



Proposal for Research in the Shahrizor and Rania Plain Between UCL and Department of Geology at Sulaimani University

Shahrizor Plain

We would like to conduct geophysical survey of Holocene paleochannels that have gravel deposits. These paleochannels are important to map, as they help identify fluvial patterns in the plain and provide a picture of shifting channels. Our previous work in the plain has showed shifting channels and alluviation significantly affecting sediment accumulation in the Shahrizor since the beginning of the Holocene. This has been shaped by both human activity and climatic fluctuations, with likely increased drying trends occurring in the last 2-3 thousand years.

What we propose is we begin to map some of the paleochannel gravels in three regions in the Shahrizor plain. The first would be done in the region between Bakr Awa and Gurgachiya, located just to the northeast of Halabja. The other region we would like to investigate is near Begum and Shamlu, located to the west of Siad Sadiq. The final place we would like to investigate is near Yazin Tepe, located just south of Arbat town. The likely best methodology to locate the channels is the use of ground penetrating radar (GPR). Therefore we request the use of GPR that can penetrate the clay-silty sediments, with the required signal reaching between 1-9 meters in depth from the surface.

Rania Plain

The Rania Plain, similar to the Shahrizor, is a fertile intermontane valley. We are beginning new archaeological investigations of a Neo-Assyrian village (8th-7th century BC; Girdi Bazar) to learn about the environment and history of the region during this time period. We propose to use geophysical techniques to locate 1) architecture associated with this village and 2) channels and canals possibly used for irrigation of the plain located near or around the site. This may require the use of magnetometry, resistivity, and GPR. We would, therefore, like to use all three methods if possible. The channels would range between 1-9 meters in depth from the surface, while the archaeological deposits would be between 0.25-1.5 meters below the surface.

Proposed Work Outline and Obligations

We propose that this project becomes a joint UCL and University of Sulaimani Department of Geology project, supported by a MoU already signed between the two institutions. UCL will provide financing for any expense related to the project, including transport and housing for students while doing fieldwork. UCL will also provide relevant background data on the Holocene geography and archaeology of the region to assist with creating MSc dissertations. UCL staff will also be available to supervise any dissertation submitted to the Department of Geology at the University of Sulaimani. The Department of Geology will provide 1-2 MSc students to work and assist on the projects who are component in using the geophysical equipment. The Department of Geology will also provide relevant equipment for geophysics. This proposed time will be two weeks that takes place in September 2015. The exact date will be determined 1-2 months before fieldwork commences. If there are other requirements, these will be discussed between UCL and the Department of Geology and an agreement will be made when needed.

Dr. Mark Altaweel

A handwritten signature in black ink that reads 'Mark Altaweel'.

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