

THE NORTH VULSINIAN SURVEY: DIGITAL MAPPING, SYSTEMATIC TERRITORIAL RESEARCH, AND THE PROBLEM OF PROTOHISTORIC OCCUPATION AND LAND USE IN SOUTHERN ETRURIA

1. TERRITORIAL PROCESSES IN PROTOHISTORIC ETRURIA AND THE PROBLEM OF SPARSE SETTLEMENTS¹

An important contribution to the study of the forms and dynamics of settlement evolution in Southern Etruria comes from protohistoric studies, which have had the merit of building up a broad base of knowledge, result of intense territorial research activity (CARDARELLI *et al.* 1980). These investigations, anticipated by the research of F. RITTATORE VONWILLER (1951 with bibliography), led to the acquisition of a vast amount of data (BELARDELLI *et al.* 2007) and the reconstruction of settlement dynamics in the region (DI GENNARO 1986; PACCIARELLI 2001; DI GENNARO, PERONI 1986; SCHIAPPPELLI 2008; BARBARO 2010). This research culminated in the definition of the process of social, economic, and territorial transformation which, between the end of the Bronze Age and the Early Iron Age, reached its full expression in the formation of proto-urban centers (PACCIARELLI 2001).

Despite Southern Etruria being one of the best-known areas with respect to protohistoric territorial processes, some aspects remain to be defined. Two points in particular stand out. The first concerns models of land occupation. The wealth of available data clearly demonstrates the consolidation, during the Bronze Age, of the settlement pattern based on well-defended hilltop, often corresponding to plateaux of several hectares (typically up to about a dozen), made defensible along all or much of their perimeter by steep slopes or rocky cliffs. On these reliefs developed nucleated villages (probably numbering several hundred inhabitants), often occupied for centuries. These centers are distributed at intervals of a few kilometers (typically at least three or four), a fact linked to the formation of territories stably controlled by the villages. Less well-known are other forms of settlement that certainly coexisted with defended villages, especially in the Early and Middle Bronze Age. A clear example is that of lakeshore settlements, a model, however, well known thanks to underwater archaeology. Another important, though less systematically recorded, phenomenon is that of small open settlements (or those on minor, undefended hilltop), often short-lived and located at short distances from one

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another. In certain areas, these settlements seem to reflect a pattern of sparse occupation by small human groups with only limited prospects of stability. This ‘sparse settlement’ pattern remains less documented and studied, also due to methodological problems connected with archaeological survey.

The second aspect concerns precisely the methods of systematic archaeological field survey, which will be discussed later in the context of a comparison between some of the largest systematic surveys conducted in Southern Etruria.

2. THE NORTH VULSINIAN SURVEY: METHODOLOGICAL ASPECTS

The North Vulsinian Survey was carried out between 2017 and 2019 in the territories of Grotte di Castro and S. Lorenzo Nuovo, located on the northern side of Lake Bolsena. The study formed part of an ‘industrial’ doctoral project at the University of Naples Federico II, aimed at producing an updated archaeological map – including evidence from prehistory through late antiquity – intended to contribute both to research progress and to the knowledge and protection of archaeological heritage² (FIORILLO 2020; FIORILLO, SCARDOZZI 2023).

An intensive and systematic survey method was adopted (an example of the field-by-field method in BINTLIFF *et al.* 2007), with a team of 4-5 surveyors positioned in parallel lines at regular 5 m intervals (PACCIARELLI *et al.* 2022). At the outset, the project aimed to cover the entire territory without preliminary sampling. This approach was deemed functional for future use of the map in archaeological heritage protection and territorial planning. As the research progressed, this objective, as usual, had to deal with visibility limitations, which ultimately allowed for the coverage of 7 km² (11%) out of a total area of about 53 km² (Fig. 1).

The main factors that resulted in zero or very low visibility were woodland cover (27%), uncultivated rural areas (18%), dense vegetation in pasturelands (13%), private properties (8%), and stubble fields (11%). Some obstacles (woods, private property, built-up areas) will likely remain a limitation in the future, while others, depending on land use, may not re-occur in future investigations. In this perspective, the mapping of not-visible areas provides a reliable basis for planning future work.

² New research was conducted in the autumn of 2025 in the territory of Gradoli, NW of the lake. These investigations are part of a broader PRIN PNRR research project aimed at the archaeological study of Andosols and their importance in the formation of complex settlement systems from prehistory to antiquity. ‘ASH PRIN 2022 PNRR Archaeological investigation of Soil Heritage: the case of Andosols. An integrated and open IT approach to investigate a crucial agricultural resource in Central-Southern Italy (Latium, Campania, Calabria, and Sicily) through archaeology, pedology, archaeobotany, and remote sensing’. Project Code 2 P2022NNE72.

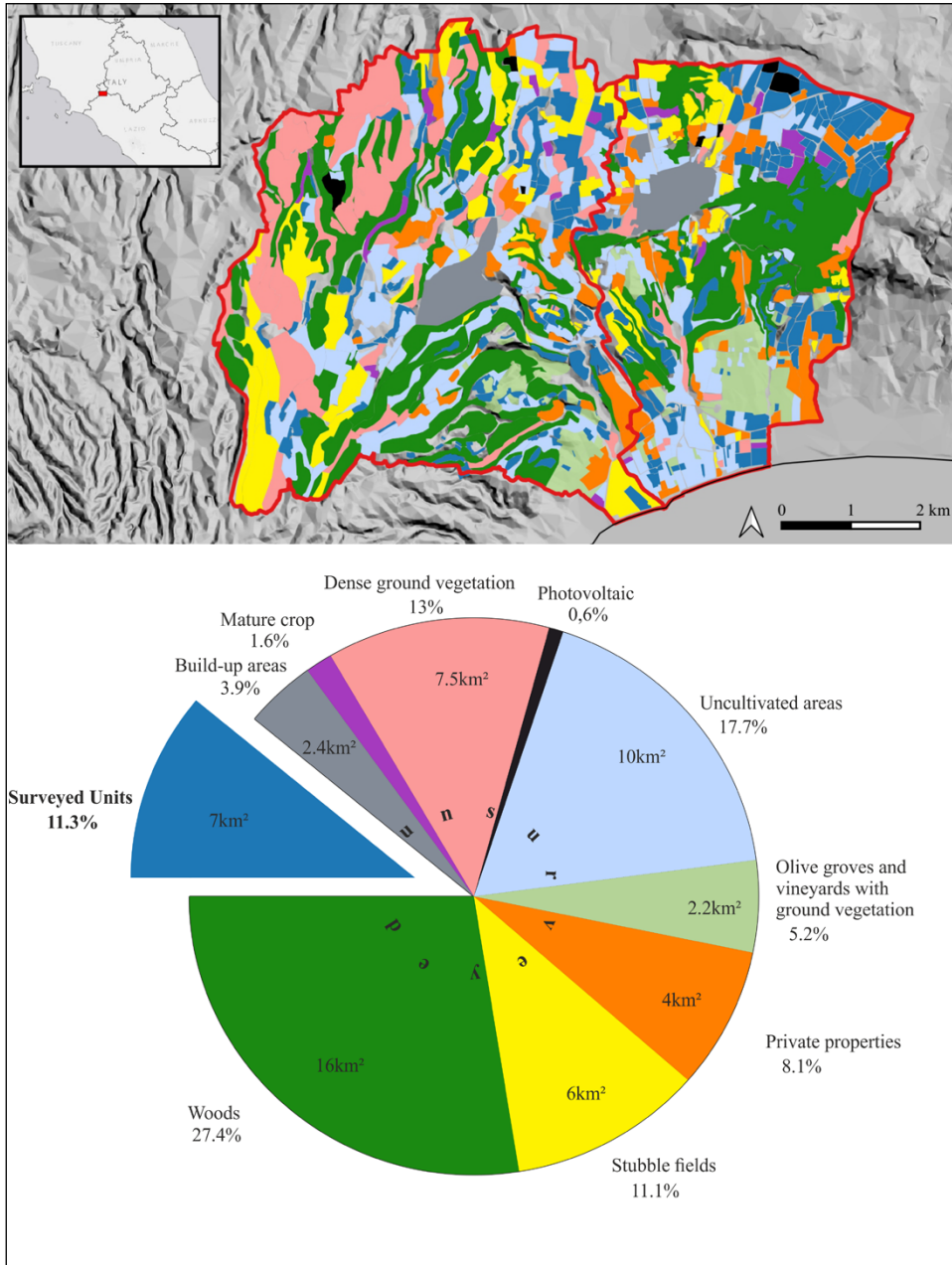


Fig. 1 – Thematic map of land use and comparison between the percentages of visible (surveyed) and non-visible (non-surveyed) areas.

3. THE WEBGIS

One of the goals of the project was to provide a tool for archaeological heritage protection and urban-territorial planning. To this end, a freely accessible webGIS was implemented (<https://qgiscloud.com/lorenzofiorillo/WEBGIS>). Since the entire GIS project for the survey had been developed using QGIS software, the online version was implemented with the QGIS Cloud plugin, which ensures smooth navigation and compatibility with all layers. As the available space on the free QGIS Cloud server is limited, the online map is an excerpt of the complete version produced during the research. It includes layers useful for the geomorphological framework of the territory (altimetry taken from the CTRN 5000 of the Lazio Region), polygons of the surveyed units, polygons and points for archaeological evidence (pottery scatter-sites, point elements), and archaeological protected areas.

4. MORPHOLOGY OF THE TERRITORY

The geomorphology of the area is characterized by the succession of three distinct landscapes along the N-S axis (Fig. 2). The northernmost consists of a broad zone of moderate undulation forming the southern limit of the Alfina Plateau (450-500 m a.s.l.). Further S, the landscape consists of volcanic reliefs shaped and bounded by watercourses. Still further S, the orography softens, reaching elevations between 310 and 304 m a.s.l., corresponding to the lake-shore zone of the Val di Lago. The dominant orographic feature is Monte Landro (585 m a.s.l.), from which not only the entire lake basin is visible, but the view extends further, from Monte Cimino to the SE, to the Monti Canino and Doganella to the SW. To the S, the relief gently slopes into the S. Angelo-Mezzagnone area (400-320 m a.s.l.), rich in light and fertile soils belonging to the pedological class of andosols (NAPOLI *et al.* 2019, 108-111; see also PACCIARELLI 2013, for the importance of these soils in the development of pre-protohistoric extensive settlement systems), derived from volcanic activity of the Vulsini complex (CERILLI 2012). In the territory of Grotte di Castro, the central hilly belt extends also to the NW. Much of the landscape, except for the Val di Lago and part of the northern plateau, shows a sequence of reliefs of varying orientation, alternating with sinuous valleys. The northwestern ones correspond to the final outliers of the northeastern slope of the Latera caldera.

5. PREVIOUS FINDS IN THE SURVEY AREA AND ITS SURROUNDINGS

Several pre-protohistoric finds around the Bolsena lake occurred over the last decades (BELARDELLI *et al.* 2007; PERSIANI 2009). The main investigations focused on the archaeological complexes of La Capriola (CAZZELLA, MOSCOLONI 1992), Civita di Arlena (RADDATZ 1983), Fondaccio-Casale Marcello

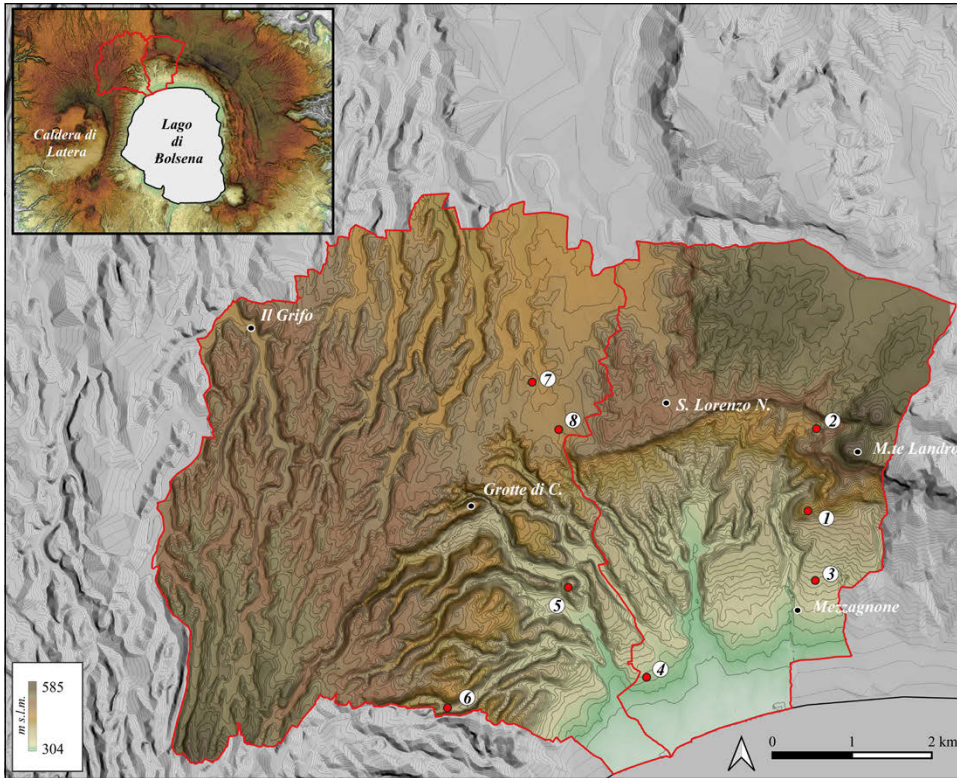


Fig. 2 – Morphology of the territory within the municipalities of Grotte di Castro and S. Lorenzo Nuovo, with indication of pre-protolithic sites. Pomele (1), Pantanice (2), S. Angelo-Mezzagnone (3), Quarti (4), Monte Maiulo (5), Butuni (6), Faciano (7), Pianinciano (8).

(PERSIANI 2009), and Montefiascone-Rocca (BARBARO 2010). At the same time, underwater research conducted by A. Fioravanti in Lake Bolsena (FIORAVANTI 1993 with bibliography) brought to light numerous findings, including the Ragnatoro and Monte Senano Sub sites on the western lakebed (Gradoli) and the remains of the Villanovan settlement of Gran Carro on the eastern lakebed (TAMBURINI 1995), where the SABAP VT-EM has recently set up a new program of systematic research (BARBARO 2021). Further discoveries over the last twenty years have involved Monte Segnale and La Montagna hills (CASI, TAMBURINI 1999) and the Capodimonte promontory (PERSIANI, CONTI 2016).

Other significant data were gathered in the Latera caldera (CONTI *et al.* 1993), where the identification of numerous archaeological sites spanning from the Paleolithic to the Late Bronze Age, combined with the excavation of some of these sites and the integration of available paleoenvironmental studies for

Mezzano lake (SADORI *et al.* 2011 with bibliography), led to a comprehensive synthesis on landscape evolution (PETITTI, ROSSI 2012). In this panorama of widespread protohistoric evidence, the absence of finds in the territory N of the Bolsena lake – between the municipalities of Grotte di Castro, San Lorenzo Nuovo, and Bolsena – appeared striking. The only certain data concerned a few fragments of protohistoric pottery from Monte Landro (CASI, TAMBURINI 1999; MAGGIANI, PELLEGRINI 2012) and the flask-shaped vase near the boundary between Grotte di Castro and Onano, in the locality Il Grifo (BERTOLANI *et al.* 1993). Further data are related to the discovery of ceramic fragments (not collected), tentatively attributed to the Iron Age, from Colle Mortaro and S. Maria delle Colonne in the territory of Grotte di Castro (BELARDELLI *et al.* 2012). In addition to the absence of documentation concerning these artifacts, a high incidence of later materials, particularly Roman, was observed in the pottery scatter areas. This Iron Age presence should therefore be considered at least doubtful.

6. NEWLY RECORDED SITES IN THE SURVEY AREA

The archaeological map of the territories of Grotte di Castro and S. Lorenzo Nuovo includes legacy data and the evidence recovered during the survey, dating from prehistory to late antiquity. For all the topographic units of archaeological interest – 68 in total, including new finds and bibliographic or archival data – detailed datasheets were prepared, including the topography of the scatter-sites, cadastral data, coordinates, and drawings of monuments (e.g. tombs) and diagnostic ceramic artifacts useful for chronological attribution (FIORILLO 2020).

The research provided significant insights for the Etruscan and Roman periods (FIORILLO, TESCIONE 2024) and allowed the discovery of new Bronze Age sites, the focus of this contribution. Eight impasto pottery scatter-sites can be attributed to the protohistoric period (Fig. 2), corresponding – according to the reconstruction presented here – to small settlements dating from the Early to the Middle Bronze Age 1-2 (21st-15th centuries BC), except for one context attributable to the Late Chalcolithic. These new finds, while leaving the gap regarding the Early Iron Age and the Late Bronze Age unchanged, significantly increase knowledge of protohistoric settlement in the northern sector of Bolsena lake, suggesting that the previous lacuna in documentation was due more to the lack of systematic research than to specific settlement dynamics (PERSIANI 2009).

6.1 *Pomele*

The hill, characterized by steep slopes on the NW and SW sides, has a summit area extended slightly beyond one hectare (Fig. 2, n. 1). On one of the hill's flanks, ceramic fragments were collected, some of which are datable to the Early Bronze Age (Fig. 3A).

6.2 *Pantanice*

Fragments of impasto pottery were found in a narrow strip of land at the base of a modest relief at the northwestern extremity of Monte Landro (Figs. 2, n. 2, 3B). Some forms are datable to the Early Bronze Age.

6.3 *S. Angelo-Mezzagnone*

The S. Angelo-Mezzagnone (Fig. 2, n. 3) area corresponds to part of a large terrace descending from the southern side of Monte Landro with moderate slopes toward the Val di Lago (Fig. 4A). Protohistoric finds indicate phases of the Early and Middle Bronze Age 1-2.

6.4 *Quarti*

The Quarti archaeological site (Fig. 2, n. 4) is located at the beginning of the Val di Lago, about 700 m from the shore, at the transition between the inner hilly landscape and the lakeside plain (Fig. 4B). Ceramic fragments indicate occupation between a late phase of the Early Bronze Age and the Middle Bronze Age 1-2.

6.5 *Monte Maiulo*

Monte Maiulo (Fig. 2, n. 5) is a small hill with a settleable summit area of about 1.5 hectares. It is isolated along all its perimeter by steep slopes (Fig. 5A). Few finds were recovered due to low visibility, among which is a fragment of a carinated bowl generically attributable to the Middle Bronze Age.

6.6 *Butuni*

Fragments of impasto pottery were scattered in a narrow strip at the northern base of a tuff ridge elevated about 30 m above the valley (Figs. 2, n. 6, 5B). The fragments are partially attributable to the Middle Bronze Age 1-2, but the presence of Early Bronze Age material is also attested.

6.7 *Faciano*

The Faciano archaeological site (Fig. 2, n. 7) was identified on the plateau NE of Grotte di Castro. Pottery fragments, found at high density and datable to the Early Bronze Age, covered an area of about 3,000 m² (Fig. 6A). In 2023, a stratigraphic excavation carried out by a research team from the University of Naples Federico II revealed the poor state of preservation of the site, reduced to a few centimeters in thickness and preserved in secondary deposition only due to a slight depression in the geological substrate (preliminary reports in FIORILLO *et al.* 2024).

6.8 Pianinciano

Pianinciano site (Fig. 2, n. 8) lies less than 1 km from the previous site, near the southern edge of the plateau. The pottery scatter-site extended 200 m in a NS direction over an area of 5,000 m² (Fig. 6B). Some fragments suggest a Late Chalcolithic date for the context.

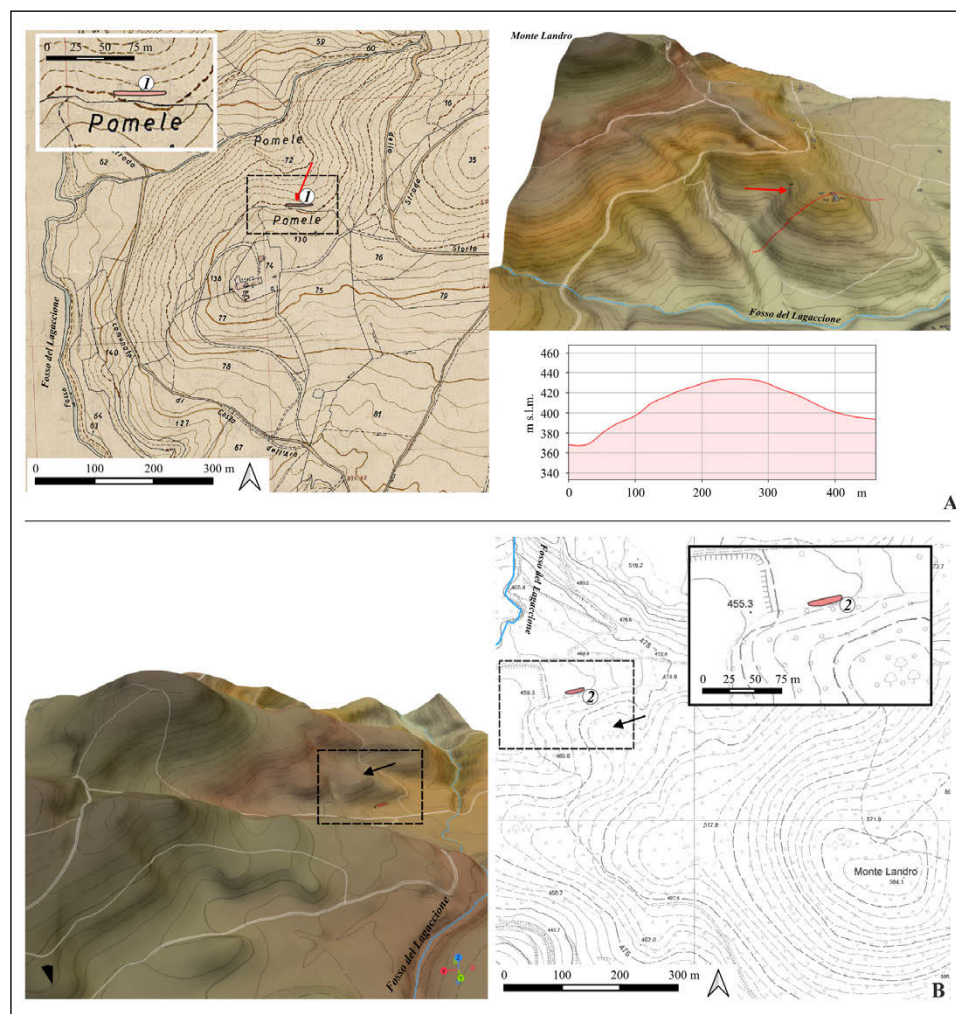


Fig. 3 – Location of protohistoric pottery scatter-site on Pomele hill (A) and at Pantanicce (B). The arrow highlights the hypothetical original location of the site.

7. INTEGRATION OF THE NEW FINDS INTO THE VULSINIAN CONTEXT

The survey carried out between 2017 and 2019 in the territories of Grotte di Castro and S. Lorenzo Nuovo greatly increased the knowledge of protohistoric settlements in the northern sector of Lake Bolsena. Most of the pottery scatter-sites, as noted, can be assigned to the period between the Early Bronze Age and the Middle Bronze Age 1-2. Only Pianinciano belongs to an earlier phase, corresponding to the Late Chalcolithic. Six settlements can be referred to the Early Bronze Age (Fig. 2, nn. 1-4, 6 ,7). For three of

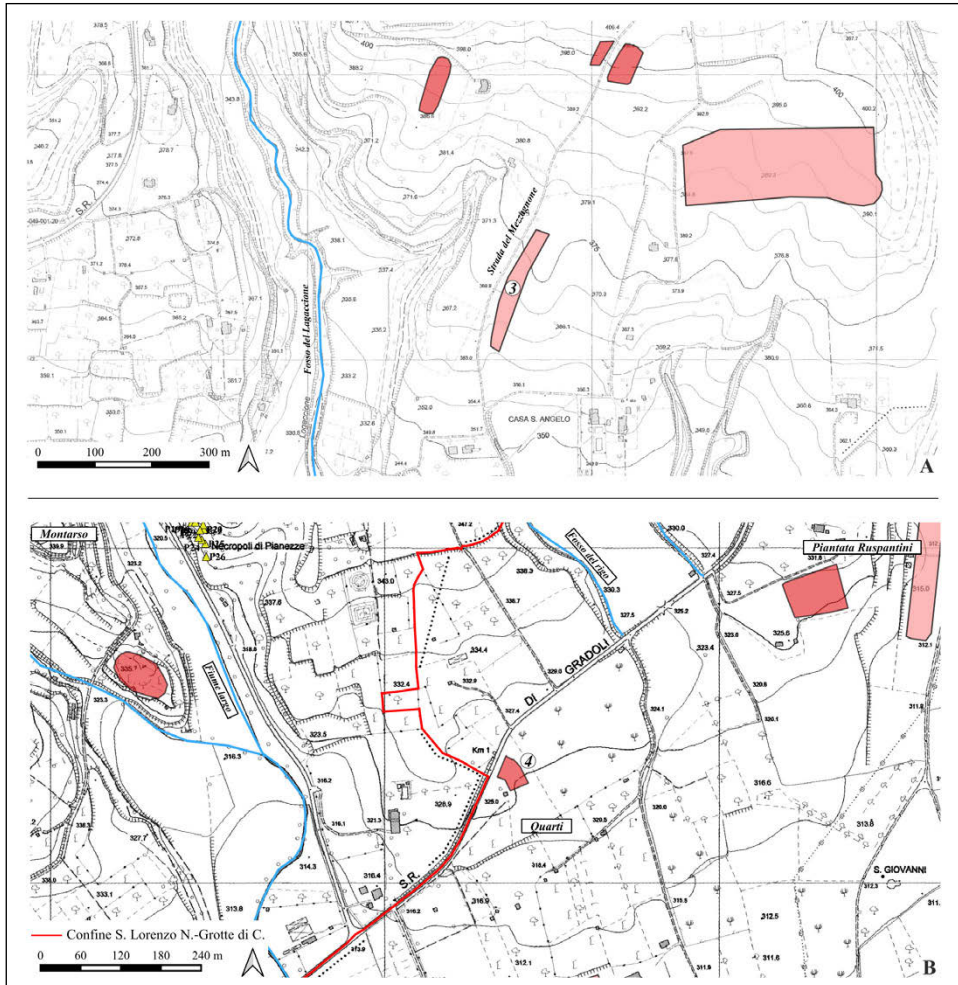


Fig. 4 – Location of protohistoric pottery scatter-site at S. Angelo-Mezzagnone (A) and Quarti (B).

these sites (Pomele, Mezzagnone, and Butuni), the Early Bronze attribution, although probable, remains uncertain. The limited extent of the pottery scatter-sites suggests the presence of small settlements, generally extended less than 1 hectare, located mostly in open landscapes. Exceptions are Pomele, on a small hill partially isolated by steep slopes, and Butuni, occupying an isolated position within a sequence of reliefs ad valleys.

An approximately 1 km equidistance separates the three sites of Pantanicce, Pomele, and Mezzagnone (Fig. 2). This could suggest a dense and

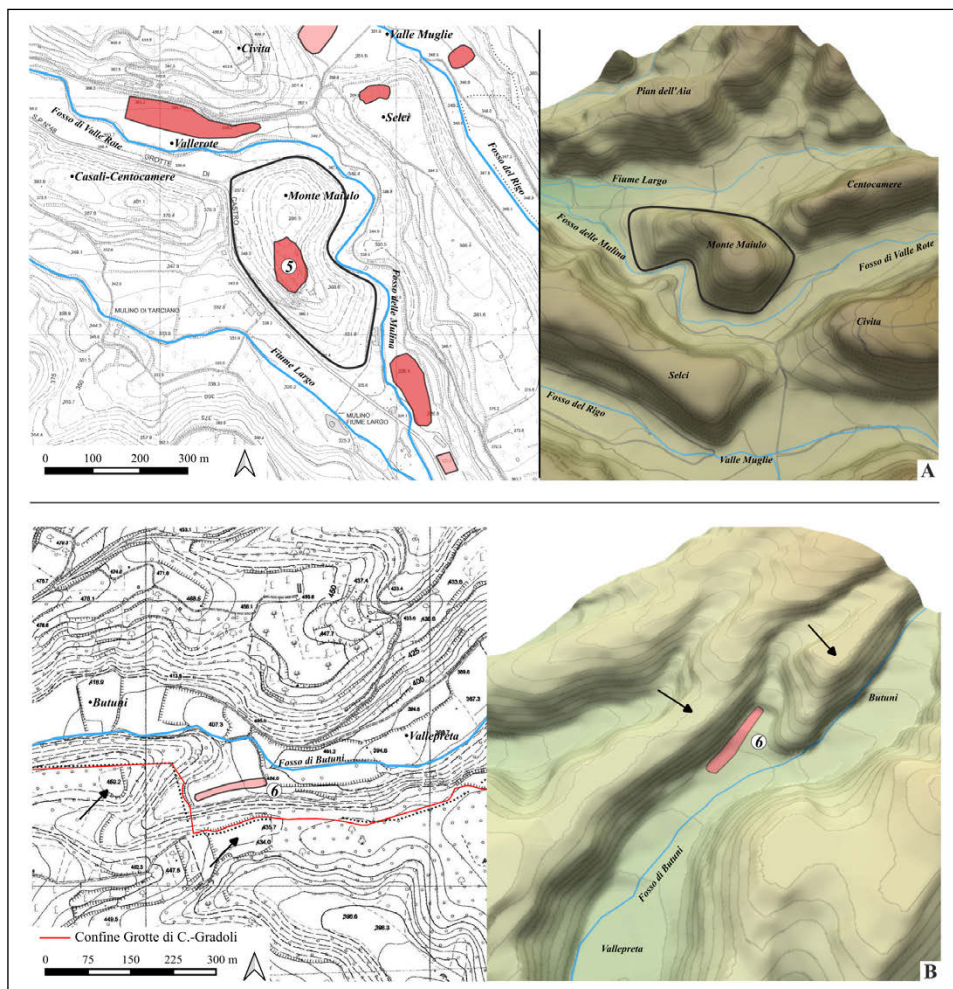


Fig. 5 – Location of protohistoric pottery scatter-site on Monte Maiulo (A) and in Butuni valley (B).

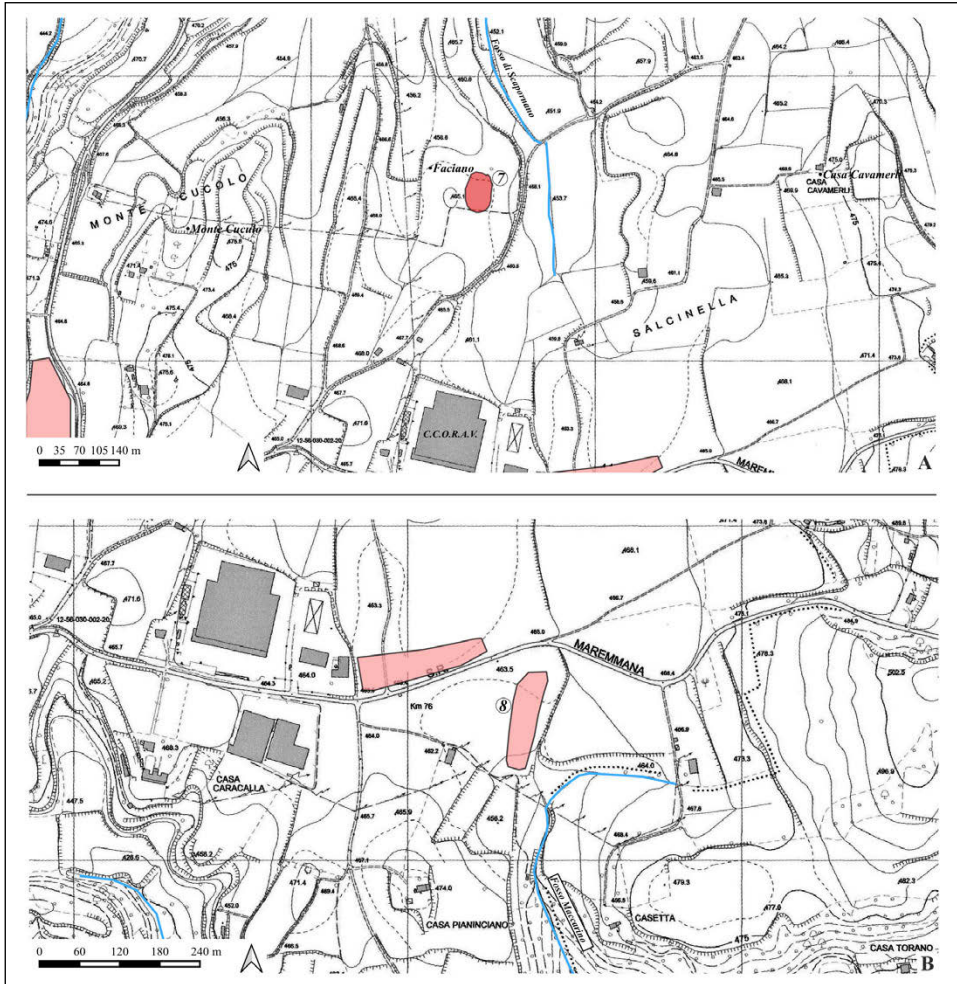


Fig. 6 – Location of protohistoric pottery scatter-site at Faciano (A) and Pianinciano (B).

somewhat regular occupation of the territory, of which only a limited portion has been revealed by research³. At the same time, it cannot be excluded that this topographic feature represents not a dense and regular settlement

³ From this perspective, the greater distance between Mezzagnone and Quarti could be explained by the failure to identify a contemporary site midway, which, however, might be suggested by sporadic fragments of impasto pottery found in correspondence with a Roman *villa* at Piantata Buccelli (FIORILLO 2020, 136, fig. 3.61), a location just over 1 km from both Quarti and S. Angelo-Mezzagnone.

system, but rather the cumulative outcome of short-lived settlement forms. Early Bronze Age settlement pattern thus consisted predominantly of open sites, without defensive potential, oriented toward exploitation of available agricultural resources. Proximity to a watercourse is also notable for the sites of Pantanicce, Pomele, and S. Angelo-Mezzagnone, located near the Lagaccione stream. There is also a correspondence between the settlements and volcanic andosols, such as those at Quarti, S. Angelo-Mezzagnone, and Faciano, which represented a primary agricultural resource.

In this context, the settlement on the Pomele hill could have had a distinct character, situated on a relief that, while not completely isolated, provided stronger defensive potential and some degree of strategic relevance. Although a more extensive data set is needed for reliable reconstructions, the protohistoric sites identified N of Lake Bolsena suggest a sparse settlement model, consisting of small settlement clusters at short distance, largely oriented toward exploitation of primary resources. This organization may either represent a system of intensive occupation and land use, anticipating the 'polynuclear' settlement model proposed for the Middle Bronze Age (PERONI, DI GENNARO 1986; PACCIARELLI 2001, 94), or, alternatively, a proliferation of small short-lived sites.

During the Middle Bronze Age 1-2 four sites are attested (Fig. 2, nn. 3-6), of which Monte Maiulo is uncertain. Open-position sites such as Quarti and S. Angelo-Mezzagnone continue, while Pantanicce and Faciano seem to have been abandoned. Pomele also shows no evidence of continued occupation, though its strategic relevance suggests that this absence may be merely apparent, reflecting the random nature of surface survey results. Notable is the new occupation of Monte Maiulo, which, although only generally attributable to the Middle Bronze Age, may be part of a process of progressive selection of sites with high defensive potential, beginning in Southern Etruria from this period onward (DI GENNARO, BARBARO 2008). Middle Bronze Age 1-2 settlement pattern appears aimed both at exploiting fertile plains and at occupying strategic positions. In summary, despite the limited sample area, the identification of eight pre- and protohistoric sites corresponding to small settlements is significant, with an average density of 1,14 sites per km² over the 7 km² systematically surveyed. Another notable element is the presence of five open-type settlements, a still poorly known class compared to hilltop sites, likely underrepresented due to the lack of high-intensity systematic surveys.

Chronologically, the Early and Middle Bronze Age phases are the most attested, with communities organized into small settlements distributed at short intervals. Later Bronze Age phases have not yet been documented; while partial population contraction cannot be excluded, it should also be considered that sites of this period may simply not have been identified due to the small extension of the surveyed area.

8. IDENTIFICATION OF PROTOHISTORIC SURFACE EVIDENCE: COMPARATIVE EXPERIENCES IN SOUTHERN ETRURIA

From the second half of the 20th century onward, the progressive increase in discoveries of protohistoric settlements in Southern Etruria reflects both the development of autonomous research – sometimes locally rooted – and the broader historical academic context, which, beginning with the pioneering South Etruria Survey (POTTER 1979), witnessed a growing interest in surface archaeology, field methodologies, data collection and analysis, and, ultimately, the reconstruction of ancient landscapes (CAMBI, TERRENATO 1994).

The more structured survey projects (STODDART *et al.* 2020, 2, fig. 1) have often been conducted on a broad diachronic scale, starting with the contributions of *Forma Italiae*, based on the 1:25.000 topographic sheets of the Istituto Geografico Militare, and continuing with large-scale projects carried out through different territorial sampling strategies. Among these, the most extensive ones in Southern Etruria (Fig. 7) were the South Etruria Survey (POTTER 1979), later re-examined within the Tiber Valley Project (PATTERSON *et al.* 2020; WITCHER 2020), the Tuscania Survey Project (BARKER, RASMUSSEN 2023), and the research project covering the area between the Albegna and Fiora river valleys (CARANDINI, CAMBI 2002).

The latter, carried out between the late 1970s and the 1980s, investigated a total surface area of 330 km² in which 1650 topographic units were identified. However, the publication, focused on territorial development from the Etruscan to the Modern Age, excluded the pre and protohistoric periods from its analysis. The South Etruria Survey, conducted between the mid-1950s and the mid-1970s, according to the synthesis by T. POTTER (1979), yielded approximately twenty sites datable to the Bronze Age across an investigation area of about 1000 km². This corresponds to an unrealistically low density that cannot be explained solely by the adopted methodology. Since the survey was extensive and widely spaced (with surveyors set 20 m apart), it is likely that smaller scatters often went unnoticed (see also DI GENNARO, PACCIARELLI 2024). On the other hand, it should be noted that surface deposits between the 1950s and 1970s, when the South Etruria Survey took place, were in much better condition than today. At that time, artifacts freshly brought to the surface by the first mechanical agricultural ploughing would have been highly visible, whereas today they are often reduced to modest scatters of small fragments, progressively dispersed and broken by agricultural activities, and hardly detectable except through very intensive survey (with spacing no greater than 5 m between surveyors).

It is therefore plausible that the investigations carried out within the South Etruria Survey was better suited to identifying remains from the historical periods, particularly Etruscan and Roman. This, combined with the low survey

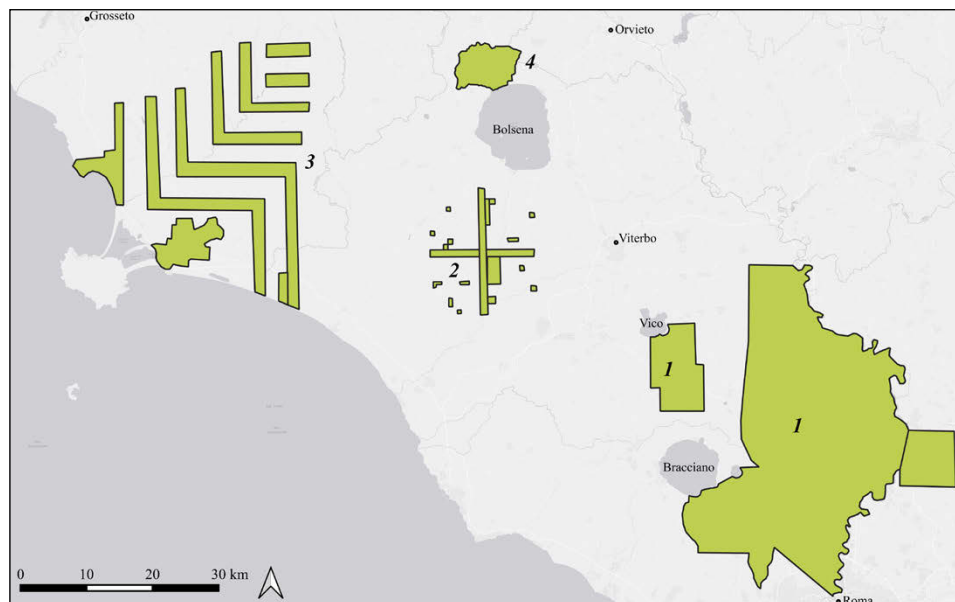


Fig. 7 – Location of survey projects mentioned in the text. South Etruria Survey (1, adapted from PATTERSON *et al.* 2020), Tuscania Survey (2, adapted from BARKER, RASMUSSEN 2023), Albegna Survey (3, adapted from CARANDINI, CAMBI 2002), North Vulsinian Survey (4).

intensity and the likely greater difficulty in recognizing protohistoric ceramics compared to Roman or Etruscan productions, may partly explain the gap in protohistoric data. Partial confirmation comes from the re-examination of a sample of sites identified by the South Etruria Survey in the *ager Veientanus* (STODDART, DI GENNARO 1982). This study highlighted the presence of some sites which, although identified, had not been classified as protohistoric. The scatters with diagnostic elements mainly date between Middle Bronze 3 and the Recent Bronze Age, while for other sites, lacking characteristic forms or decorations, only a generic attribution to pre- and protohistoric age can be suggested. Similarly, the Tiber Valley Project, in re-examining the South Etruria Survey documentation, concluded that the number of sites attributable to the Bronze Age was about twice the original estimate (DI GIUSEPPE 2020). Overall, these data confirm that the settlement density indicated by T. POTTER (1979) should be regarded as underestimated (albeit to a lesser extent than might be assumed). Given the great extent of the territory explored, it is therefore reasonable to assume that many sites went undetected.

A different case is represented by the Tuscania Survey Project (1986-1991), whose data collection method allows for a more precise comparison

with the results of the North Vulsinian Survey. The research in the Tuscania countryside, based on a sampling strategy combining transects and squares (both targeted and random), enabled systematic investigation of an area of 41,5 km², with a fixed distance of 15 m between surveyors. The chronological attributions proposed by the authors are not detailed (BARKER *et al.* 2023), grouping the finds into two broad phases: an ‘Earlier Bronze Age’, covering both Early and Middle Bronze Age (21st-14th centuries BC), and a ‘Later Bronze Age’, including the Recent and Final Bronze Age (13th-10th centuries BC). No drawings of the material from each site are presented, which prevents chronological cross-checking.

For the Earlier Bronze Age, 62 sites are reported: only one considered as definite, 25 as probable, and 36 as possible, yielding a density of about 1,5 sites per km². This estimate is not very distant – considering the differences in survey area – from that recorded N of Lake Bolsena (1,14 sites per km²). However, it should be noted that among the 62 sites of the Tuscania Survey attributed to the Early-Middle Bronze Age, some consist of just a few sherds, sometimes only one or two (BARKER *et al.* 2023, 96, tab. 4.5). Such low-density scatters were considered sporadic and were not included in the distribution maps of the North Vulsinian Survey, as they were regarded as of little significance. Consequently, the difference in site density may depend on this methodological divergence. It should also be emphasized that the settlement recorded by the Tuscania Survey appears concentrated around the Tuscania center itself, both in the earlier and later Bronze Age phases. This pattern does not allow for the reconstruction of a widespread territorial occupation of the kind proposed for the northern area of Lake Bolsena.

This brief comparison, clearly not exhaustive, is simply intended to examine, through three of the most extensive surveys conducted in Southern Etruria, the varying capacity to detect protohistoric surface evidence (especially the smaller sites) in the territories explored. At the same time, it aimed to check whether in survey areas much larger than the North Vulsinian one, there were indications of a sparse settlement system consisting in small, predominantly open sites similar to those observed in the northern area of Lake Bolsena. The results show that for two projects (Albegna Valley, South Etruria Survey) the available data are insufficient, while the Tuscania Survey produced a significant number of records for which, however, neither graphic documentation of finds nor a precise chronological framework is available. Considering the historical context of these research projects and the broader evolution of archaeological practice, including field survey, clear divergences emerge in the approaches to detecting and studying protohistoric settlement. These differences stem not only from methodological choices but also from the varying preparation of individual surveyors (BINTLIFF *et al.* 1999) and, of course, from the overall design of the projects.

Finally, it should be highlighted that reconstructing the nature of protohistoric minor sites requires targeted archaeological excavations, such as the one recently carried out in 2023 at the Early Bronze Age site of Faciano (FIORILLO *et al.* 2024). This excavation confirmed that the site was a small, short-lived settlement, while also revealing that the archaeological deposit had been subject to erosion and colluvial transport and was largely damaged by mechanical agricultural ploughing – factors which over time have likely compromised the preservation of many remains of small sparse settlements.

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ABSTRACT

A recent systematic survey project, carried out between 2017 and 2019 in the North Vulsinian area (territories of Grotte di Castro and San Lorenzo Nuovo), has partially filled the previous lack of data in the northern sector of the Lake Bolsena. The investigation, based on an intensive and systematic approach, covered about 7 km² (11% of the total area), revealing numerous new archaeological sites dating from Prehistory to Late Antiquity. This paper focuses on new settlement evidence attributable mainly to the Early and Middle Bronze Age. It clearly emerges that in order to achieve a more comprehensive understanding of protohistoric settlement patterns – particularly for the earliest phases of the Bronze Age – intensive and systematic territorial surveys are required, as they are the only means capable of detecting the most fragile and now largely eroded traces of small settlements. A similar observation also arises from the Tuscania Survey Project, while the comparison with other past survey projects highlights less attention to the issue.