Mediterranean Geoarchaeology Workshop Shaping the Mediterranean basin: island, coastlines and cultures across time Cagliari, 14-15 May 2015

River history and settlement pattern in eastern Sardinia: integrative geoarchaeology in the Rio Posada basin

Federica <u>Sulas</u>^{1*}, Rita T. Melis², Charles French³, David Redhouse³, Sean Taylor³, Giovanni Serreli¹, Francesca Montis², Giorgia Ratto²

¹ Istituto di Storia dell'Europa Mediterranea CNR, Cagliari, ITALY

² Department of Chemical and Geological Sciences, University of Cagliari, Cagliari, ITALY

³ Division of Archaeology, University of Cambridge, Cambridge, UK

* Email: sulas@cantab.net

For centuries, the Rio Posada has also provided a link between Sardinia's agricultural coastal plains and the sheep farming societies of its rugged mountain inland. Already a focus of Nuragic (Bronze Age) settlement, a main Roman port and, later, medieval religious and administrative centres were located in its delta. Despite such historical significance and time-depth, virtually nothing is known of the landscape and settlement history of the Rio Posada floodplain and hinterland that sustained, interacted and merged with changing cultural and political powers of the last three thousand years. To bring research forward, a new research programme is now combining geoarchaeological investigations, study of historical records and toponomastics to reconstruct patterns of settlement and land uses in the Rio Posada basin. This paper presents preliminary results of geoarchaeological borehole survey and soil analyses together with mapping of historical place-names in the floodplain. On the coast, buried levee deposits and channel fills reflect a dynamic plain environment and settlements located on the floodplain edges. Further inland, deep fine alluvial sequences point to low-energy river flow. While dating of these deposits in underway, the new records from the eastern coast of Sardinia can be associated with palaeovenvironmental proxies available for the island and the western Mediterranean in general and, thus, contributing to wider regional climatic and environmental sequences.

