
Decoding the ancient Karst landscape: minor features, fortifications and linear earthworks in the Mali Kras plateau (south-western Slovenia)

Federico Bernardini*^{†1,2}, Jana Horvat³, Boštjan Laharnar⁴, Lucija Lavrenčič³, and Giacomo Vinci⁵

¹Centro Fermi, Museo Storico della Fisica e Centro di Studi e Ricerche "Enrico Fermi" – Piazza del Viminale 1, I - 00184 Roma, Italie

²Multidisciplinary Laboratory, The "Abdus Salam" International Centre for Theoretical Physics (ICTP) – Strada Costiera 11, I - 34151 Trieste, Italie

³Inštitut za arheologijo, ZRC SAZU – Novi Trg 2, SI - 1000 Ljubljana, Slovénie

⁴Narodni muzej Slovenije – Prešernova 20, SI - 1000 Ljubljana, Slovénie

⁵Multidisciplinary Laboratory, The "Abdus Salam" International Centre for Theoretical Physics (ICTP) – Strada Costiera 11, I - 34151 Trieste, Slovénie

Résumé

The recent identification of early Roman military fortifications south of Trieste (north-eastern Italy) has led to an international effort aimed at investigating the surrounding ancient landscape. Our attention has been drawn to the Mali Kras plateau located at the Italian-Slovenian border, where the remains of two protohistoric hillforts, Mali Kras and Socerb, were already known. In absence of stratigraphic excavations, they are attributed to Bronze and Iron Ages. A cemetery, associated to Socerb hillfort, has been dated to a time span between the 6th century BC and the 1st century AD. LiDAR remote sensing of Mali Kras plateau has allowed to identify several unknown archaeological features, ranging from approximately square structures (30 x 30 m) to a rhombic enclosure (300 x 180 m) and very long linear earthworks associated to stone mounds, possibly towers remains. The elaboration and digitalization of high-definition remote sensing data compared to historical cartography, field surveys, targeted small-scale excavations and thermoluminescence dating have been performed in order to try decoding the complex archaeological palimpsest. The investigated features have proved difficult to date since little, if any, dateable material has been found. However, the square structures are associated with a few fragments of protohistoric pottery that, when typologically significant, point to a Bronze Age chronology. These structures, located in strategic positions, could have exercised a territorial control over the surrounding landscape or been related to breeding activities. The rhombic enclosure, located about 200 m south-east of the defensive wall of Mali Kras hillfort, shows a plan and a building technique compatible with those of 2nd century BC Roman camps, but archaeological evidence collected so far does not support such a chronology and a pre-Roman origin is plausible too. Thanks to LiDAR remote sensing data, the existence of long linear earthworks, generally close to or developed around protohistoric hillforts, is being recorded in several parts

*Intervenant

†Auteur correspondant: fbernard@ictp.it

of nowadays Slovenia. At least two long dry-stone walls and related possible remains of towers protect the south-eastern sector of Mali Kras plateau in correspondence of the most accessible entrance to the area. The preliminary data suggest these walls could correspond to protohistoric linear boundaries built to protect the area under direct control of Mali Kras and/or Socerb sites.

Mots-Clés: Karst, southwestern Slovenia, landscape, LiDAR, field surveys and small scale excavations, minor features, fortifications, linear earthworks