GROUND PENETRATING RADAR AND ELECTROMAGNETIC ARCHAEOGEOPHYSICAL INVESTIGATIONS AT LEGIO, ISRAEL

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Abstract: Historical texts and ancient inscriptions dated to the Roman period place the 2nd – 3rd century CE Roman Military Camp of the Sixth Legion Ferrate at Legio, in the western portion of the Jezreel Valley, Israel. Years of scholarship, particularly a series of archaeological surveys and excavations by Yotam Tepper, have identified the likely location of this camp on a field south of Tell Megiddo and north to Kefar 'Othnay (CAPAROTANIS).

An ancient Roman road and an aqueduct from the same time are well-known in this region. Roman pottery and other remains are scattered throughout the field in a large amount suggesting significant ancient occupation at the site. The area is a large flat terrace with a gradual slope to the present road (No. 66) to the east. It is believed that that platform may indeed be the remains of the Roman legion in question. In collaboration with the Legio Archaeological Project at Tel Aviv University (Yotam Tepper's PhD Research) and the Jezreel Valley Regional Project (Director, Matthew J. Adams), a geophysical investigation was planned on the proposed location of the camp.

The ground penetrating radar (completed by Jessie A. Pincus) and electromagnetic (completed by Tim DeSmet) archaeogeophysical investigations were performed during December/January 2010/2011 and August 2011, with the aim of locating possible underground structures on the site using geophysical technologies and to provide decision support for future excavation locations. With the aim to integrate the ground penetrating radar and electromagnetic survey data of the same area, our team surveyed an area in total almost 20000 sq. meters and focused on locating a possible corner or walls of the expected Roman Camp fortification.

The analysis, processing, and integration of the GPR and EM data will be presented in this paper, and recommendations for future excavation will be addressed.

No full paper available.