag' El Qoba, the survey method was not in grid but in lines pattern with different lengths. All of these sites were surveyed by GPR model SIR-3000 with antenna 200 MHz. Beside the processing of each profile individually, the time-slice maps have been conducted Nag' El Gulab site, to view the amplitude changes in a series of horizontal time slices within the ground. The obtained results show anomalies may interpret as presence of associated tombs structures. The probable tombs structures similar in their depth level to the opened tombs in the studied areas.

Keywords : ground penetrating radar, archeology, Nag' El Gulab, Nag' El Qoba

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