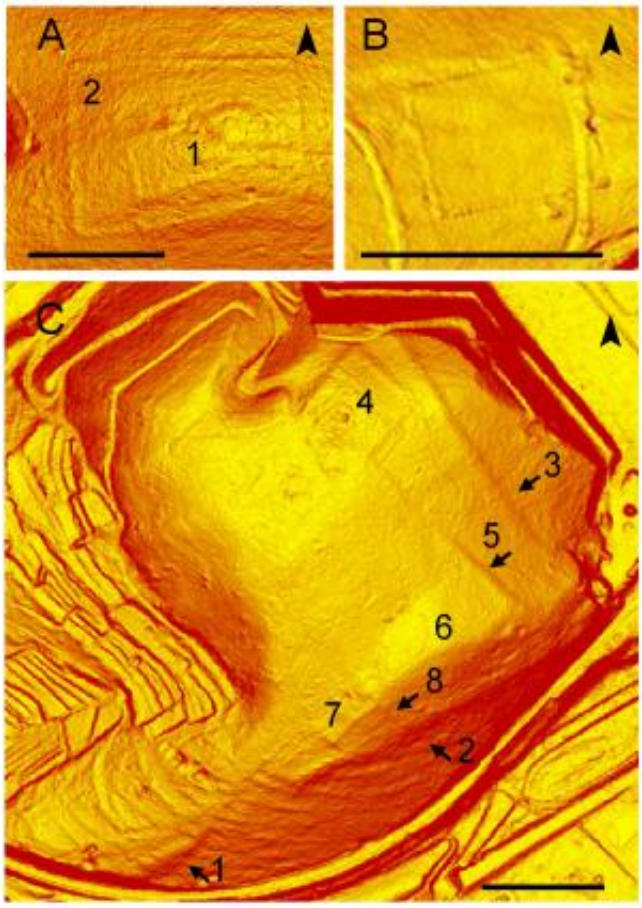
Researchers discover oldest Roman fort – possible origin of Trieste, Italy

March 17 2015, by Bob Yirka



The archeological sites. LiDAR-derived slope maps of Grociana piccola (A), Montedoro (B) and San Rocco (C). Numbers 1-8 indicate various structures of the Roman fortifications. Scale bars: 100 m. Credit: Civil Protection of Friuli Venezia Giulia

(Phys.org) —A large team of researchers working near Italy's northeastern border with Slovenia has discovered the remains of what appears to be the oldest known example of an ancient Roman fort. In their paper published in *Proceedings of the National Academy of Sciences*, the team describes advanced techniques they used to uncover the hidden remains of the fort, and why they believe what they have found could lead to answering questions about how the old Roman army became such a daunting force.

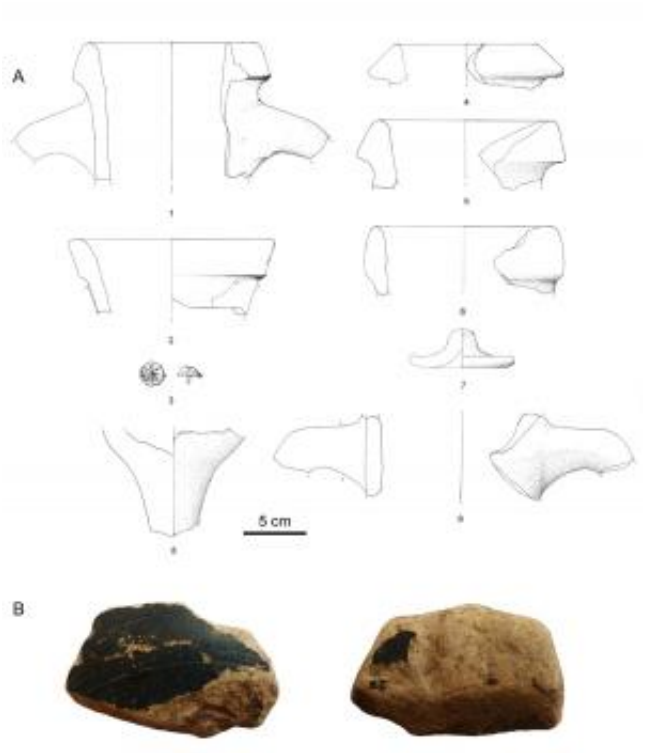
Examples of early Roman forts have been found in a handful of other countries, but until now, none had been found in Italy. This find was due to the researchers using Light Detection and Ranging (Lidar)—a scanner was placed aboard a helicopter which then flew over parts of Muggia Bay, a likely possibility for a fort due to its well protected natural harbor and close proximity to old Istrian territory. Lidar can reveal structures that are hidden beneath trees or that have a form that are not easily recognized in other ways. Other researchers have used the same technology to discover ruins in the Amazon basin. The team also used ground based radar and scouted the area on foot.

Their research has paid off—the team has found a major fort called San Rocco, and two smaller ones on either side it—their analyses thus far suggests the fort was built in 178 BC, making it several decades older than any other Roman fort ever found—its proximity to the city of Trieste suggests it likely also served as its origin.

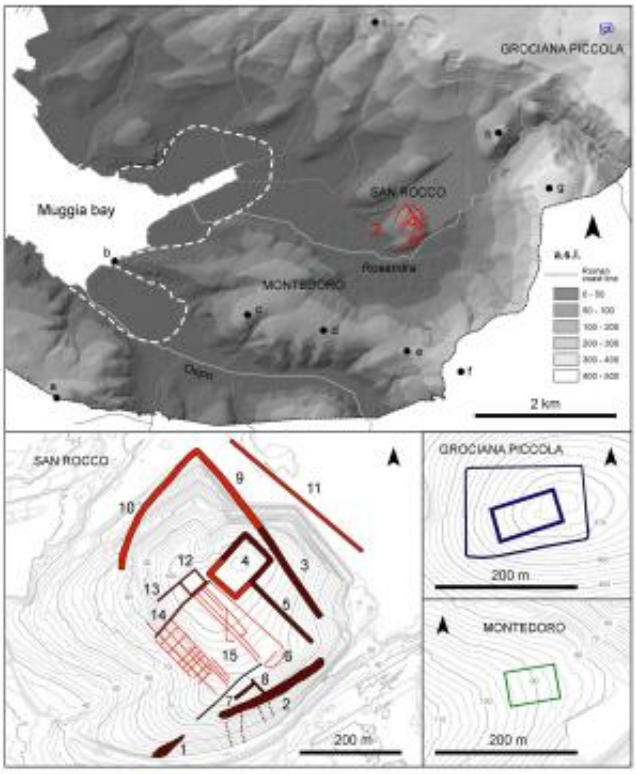
The finding is big news for researchers studying the Roman Empire—the timing of building of the fort coincides with the second Istrian War. The early Romans were keen to protect a settlement called Tergeste (which grew to become Trieste) from the people to the north which the Romans referred to as pirates. They lost the first war, and the building of the fort suggests they were quite serious about winning the second. But more importantly, the hope is that further study of the fort

will offer clues about the very beginnings of the Roman army and how it came to become such an effective force. Another hope is that further investigation will lead to direct evidence connecting the fort with a fort that was mentioned by early Roman historians.

Military footwear hobnail from Grociana piccola fort. Credit: MiBACT - Soprintendenza per i Beni Archeologici del Friuli Venezia Giulia



Archaeological materials from the Roman fortifications. A) Archaeological materials from Grociana piccola (1-3) and San Rocco (4-9) Roman fortifications. Drawings by S. Privitera (1-2), G. Zanettini (3) and A. Fragiacomo (4-9). B) Fragment of black slip pottery open vase from San Rocco camp; maximum length: 4 cm. Credit: MiBACT - Soprintendenza per i Beni Archeologici del Friuli Venezia Giulia



LiDAR-derived digital terrain model with the location and plan of Grociana piccola, Montedoro, and San Rocco fortifications. Orange represents features reconstructed from photo aerial documentation. Red represents surviving emerging features. The black circles indicate the main pre-Roman sites of the area. Credit: Federico Bernardini.

More information: Early Roman military fortifications and the origin of Trieste, Italy, Federico Bernardini, *PNAS*, DOI: 10.1073/pnas.1419175112

Abstract

An interdisciplinary study of the archaeological landscape of the Trieste area (northeastern Italy), mainly based on airborne light detection and ranging (LiDAR), ground penetrating radar (GPR), and archaeological

surveys, has led to the discovery of an early Roman fortification system, composed of a big central camp (San Rocco) flanked by two minor forts. The most ancient archaeological findings, including a Greco–Italic amphora rim produced in Latium or Campania, provide a relative chronology for the first installation of the structures between the end of the third century B.C. and the first decades of the second century B.C. whereas other materials, such as Lamboglia 2 amphorae and a military footwear hobnail (type D of Alesia), indicate that they maintained a strategic role at least up to the mid first century B.C. According to archaeological data and literary sources, the sites were probably established in connection with the Roman conquest of the Istria peninsula in 178–177 B.C. They were in use, perhaps not continuously, at least until the foundation of Tergeste, the ancestor of Trieste, in the mid first century B.C. The San Rocco site, with its exceptional size and imposing fortifications, is the main known Roman evidence of the Trieste area during this phase and could correspond to the location of the first settlement of Tergeste preceding the colony foundation. This hypothesis would also be supported by literary sources that describe it as a phrourion (Strabo, V, 1, 9, C 215), a term used by ancient writers to designate the fortifications of the Roman army.