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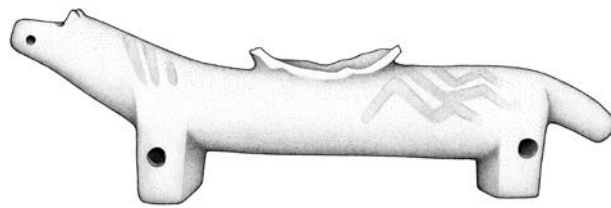
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SURFACE <> SUBSURFACE

**a methodological study of
Metal Age settlement and land use
in Calabria (Italy)**



Wieke de Neef

Groningen

2016

This PhD thesis is the result of research carried out within the *Rural Life in Protohistoric Italy* project at the Groningen Institute of Archaeology, and funded by the Netherlands Organization for Scientific Research (NWO).

Front cover: ploughed field in the Maddalena valley near San Lorenzo Bellizzi (top; W. de Neef); magnetic gradiometry data ($\pm 10\text{nT}$) of rectangular structures at Late Bronze Age site RB219 in Contrada Portieri, Cerchiara di Calabria (bottom; Eastern Atlas GmbH & CoKG); see also Appendix 1, pp. 348-457.

Title page: Proto-geometric horse figurine found at site RB228 (drawing Mirjam Los-Weijns). Full description in Appendix 1, p.320-21, FIG. A.24.

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Surface <> Subsurface

A methodological study of
Metal Age settlement and land use
in Calabria (Italy)

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Preface

This PhD dissertation is the result of five years of archaeological research carried out in a program called *Rural Life in Protohistoric Italy* (RLPI) based at the Groningen Institute of Archaeology (GIA) of the University of Groningen (the Netherlands). The program was funded by the Netherlands Organization for Scientific Research (NWO)¹ and ran between October 2010 and December 2015.

The aim of the RLPI program was to gain a better understanding of the many small surface artefact scatters found in Mediterranean field walking surveys. Despite the fact that such scatters occur in most Mediterranean landscapes studied by archaeological survey projects, they are still poorly understood. The RLPI program sought to remedy this situation by applying an interdisciplinary approach to gain more insight in the detection, preservation, and interpretation of such artefact concentrations. This approach was tested on an existing field walking dataset collected by the GIA in the Raganello basin in Calabria (southern Italy), where the majority of surface scatters consist of small concentrations of pottery fragments dating to the Metal Ages (ca. 3000-800 BC). We subjected this dataset to archaeological field walking (re-)surveys, geophysical surveys, manual augering, test pitting, material studies and geophysical laboratory work.

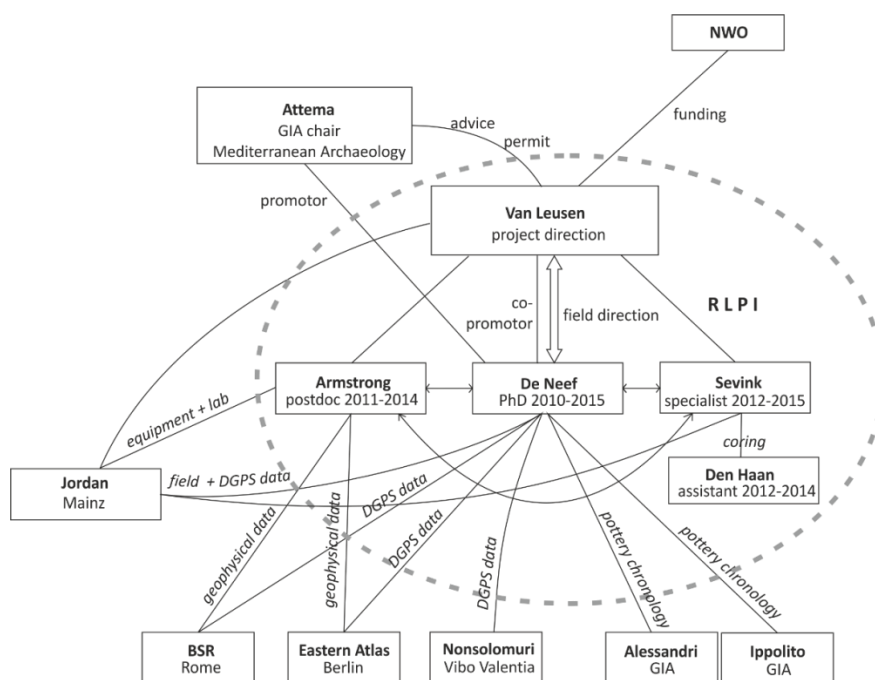


Figure 1. Organigram of the RLPI program and associated partners.

The RLPI project was directed by dr. Martijn van Leusen, associate professor of Landscape Archaeology at the GIA and my co-promotor (FIG. 1). He set out the general research outline, supervised the subprojects and coordinated the interplay between them, and was responsible for the finances. I conducted one of the sub-projects of the RLPI project, focusing both on human activity leading to the formation of surface artefact scatters, and on their detection by archaeologists. This involved a great deal of archaeological work, conducted during seven longer

¹ 'Free competition' grant no. 360-61-060.

fieldwork campaigns in the years 2011-2013 and several short study trips afterwards. Van Leusen and I functioned as the field directors of these campaigns. In the project I worked closely together with dr. Kayt Armstrong, post-doctoral research in archaeo-geophysics, and prof. dr. Jan Sevink, associate GIA researcher in soil formation. Fieldwork was carried out under the general GIA permit in the Raganello basin in northern Calabria (Italy), which was issued by the Superintendence of Cultural Affairs of Calabria².

The project team worked with external partners in the collection and processing of data. A notable partner was the Archaeological Prospection research group of the Johann-Gutenberg University of Mainz (Germany) directed by dr. David Jordan. Jordan and his group provided some of the geophysical equipment used during fieldwork and the use of a soil laboratory for geophysical lab work (Armstrong and Van Leusen forthcoming). Geophysical data was also collected by commercial partners, Eastern Atlas GmbH & CoKG and the prospection group of the British School in Rome (BSR). DGPS positioning data of local base points were obtained from four different partners: Eastern Atlas, the BSR, the Mainz team, and the Italian company Nonsolomuri. Chronological information of archaeological pottery collected during the RLPI project was obtained from two protohistoric pottery experts, Luca Alessandri and Francesca Ippolito, both of whom are associated with the GIA. Ippolito's PhD research into the typo-chronological and cultural aspects of protohistoric pottery in the Raganello basin, which ran parallel to the RLPI project, provided the relative dating of some of the sites discussed in this thesis. Alessandri, currently post-doctoral researcher at the GIA, made most of the finds drawings presented in the Appendix; draughtsman Siebe Boersma (GIA) inked and digitized them.

² Protocol no. 9508, issued 27 May 2009