

Fieldwork in the Debed River Valley and the Gutanasar Volcanic Complex, Armenia

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From the 9th to the 24th of April 2018, I took part in fieldwork in Armenia with the Pleistocene Archaeology, Geochronology and Environment of the Southern Caucasus research group (PAGES). Overseen by Dr Keith Wilkinson (University of Winchester), Dr Jenni Sheriff (University of Winchester) and Dr Katie Preece (SUERC).



Fig 1. Thomas Olver (myself) in front of Lake Sevan, overlooking the North-Eastern section of the Geghama Highlands.



Fig 2. Photo of large section of the scoria deposits of Gutanasar. Dr Katie Preece marks the scale at the base of the large section.

interacted, their source and evolution. Secondly, the trip supplied me with a brilliant opportunity to complete volcanological field work at a postgraduate level, learning from experienced field geologists.

During the first part of the fieldwork, I spent the time with my co-supervisor Dr Preece, helping sample the extensive Debed lava flows, studying the extensive range of volcanism seen in the Armenian Highlands and learning how to properly observe and interpret volcanic deposits in the field. During the second part of the trip, we travelled to the Geghama Highlands, and sampled obsidian, pyroclastic flows, and lavas from Alapars, Gutanasar, Hatis and the Hrazdan river valley.

The samples collected by myself during this fieldwork were taken back to Royal Holloway, University of London where they have been cleaned, crushed and prepped for analysis by XRF. The data will contribute to whole-rock, isotope and mineral geochemical data from samples collected by my supervisor, Dr Christina Manning during field seasons in 2016 and 2017. The data is being used to model the evolution of the magma below the Gegham Highlands, the controls on the observed changes in composition and eruptive material, the depth and temperature of formation.

I would like to thank the Mineralogical Society for the instrumental part they played in getting me to Armenia, not only broadening and enhancing my research skills, but also enabling me to learn valuable fieldwork lessons in a professional, postgraduate setting.