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Submitted Abstract

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Abstract

This paper introduce in the application of cutting edge geophysical survey technologies in alpine archaeology on the example of the ancient mining site "Les Tseppes" in Valais, Suisse. In 2020, the Prehistoric Archaeology Division at the University of Zurich, in collaboration with the municipality of Trento (VS), the Vallis Triensis Association and the Cantonal Archaeology Department of Valais, launched a research project on iron ore mining in Trento, Les Tseppes. By means of remote sensing, intensive archaeological prospection, near surface geophysical surveys as well as small-scale targeted excavations, the first discovered findings on the local smelting and melting of the iron on site are being investigated. The aim is to capture as completely as possible the chaine operatoire that has developed and probably changed under the specific conditions of the site. The paper introduce in methodology and application of archaeo-geophysics and present the results of the magnetometer, Ground Probing Radar (GPR) and Electrical Resistivity Tomography / Induced Polarization (ERT/IP) surveys to explore smelting sites, furnaces and mining galleries at "Les Tseppes in detail.