

THE ASTURA AND NETTUNO SURVEYS OF THE PONTINE REGION PROJECT (2003–2005),  
1<sup>ST</sup> REPORT

P.A.J. ATTEMA, H. FEIKEN, T.C.A DE HAAS & G.W. TOL  
*Groningen Institute of Archaeology, Groningen, the Netherlands*

with a contribution by:

M. LA ROSA  
*Fondazione 'Marcello Zei', S. Felice Circeo, Latina, Italy*

**ABSTRACT:** Between 2003 and 2005 a team from the Groningen Institute of Archaeology (GIA) of the University of Groningen conducted systematic field surveys in the immediate surroundings of Nettuno in South Lazio as well as in the lower Astura valley to the southeast of that area. Nettuno is located on the Tyrrhenian seaboard approximately 50 km south of Rome. The surveys are part of the GIA's Pontine Region Project, a landscape archaeological project studying the long term settlement and land use patterns in the Pontine coastal plain and Lepine mountains. The Astura and Nettuno surveys have yielded valuable data on prehistoric to Roman presence in a part of the Pontine Region that is under high pressure from present-day urbanization and agricultural land improvements, which are rapidly wiping out what still remains of a formerly rich archaeological record.

Part of the research consisted of revisits to ceramic sites in the Astura valley that were mapped by the Italian archaeologist Fabio Piccarreta in the late 1970s. The results of these revisits are discussed and evaluated in tandem with the results from the systematic surveys. The presence of protohistoric and Roman rural sites in the survey area is related to the protohistoric towns and later Roman colonies of *Antium* and *Satricum*. The former is located west of Nettuno on the Tyrrhenian seaboard, the latter is located 17 km inland from the mouth of the river Astura.

In this report the lithic industry discovered in the Astura and Nettuno campaigns of 2003-2005 is published and discussed as well as the ceramic data of the Astura campaign of 2003. Sites and artefacts are presented in appendices. A second and final report, to be published in the next issue of *Palaeohistoria*, will present the ceramic data of the surveys of 2004 and 2005.

**KEYWORDS:** Central Italy, Pontine region, Pontine Region project, Astura, archaeological survey, protohistoric settlement patterns and land use, Roman settlement patterns and land use, lithic studies, Pontinian Mousterien, pottery studies.

## 1. INTRODUCTION

The aim of the Astura and Nettuno surveys is to gain insight into the nature and intensity of settlement and land use in the coastal landscape of the Pontine Region from prehistory to the early medieval period. The surveys are part of the research program of the Pontine Region Project (PRP) of the Groningen Institute of Archaeology (GIA) directed by the first author. The PRP encompasses the Pontine plain and adjacent Lepine mountains (fig. 1).

The Astura survey was conducted in 2003 with the aim of mapping the archaeological surface record along the valley of the river Astura, building on earlier work carried out by the GIA in 2001 and 2002 on the

coast itself. The Astura is the most important river in the Pontine Region. It connects the area of the Alban Hills with the Tyrrhenian seaboard and functioned as a communication route in antiquity. Halfway along it, the site of *Satricum* is situated, a flourishing Iron Age to Archaic settlement excavated by the universities of Amsterdam and Groningen (Maaskant-Kleibrink, 1987; 1992; Gnade, 2002; 2007). In addition at the mouth of the Astura the famous Roman villa and medieval castle of Torre Astura as well as the Roman town Astura were located (Piccarreta, 1977). The survey was intended to furnish data on rural settlement connected with these sites.

In 2004, the GIA was asked by the municipality of Nettuno to edit the archaeological map of Nettuno (*Carta Archeologica di Nettuno*). For this reason the

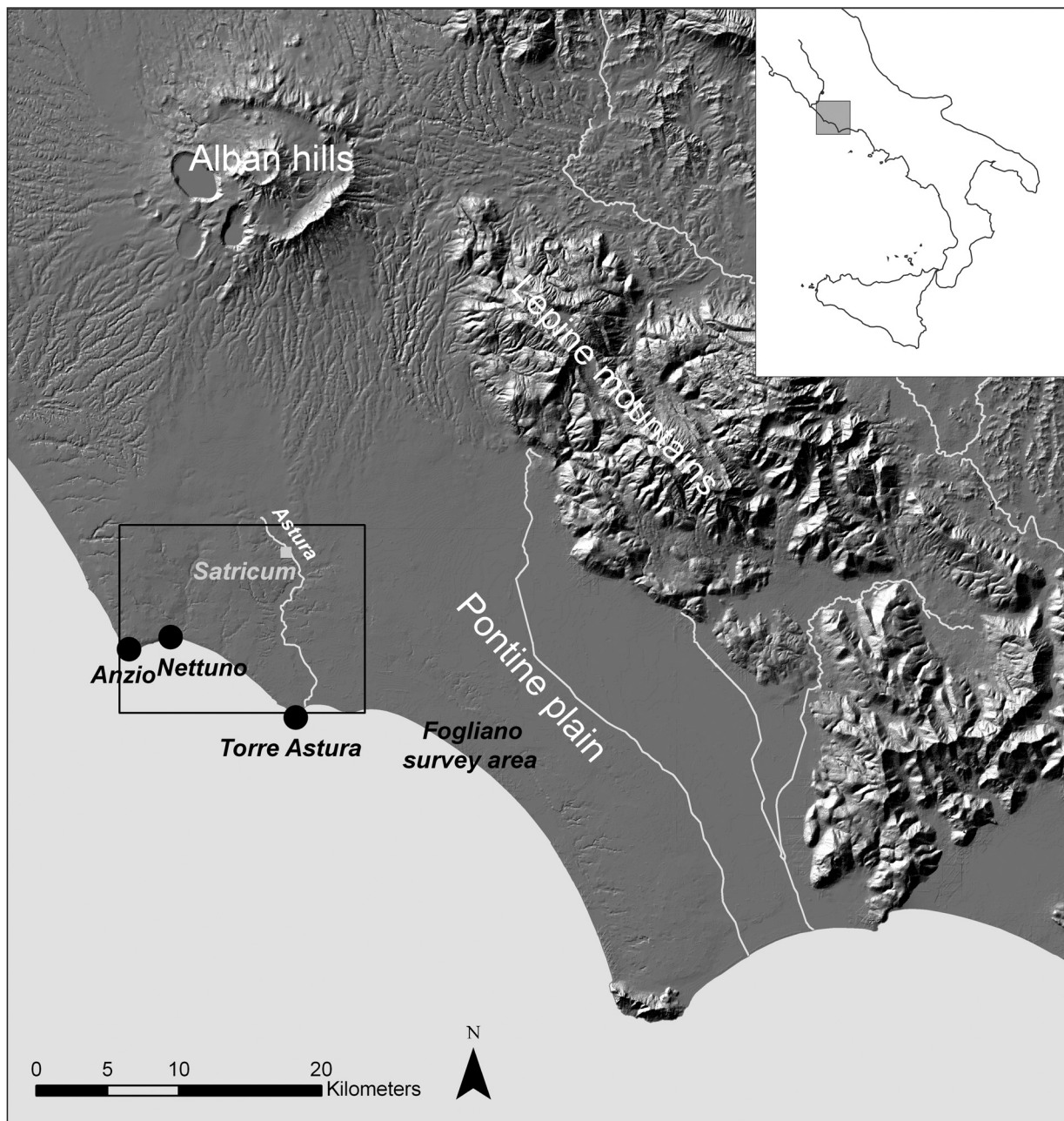


Fig. 1. Location of the fieldwork area (GIA).

surveys were extended into the territory of the municipality, which comprises part of the hinterland of the protohistoric settlements of *Satricum* and of Anzio, which in the Roman period would become the colony of *Antium* (fig. 1). Work on the *Carta Archeologica* was carried out in conjunction with the study of a large collection of ceramic artefacts from the territory of Nettuno, present in the local Antiquarium. The *Carta Archeologica*, including the collection, will be

published separately as a book.<sup>1</sup>

A further aim of the surveys was to map the prehistoric surface record of the area. The coastal area of the Pontine Region is well-known for its rich prehistoric archaeology and in the past various Palaeolithic sites have been excavated in the survey area. The Astura and Nettuno surveys offered the opportunity to view these sites in the context of a continuous frequentation of the coastal zone as a whole, as indicated by the sur-

face distribution of lithic artefacts over the landscape. This was done in collaboration with the *Fondazione 'Marcello Zei'* based at S. Felice Circeo.

In this report we publish the lithic artefacts of both the Astura survey (2003) and the surveys carried out in the Nettuno area (2004 and 2005). This covers all lithic data collected up to the moment of writing. As far as the ceramic record is concerned we publish only those sites that were recorded in the Astura survey of 2003. The sites found in the systematic surveys of the campaigns of 2004 and 2005 will be reported on in the second and final report.

The report starts with a description of the landscape of the survey area (section 2), followed by a discussion of the lithic artefacts found in the Astura and Nettuno surveys 2003–2005 (section 3) and the ceramic data from the Astura 2003 survey (section 4). Sections 3 and 4 both have appendices, in which the archaeological artefacts and sites discussed are catalogued. In section 4, a period by period evaluation of the ceramic sites found in the Astura 2003 survey is also given. Section 5 presents conclusions that can already be drawn, while section 6 comments on further work that is being done, and will be done with the data in the future.

## 2. LANDSCAPE

The area where the Nettuno and Astura surveys were carried out is located in the coastal part of the Pontine Region. To the north the survey area is delimited by the Pontine graben and the area of volcanic sediments from the Alban hills, to the west by the valley of the Loricina (or Fosso del Quinto), and to the east by the Fosso Moscarello. The most important river in this area is the Astura that drains the area to the south of the Alban hills and flows into the Tyrrhenian sea at Torre Astura. In the Early- and Middle Pleistocene, tuffs and lava from the Latial volcano (the Alban Hills) were deposited in the drainage basin of the Astura. Upstream, the Astura has a dendritic drainage system of several small rivers that come together near Borgo Montello. From this point the Astura flows in a wide valley, incised by a forerunner of the Astura during the colder phases of the Würm as the sea retreated. In the Holocene this valley was covered with colluvial-alluvial deposits and peat in which the Astura created its present stream bed.

The remainder of the fieldwork area consists of *duna quaternaria antica* or older dunes (fig. 2a) (Beneo, 1963). Seacliffs are visible along the coast between Torre Astura and Nettuno, and at some pla-

ces, for example at Le Grottacce, tuffs and older fluvial sediments are outcropping in these cliffs. Tuffs are also outcropping in the valley of the Loricina at Campana and in the northern part of the Astura valley. To the southeast of the Astura the older dune area has been intensively studied by Sevink and his students (Sevink *et al.*, 1982; Sevink *et al.*, 1984: 135–136; Sevink *et al.*, 1991; fig. 2b). They describe the older dunes as part of an old marine beach ridge system with associated aeolian deposits. Four different levels are discerned, from youngest to oldest: the Terracina, Borgo Ermada, Minturno en Latina-complexes. The oldest level, the Latina-complex, was formed  $560,000 \pm 10,000$  years ago. The youngest level (Terracina-complex) was formed during the Holocene. The fieldwork to the east of the Astura was done on the Latina, Minturno and Borgo Ermada levels, which consist of beach ridges and lagoons and have both clayey and sandy soils, locally covered by aeolian sands (Kamermans *et al.*, 1979: 19). The landscape is, in general, undulating with some level areas and elevations vary between 5–27 m. The characteristics of each marine terrace have been summarized in table 1. Because the physiographic soil survey by Sevink stopped at the east bank of the Astura there is no detailed information on the older dune area between the Astura and the Loricina, but it is highly likely that the older marine complexes can also be found in this area. The soils of aeolian origin are considered to have been suitable for cultivation from the Bronze Age up to the Roman Period (Attema *et al.*, 1999/00: 151–153; Van Joolen, 2003: 129–152).

Recent human impact on the landscape is substantial due to reclamations which took place in the 1930s and since then. This has affected the valleys most; parts of both the Astura and Moscarello rivers have been canalized and this profoundly altered their riverbeds and immediate environs (fig. 3). The lake of Sant'Antonio, which on the 1959 IGM map still is visible, is nowadays filled up. Large scale soil removal has taken place along the former lake shores to fill up the lake. Soil improvement schemes have also affected the transitional area between the Minturno and Latina levels (Snoek & Van de Giessen, 1985: 24). Besides land improvement schemes recent urbanization is also taking its toll. Villages are extending their territories, new farmhouses are being built and part of the survey area now accommodates a provincial garbage dump. But even in those areas where recent human impact on the landscape has been less devastating for the archaeological record, there is damage as a result of intensive ploughing of the soil (see also section 4).

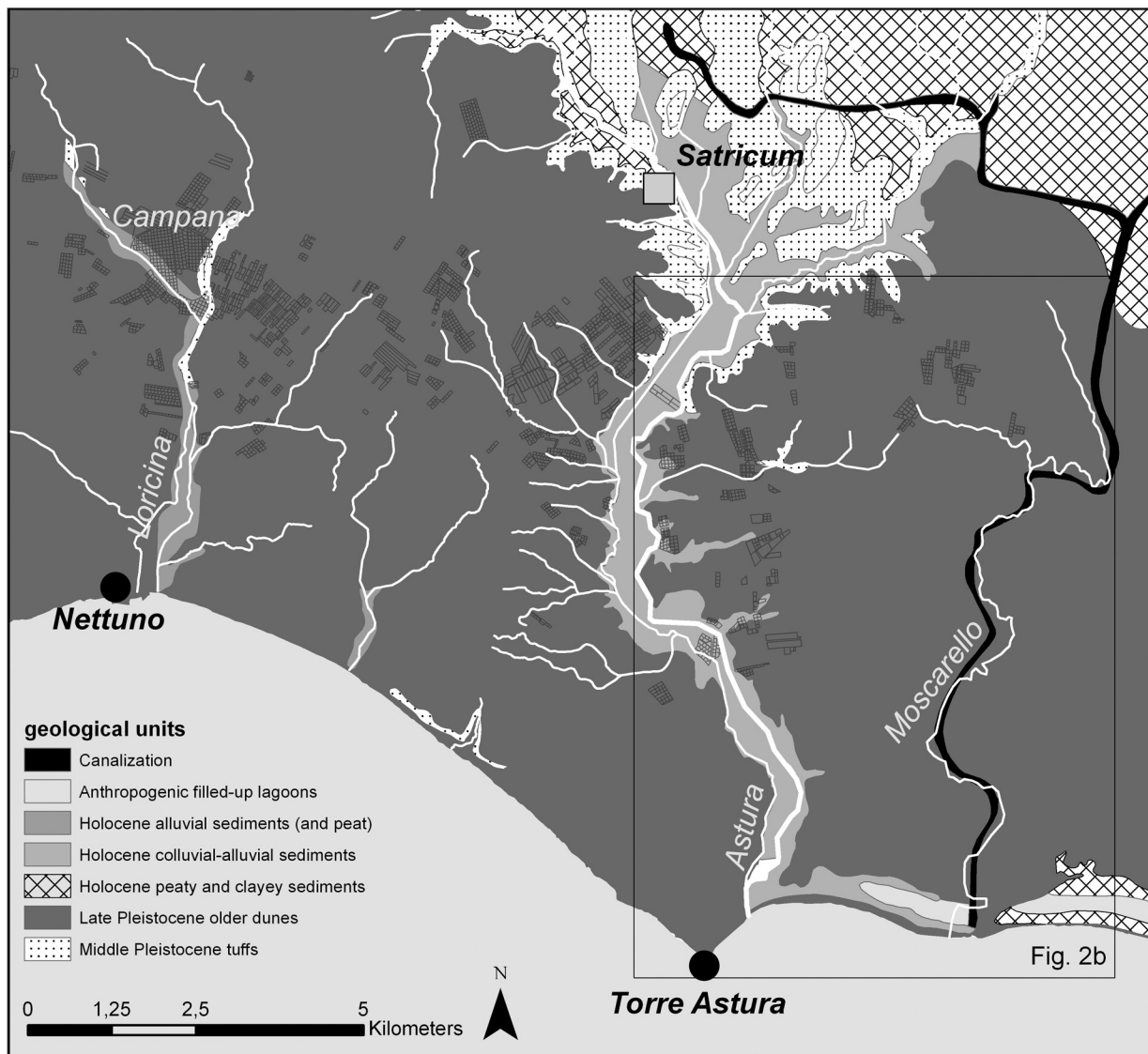


Fig. 2a. Geological units in the fieldwork area (Modified after Beneo, 1963).

### 3. THE LITHIC INDUSTRY FROM THE ASTURA AND NETTUNO SURVEYS (2003–2005)

In this section we present the evidence for prehistoric occupation in the Astura valley and the Nettuno area. We first give an overview of studies on the prehistory of the area. Next, the methodology of the so-called block survey is explained. This is followed by a discussion of the lithic industry found in the Nettuno and Astura survey blocks. An overview of the lithics from the block surveys is presented in appendix 1 and 2; the first appendix concerns the finds of the Astura survey (2003), the second concerns the lithics found in the Nettuno surveys (2004/2005).

#### 3.1. Previous studies on the prehistory of the Astura valley and the Nettuno area

The first investigations into the prehistory of the area go back to the second half of the 1930s when Alberto Carlo Blanc found evidence for Mousterian lithic industry associated with strata of flint pebbles in the so-called “red sands” of the pleistocene dunes, which lie exposed by marine erosion along the coast south of Nettuno. The material found by Blanc came from the dune formation of Cretarossa that from San Rocco extends towards the Foglino river (fig. 6, site 15235).

In the zone of Le Grottace, Blanc found lithic industry dating to the Upper Palaeolithic (Blanc, 1937;

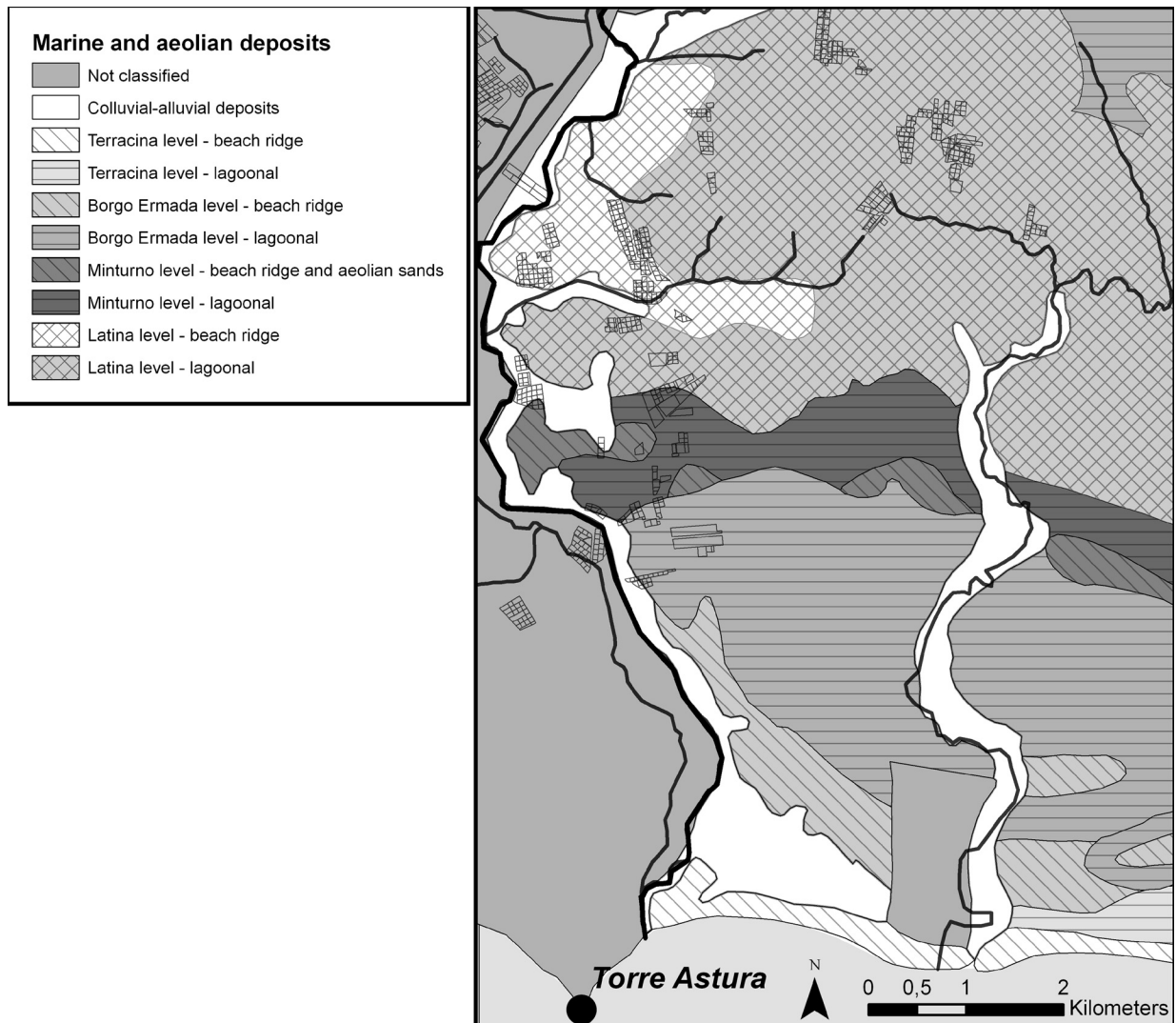


Fig. 2b. Marine and aeolian deposits of the Terracina, Borgo Ermada, Minturno and Latina level (After: Sevink *et al.*, 1991).

the location of the site is unknown). Nowadays the once splendid formation of San Rocco has been totally obliterated by the urban expansion of Nettuno. The Mousterian industry that Blanc found has the characteristics of the Pontinian culture as defined by him (1939). This is a particular Middle Palaeolithic local way of manufacturing tools out of the siliceous small pebbles found in the sediments of the Agro Pontino.

About forty years later, in 1971, Edoardo Borzatti von Lowenstern of the *Laboratorio di Ecologia del Quaternario* of the University of Florence made a short visit to the littoral quaternary formations in the Vallone Carnevale, located within the *Poligono Militare*, a military base of c. 25 km<sup>2</sup>. At that time he discovered a rich Middle Palaeolithic site of the

Pontinian Mousterian (fig. 6, site 15236). Circa 1500 artefacts were collected in a small area of about 100 m in diameter indicating the existence of a spatially clearly defined site (Borzatti von Lowenstern & Barsottini, 1983).

In 1989 Paola Ansuini and the fifth author of the present paper published the prehistoric site at Le Grottacce which they attributed to the Epigravettian culture. The lithic industry of this site consisted of circa 1400 artefacts found in an area of only a few tens of m<sup>2</sup>, in a stratum exposed by marine erosion, about 500 m south of the Roman villa remains of Le Grottacce (Ansuini & La Rosa, 1989; fig. 7, site 15238). The soil in which the lithic industry was found consisted of the yellow sands that here overlie the red sands with the

Table 1. The characteristics of the four marine terraces found southeast of Nettuno between the Fosso del Moscarello and the Astura (Snoek & Van der Giessen, 1985; De Wit *et al.*, 1987; Kamermans, 1991; Sevink *et al.*, 1991).

<i>Geology of the marine terraces</i>	<i>Dates (K is 1000 years)</i>		<i>Geomorphological complexes</i>	<i>Soil types (FAO – UNESCO types)</i>
	<i>Absolute</i>	<i>Geologic Timescale</i>		
Terracina		Holocene	Dunes	Calcaric Regosol
Borgo Ermada Level	90±15 Kyr BP	Weichsel / Würm	Beach ridge deposits	Chromic Luvisols
			Lagoonal deposits	Complex of Gleyic Cambisols, Gleyic and Albic Luvisols, solodic Planosols
Minturno Level	125 Kyr BP	Eemien	Beach ridge deposits	Chromic Luvisols
			Lagoonal deposits	Gleyic Luvisols
Latina Level	560±10 Kyr BP	Middle Pleistocene	Beach ridge deposits	Chromic Luvisol
			Lagoonal deposits	Gleyic Luvisols
				Solodic Planosols
				Complex of Chromic Vertisols and Gleyic Luvisols



Fig. 3. Canalized riverbed of the Fosso del Moscarello (GIA).

<i>Textural classes</i>	<i>Drainage classes</i>	<i>Slope classes</i>	<i>Altitude (m)</i>
Coarse textured	Somewhat excessively drained – excessively drained	Level to gently rolling – rolling to hilly	0 – 5 m
Medium Textured	Well drained	Level to gently rolling	3 – 7 m (east) 5 – 10 m (west)
Coarse textured	Poorly – imperfectly drained	Level to gently rolling	7 – 10 m
Medium textured	Well drained	Level to gently rolling	15 – 20 m
Fine textured	Imperfectly drained	Level to gently rolling	15 – 20 m
Medium textured	Well drained – somewhat exces- sively drained	Rolling to hilly	21 – 27 m
Coarse textured – medium textured	Imperfectly drained	Level to gently sloping	> 25 m
Coarse textured	Imperfectly drained	Level to gently sloping	
Medium textured – fine textured	Poorly drained – moderately well drained	Level to gently sloping	

Pontinian Mousterian lithic industry (La Rosa, 2004).

In the 1980s, levelling activities for new vineyards in the area of Quarto delle Cinfonare on the west bank of the Astura river brought an important quaternary stratigraphic sequence to light as well as an important site of the Lower Palaeolithic dating to between 500.000 and 300.000 BP (Peretto *et al.*, 1997; fig. 6, site 15252).

Surface investigations during the last decennia in the northern part of the Agro Pontino by Arnaldo Liboni resulted in the identification of a number of Palaeolithic sites and the collection of a huge number of lithics that are now kept in the Antiquarium of Nettuno. In the Nettuno area large concentrations of Pontinian lithic industry were found at La Seccia and Foglino-Colle Antinoro (La Rosa *et al.*, 1989/90; Vianello *et al.*, 1995; Mantero, 2003; the location of La Seccia is unknown, but for Foglino, see fig. 6, site 15255). In addition, a site of the Upper Palaeolithic was found between Borgo Sabotino and Valmontorio on the eastern bank of the Astura river (La Rosa, 2002; fig. 7, site 15256). Sporadic finds are reported from the locations Astura (fig. 6, site 15239) and Saracca (fig. 7, site 15237). One of the transects of the University of Amsterdam's Agro Pontino survey cross-cuts the Astura valley (Voorrips *et al.*, 1991; Holstrom *et al.*,

2004). During this survey, much Palaeolithic material was collected, mainly of Upper Palaeolithic and, to a lesser degree, Middle Palaeolithic, while a few later prehistoric finds were made (Holstrom *et al.*, 2004: site index 2-1).

In 2001, during the excavation of the Bronze Age site P13, south of Le Grottaacce (Nettuno), by the GIA a small trench was dug in the red sands at the base of the small cliff on which P13 is located. These investigations verified the presence and stratigraphic position of Pontinian lithic industry in the Pleistocene fossil dune formations (Attema *et al.*, 2003; fig. 6, site 11213).

### 3.2. Field methodology of the Astura and Nettuno surveys

In both the Astura and Nettuno surveys the so-called block survey was used in mapping the surface archaeology. This method had been developed in previous GIA surveys in the Fogliano area to the south of Nettuno and in the Sibaritide in Calabria, in southern Italy (Attema *et al.*, 1999/00; Van Leusen & Attema, 2003; see also Van Leusen, 2002). To enable a detailed mapping of artefact distributions over the landscape, including the smallest artefact scatters and off-site dis-

Table 2. Composition of the lithic industry.

	<i>N</i>	%
Cores	265	25.1
Flakes and Debris	531	50.4
Blades and Bladelets	30	2.8
Tools	228	21.6
<b>Total</b>	<b>1054</b>	<b>99.9</b>

tributions of artefacts, fields were divided into units, normally of 50 by 50 m. These units were sampled systematically by walkers traversing the unit along parallel lines at intervals of ten m; assuming a total pick-up of artefacts from a two meters wide swath, this resulted in a 20 percent coverage of the surface. In total c. 816 hectares were surveyed in this way. In general, lithics occurred dispersed over the landscape rather than in concentrations that might be labeled sites; only in two cases might the density and chronology of the lithic finds indicate the presence of a site.

### 3.3. Remarks on the lithic industry found in the Astura and Nettuno surveys

It is difficult to draw conclusions from the presence of lithics found in surface contexts, since they usually belong to various periods that may widely range in time. Although it is relatively easy to classify diagnostic artefacts typologically and to attribute them to a specific chronological-cultural period, it is very difficult, and often impossible to classify atypical tools, waste, and certain types of cores. It is therefore with much caution that we connect some palethnological conclusions to the studies of the lithic material.

The surveys have resulted in a collection of 1054 lithic artefacts. (tables 2–4): 1050 flint items and four are items of obsidian. Half of the lithic industry consists of flakes and small waste flakes (*débris*), a quarter are cores, while tools number 228 (21,6%); of these, only 30 are unretouched blades and bladelets (table 2).

From a chronological and cultural point of view the lithics cover the Middle Palaeolithic (Pontinian Mousterian), the Upper Palaeolithic (Aurignacian and Epigravettian) and the Neo/Eneolithic. It should be remarked that almost half of the objects have a double patina, meaning that they have been re-retouched. Re-retouching indicates that formerly discarded tools and débitage were used as a source of raw materials for making tools. This means that the portion of the formerly discarded tool that was reworked is less patinated.

Table 3. Typological classification of the tools.

	<i>N</i>	%
Burins	10	4.4
Multiple burin	1	0.4
<i>Endscrapers</i>	<i>11</i>	<i>4.8</i>
Endscrapers on flake	2	0.9
Triangular endscraper	1	0.4
Flat nose-ended endscrapers	3	1.3
Carinated nose-ended endscraper	3	1.3
Carinated circular endscrapers	2	0.9
Rabot	1	0.4
<i>Composite tools</i>	<i>2</i>	<i>0.9</i>
Truncation-endscraper	1	0.4
Burin-endscraper	1	0.4
Retouched blades	13	5.7
Truncated tools	10	4.4
<i>Large backed tools</i>	<i>3</i>	<i>1.3</i>
Backed bladelets	1	0.4
“à cran” piece	1	0.4
Truncated backed tool	1	0.4
<i>Microliths</i>	<i>3</i>	<i>1.3</i>
Fragment of small backed tool	1	0.4
Retouched bladelets	2	0.9
Borers	12	5.3
Microborers	2	0.9
Notched tools	21	9.3
Notched blade	1	0.4

Among the tools (table 3), scrapers (22,8%) and retouched flakes (22,0%) are the most numerous, followed by notches (9,7%), denticulated tools (6,2%) and borers (6,2%).

The Middle Palaeolithic is well-represented by the Pontinian Mousterian lithic industry that is characteristic of the coastal zone of South Lazio, as discussed above (Blanc, 1939; Taschini, 1979). Key elements are side scrapers (fig. 4: Nos 1, 3–6) and Levallois flakes, a pseudo-Levallois point, a Mousterian point (fig. 4: No. 2), naturally backed knives, discoidal or centripetal cores (fig. 4: No. 7) and a number of flakes without retouch, often with a heavy patina, that clearly belong to the Mousterian typology. Among the side



Table 3 (continued).

	<i>N</i>	%
Denticulated tools	14	6.2
Point	1	0.4
<i>Sidescrapers</i>	52	22.8
Simple straight sidescrapers	5	2.2
Simple convex sidescrapers	11	4.8
Simple concave sidescrapers	2	0.9
Double sidescraper	1	0.4
Convergent sidescrapers	2	0.9
Déjeté sidescrapers	13	5.7
Transversal sidescrapers	8	3.5
Sidescraper with inverse retouch	1	0.4
Sidescraper with alternating retouch	1	0.4
Sidescrapers with bifacial retouch	3	1.3
Fragments of sidescrapers	5	2.2
Mousterian point	1	0.4
Levallois flakes	8	3.5
Pseudo-Levallois point	1	0.4
Naturally backed knives	3	1.3
Retouched flakes	50	22.0
Chopping tools	3	1.3
“Esquillé” tools	2	0.9
Leaf-shaped tool	1	0.4
Tools obtained from obsidian	2	0.9
<b>Total</b>	<b>228</b>	<b>100.0</b>

scrapers (52), there is a larger number of simple side scrapers (18), followed by déjetés (13) and transversal (8) side scrapers.

Human presence during the Upper Palaeolithic is attested by blade/bladelets cores, blades (fig. 5: No. 4) and bladelets with and without retouch, endscrapers, burins (fig. 5: Nos 9–10), composite tools (fig. 5: No. 11), truncated tools (fig. 5: No. 6), large backed tools (fig. 5: No. 6), microliths and a fine example of a point (fig. 5: No. 8). Within the latter group we can discern carinated circular (fig. 5: No. 2) and nose-ended (fig. 5: No. 1) endscrapers and a *robot* that recalls the Aurignacian culture found in the Fossellone cave at Monte Circeo (Blanc & Segre, 1953), while the bla-

Table 4. Débitage characteristics.

	<i>N</i>	%
<i>Cores</i>	264	32
Flake cores and fragments	171	20.7
Blades cores	11	1.3
Bladelets cores	15	1.8
Discooidal and “protocentripetal” cores	31	3.7
Levallois core	1	0.1
Flaked pebbles	24	2.9
Chopping tool type cores	11	1.3
<i>Blades and Bladelets</i>	30	3.6
Blades (unretouched)	16	1.9
Bladelets (unretouched)	11	1.3
Crested blades	3	0.4
<i>Flakes</i>	437	52.9
Flakes (unretouched)	428	51.8
Flakes of Mousterian type	9	1.1
<i>Debris</i>	93	11.2
Débitage made on obsidian	2	0.2
<b>Total</b>	<b>826</b>	<b>99.9</b>

delets cores, the triangular scraper (fig. 5: No. 3), the microliths (fig. 5: No. 5) and the “à cran” piece (fig. 5: No. 7) may well belong to the final phase of the Upper Palaeolithic (Epigravettian).

The presence of four obsidian artefacts and a leaf-shaped tool seems to indicate sporadic human presence during the Neo/Eneolithic period.

The “Mousterian group” (sidescrapers, levallois flakes, naturally backed knives, Mousterian point, pseudo-Levallois point) has, with 28.4%, slightly more tools than the “Upper Palaeolithic group” with 24% (burins, endscrapers, *robots*, composite tools, truncated tools, retouched blades, large backed tools, microliths, point). This is also true for the cores in the otherwise little differentiated find complexes (table 4). Slightly more (32) Mousterian cores (discooidal, “protocentripetal” and levallois cores) were found than blade/bladelets cores (26).

#### 3.4. Concluding observations on the lithic record

The wide dispersal of the lithics over the territory (figs 6 and 7), and the relative scarcity of artefacts force us to evaluate these materials as residual. This indicates an overall human presence in the territory during

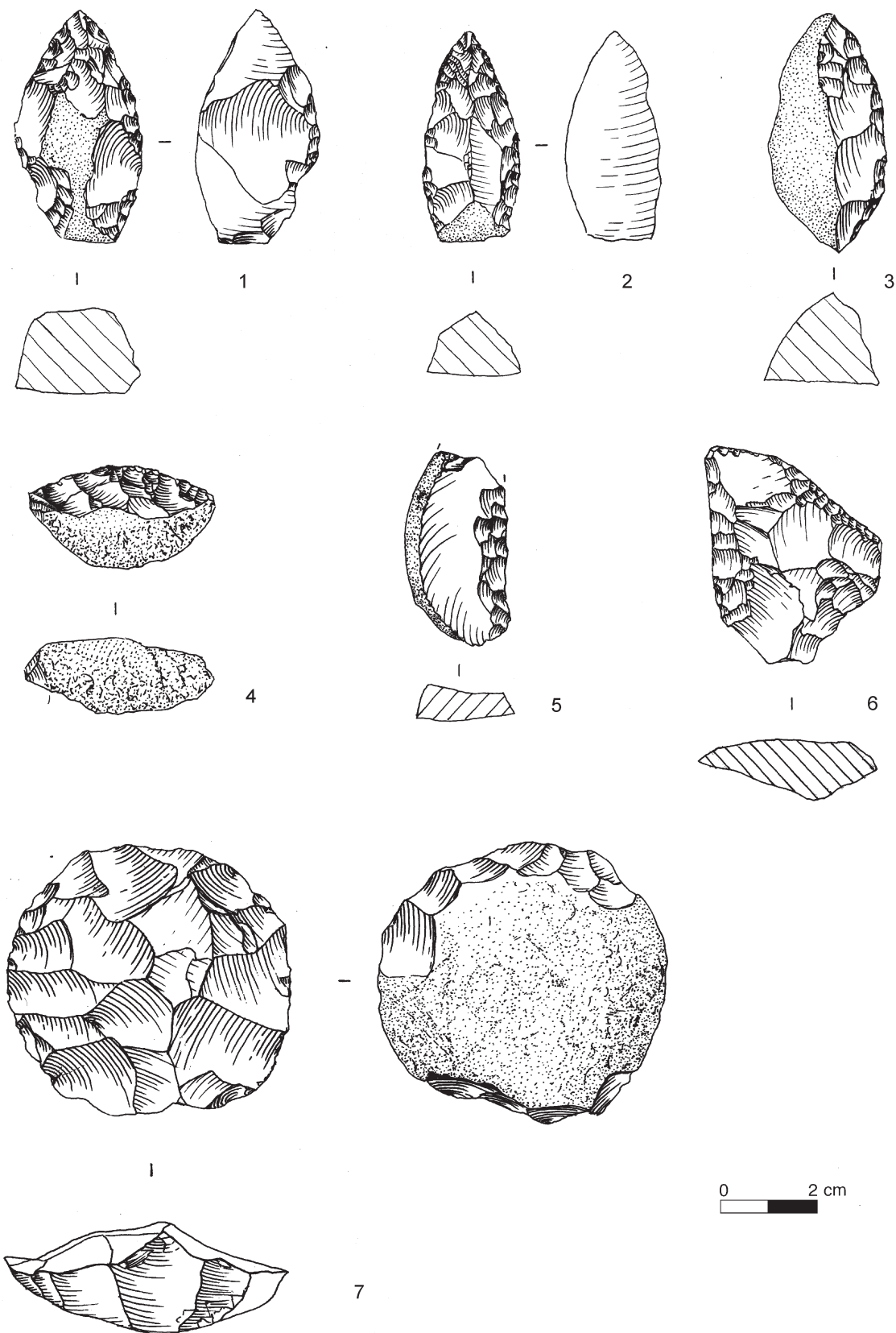


Fig. 4. Lithic artefacts from the Astura and Nettuno surveys (D. Aureli).

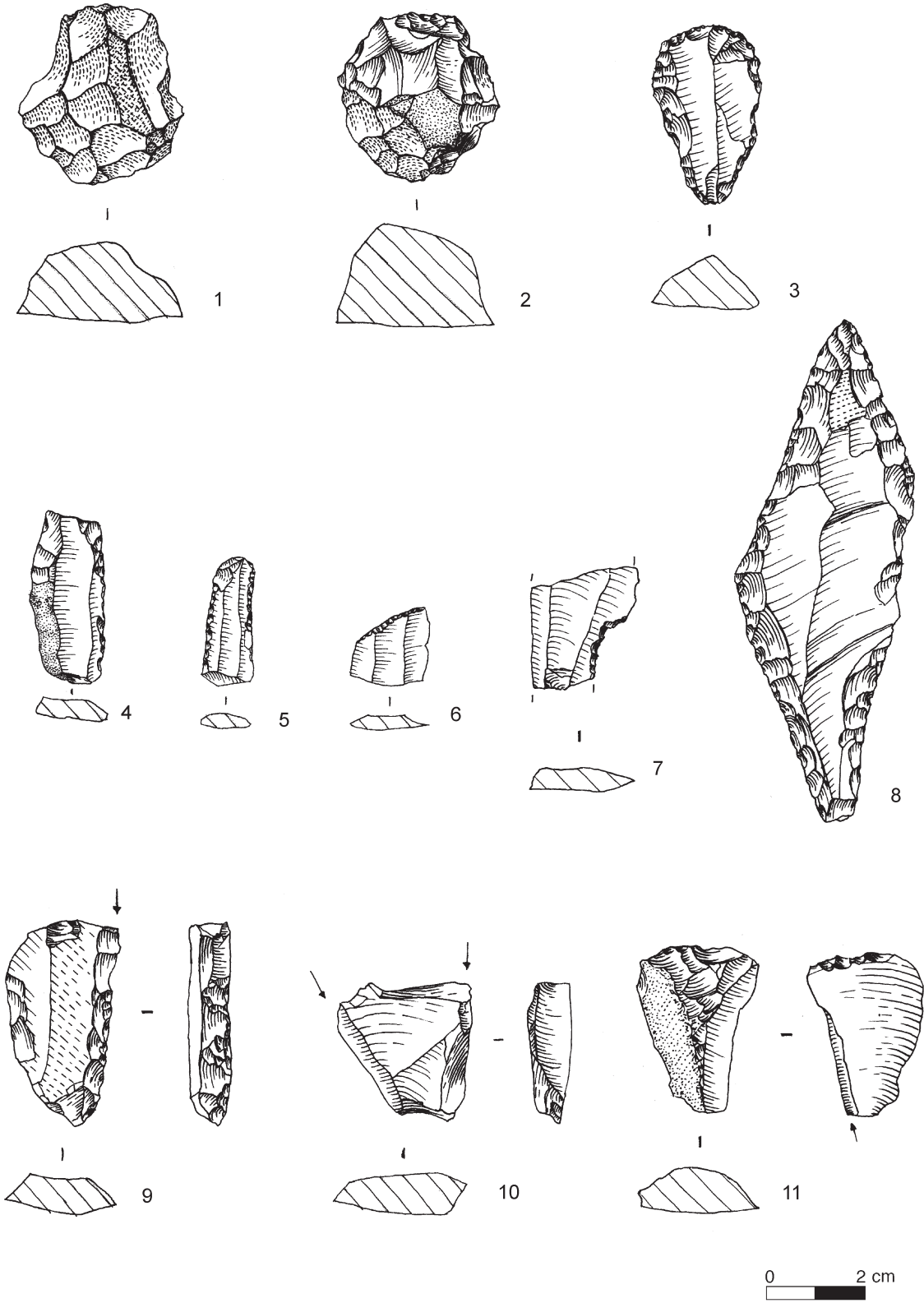


Fig. 5. Lithic artefacts from the Astura and Nettuno surveys (D. Aureli).

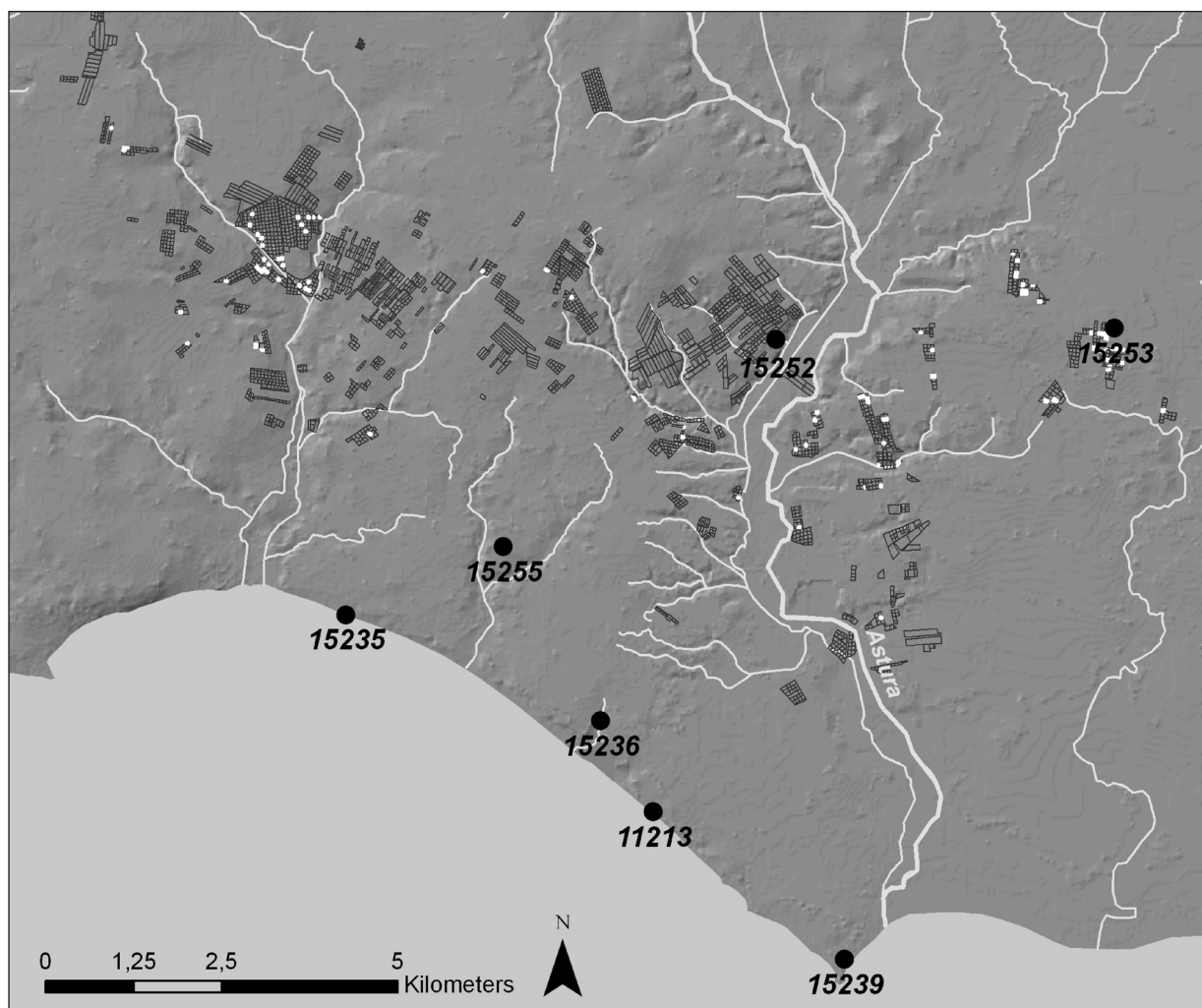


Fig. 6. Distribution of Middle Palaeolithic artefacts (white blocks) with sites from previous studies (GIA).

prehistory, above all in the vicinity of water courses (present-day fiume Astura, fosso della Speranza, fosso del Quinto, fosso dell'Armellino, fosso dello Sbirro and fosso della Seccia). Only in the area of Piano Rosso, east of the river Astura was a concentration of lithic materials observed (fig. 8). Here two areas with a more dense distribution of surface materials were found. In the first, called Piano Rosso 1 (15253 in figs 6 and 7 – which corresponds with blocks 6145 to 6147, 6149 to 6151, 6179 and 6180) 62 objects were collected, among which were 23 tools that could be ascribed to the Middle and the Upper Palaeolithic. From the second zone, somewhat smaller than the first (less than two hectares), and referred to as Piano Rosso 2 (15254 in fig 7: blocks 6283 to 6290 and 6143) came 64 pieces, among which 11 tools that belong to the Upper Palaeolithic. Further investigations and surface collections will be necessary to verify whether we are

dealing here with individual sites or one large site.

We may conclude that the lithic industry found in the surveys is not only indicative of regular frequentation of the area by Neanderthal people (Pontinian Mousterian) but also by human groups of the early Upper Palaeolithic (Aurignacian) and the Epigravettian culture. Obsidian artefacts and the leaf-shaped tool would seem to indicate at least occasional visits to the zone during the Neo-Eneolithic (cf. Holstrom *et al.*, 2004: site index 2-1).

#### 4. THE CERAMIC RECORD OF THE ASTURA 2003 SURVEY

This section presents the archaeological evidence for the protohistoric and historic periods in the Astura survey of 2003. It starts with an overview of protohistoric

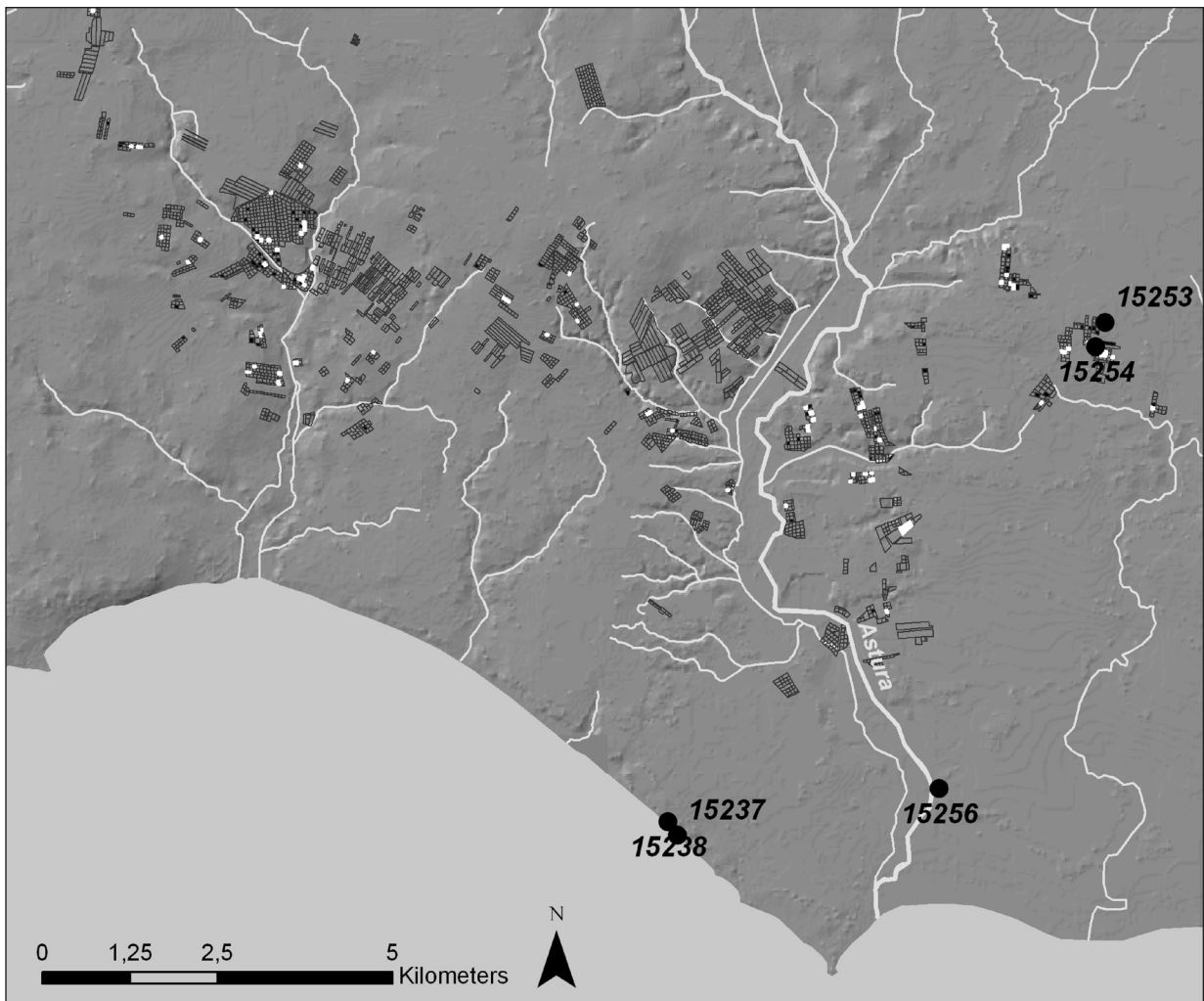


Fig. 7. Distribution of Upper Palaeolithic artefacts (white blocks) with sites from previous studies (GIA).

and Roman studies in the Astura valley, after which the methods and results of the Astura survey are discussed with regard to the ceramic record; the ceramic record itself is presented in appendix 3. Finally, an evaluation of the main results is given period by period.

#### 4.1. Previous studies on protohistorical and Roman settlement in the Astura valley

Systematic research on protohistoric and Roman settlement in the Astura valley started in the 1970s with Fabio Piccarreta's inventory of archaeological sites. Piccarreta compiled his inventory on the basis of field observations as part of the *Forma Italiae*, a topographical series that aims at a full coverage of Italy's archaeological sites on 1:25.000 maps of the Istituto Geografico Militare (IGM) (Piccarreta, 1977; see fig 9a). Another important study is the publication of the

excavation of the Bronze Age site of Casale Nuovo, located on an elevation along the Astura valley, less than 5 km inland from the river's mouth (Angle *et al.*, 1992). Earlier work by the GIA includes the excavation of a Late Bronze Age saltern northwest of Torre Astura (Attema *et al.*, 2003; Nijboer *et al.*, 2005/06) and the mapping of protohistoric and Roman exposures along the coast between Nettuno and Torre Astura (Attema *et al.*, 2003; Alessandri, 2007).

#### 4.2. Methodology of the Astura survey and ceramic studies

In the Astura survey, two different survey methods were used to map sites with ceramics. In addition to the block surveys, a program of revisits to sites previously mapped by Piccarreta was carried out (fig 9a).

The method of the block surveys was discussed in

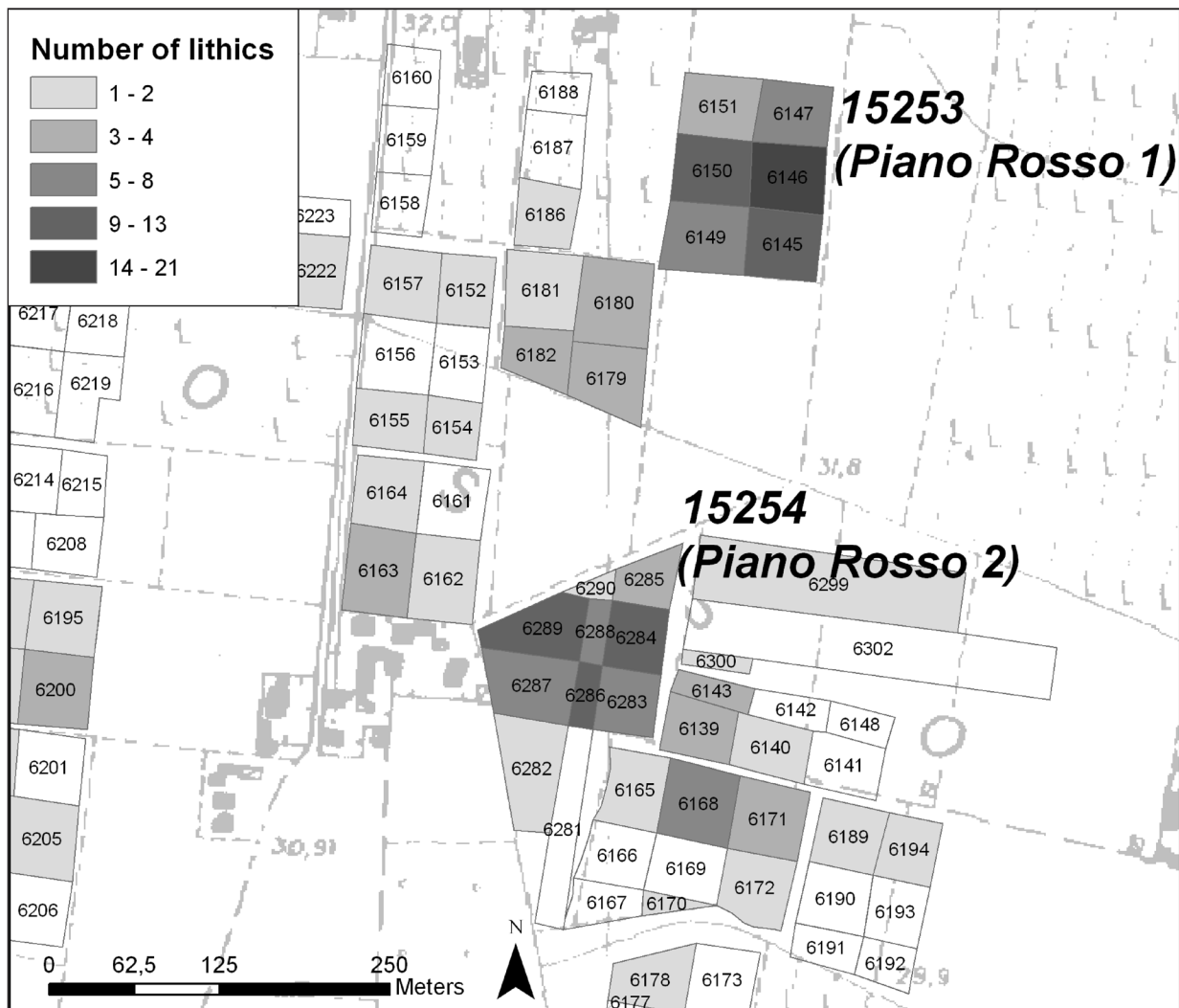


Fig. 8. Distribution of lithic artefacts in the area of Piano Rosso (GIA).

section 3.2. Using this method, c. 155 hectares (560 blocks) were covered in three field weeks with two field teams, recovering 3876 ceramic fragments (fig. 9b). The find densities were rather low, a fact that is largely due to recent agricultural practice (see section 2 above and 4.3 below). Several concentrations were however defined as sites on the basis of their high find densities compared to densities in the surrounding area (although no fixed quantitative criteria were used). In these locations, additional samples were taken to provide further information on the dating and/or function of the site. In total, four sites were thus defined (excluding the potential lithic site(s) in the area of Piano Rosso, see above), but hardly any diagnostic pottery could be collected (see fig. 9b/appendix 3: sites 15115, 15117, 15118 and 15119). The same holds for the sites mapped by Piccarreta that lie in the

surveyed area (fig. 9b/appendix 3: sites 11316, 11347 and 11378). Although several more areas had high find densities, these have not been defined as sites, but should rather be interpreted as off-site distributions that in some cases can be related to sites mapped by Piccarreta that fell outside the block survey area.

The site revisits specifically targeted sites known to us from the topographic work by Piccarreta (1977). The main aim of these revisits was to expand our knowledge of these sites, especially regarding their chronology. The method used for the site surveys varied: if visibility conditions were good, sites were surveyed in squares of 30 by 30 meters. From these squares diagnostic samples were collected at 50 to 100 percent coverage and notes on the presence of non-diagnostic pottery were taken. However, only on a few sites were survey conditions good enough to al-

low such an approach; in most cases visibility was so poor that sites could hardly be located and only small grab samples could be collected. In total, 42 sites were sampled, while one new site was discovered.

The ceramics from both the block surveys and the site revisits were studied in 2003 and 2004, using identical procedures. After washing and drying, finds were classified according to a scheme that was designed to perform a simple diachronic analysis of the finds. The classification of the ceramics consists of five basic groups (impasto pottery, building materials, other pottery, indeterminate ceramics and production debris). Each of these is subdivided into find classes, wares or fabrics, often with chronological value. For example, “other pottery” contains classes such as black glazed, *terra sigillata* and *impasto chiaro sabbioso*. Finds were counted and weighed per class. Finally, diagnostic fragments (*i.e.* rims, handles, bases, decorated fragments) were numbered, described and in most cases drawn; a description of all sites and related artefacts is presented in appendix 3.

#### 4.3. Site-loss

As we have already seen in section 2, modern land use has had an enormous impact on the archaeological record of the lower Astura valley. This was also clear during our block surveys and the site revisits: in many fields “soil cleaning” has severely reduced the amount of pottery visible on the surface and leveling and building has destroyed a large number of archaeological sites; moreover, many sites were not accessible because of intensive land use. To show the large impact of modern land use on the results of our investigations, we will here discuss the circumstances of the site revisits in more detail.

In total, we tried to revisit 132 sites from Piccarreta’s inventory (fig. 10). Almost 30% (38 sites) has now disappeared due to building activities, leveling or soil cleaning for intensive agriculture. Limited visibility conditions prevented us from locating sites in 25 cases (19%), but off-site material indicates that at least part of these sites has not been destroyed; future revisits under better circumstances may confirm this. In 25 cases (19%) land owners did not grant us permission to enter; it is unclear whether these sites still exist today.

Thus we have been able to collect new data on 44 out of 132 sites, but the quality of these data varies greatly; not all sites yielded usable samples, and where we do have samples the number of diagnostic sherds is in general very low: we have samples with more than five diagnostic sherds from only six

revisited sites. This is mainly due to the fact that we carried out our fieldwork in summer; revisits in, for example, October or February would greatly improve our chances of finding more material because it is in these months that most ploughing takes place.

Although the number of sites sampled is limited and the samples themselves are very small, the revisits significantly improved our understanding of the Piccarreta dataset. This is especially true for the protohistoric period, for which we now have non-diagnostic material from many sites, although diagnostic material is still lacking. Many Roman sites could be dated with more precision and we are convinced that new revisits will enhance our datings further.

#### 4.4. Evaluation of the results from the Bronze Age to the Roman period

In this section the results of the Astura 2003 survey are discussed for the various periods for which we have data. The discussion follows a crude chronology that is partly based on a recent revision of the proto-historical chronology (table 5):

The results of the survey will be discussed for the Bronze and Early Iron Age, the Late Iron Age, the

Table 5. Chronology used in this article.

Middle Bronze Age	1700-1350 BC
Late Bronze Age (Recent and Final)	1350-1020 BC
Early Iron Age	1020-780 BC
Late Iron Age (includes Orientalising)	780-580 BC
Archaic	580-480 BC
Post-Archaic	480-350 BC
Republican	350-30 BC
Early Imperial	30 BC- AD 100
Mid Imperial	AD 100 - 300

Archaic period, the post-Archaic and Republican period, and the Imperial period. At five sites dating to these various periods physical geographical observations were made (see also fig. 9a); the setting in the landscape and subsistence potential of these sites are described in more detail; these descriptions may serve as representative examples for the given period.

##### 4.4.1. Bronze and Early Iron Age

During the Astura block survey no data were recorded that could be attributed with certainty to the Bronze or Early Iron Age. A few of the sites listed by Alessandri (2007: 98–123) that at the time of survey still lacked

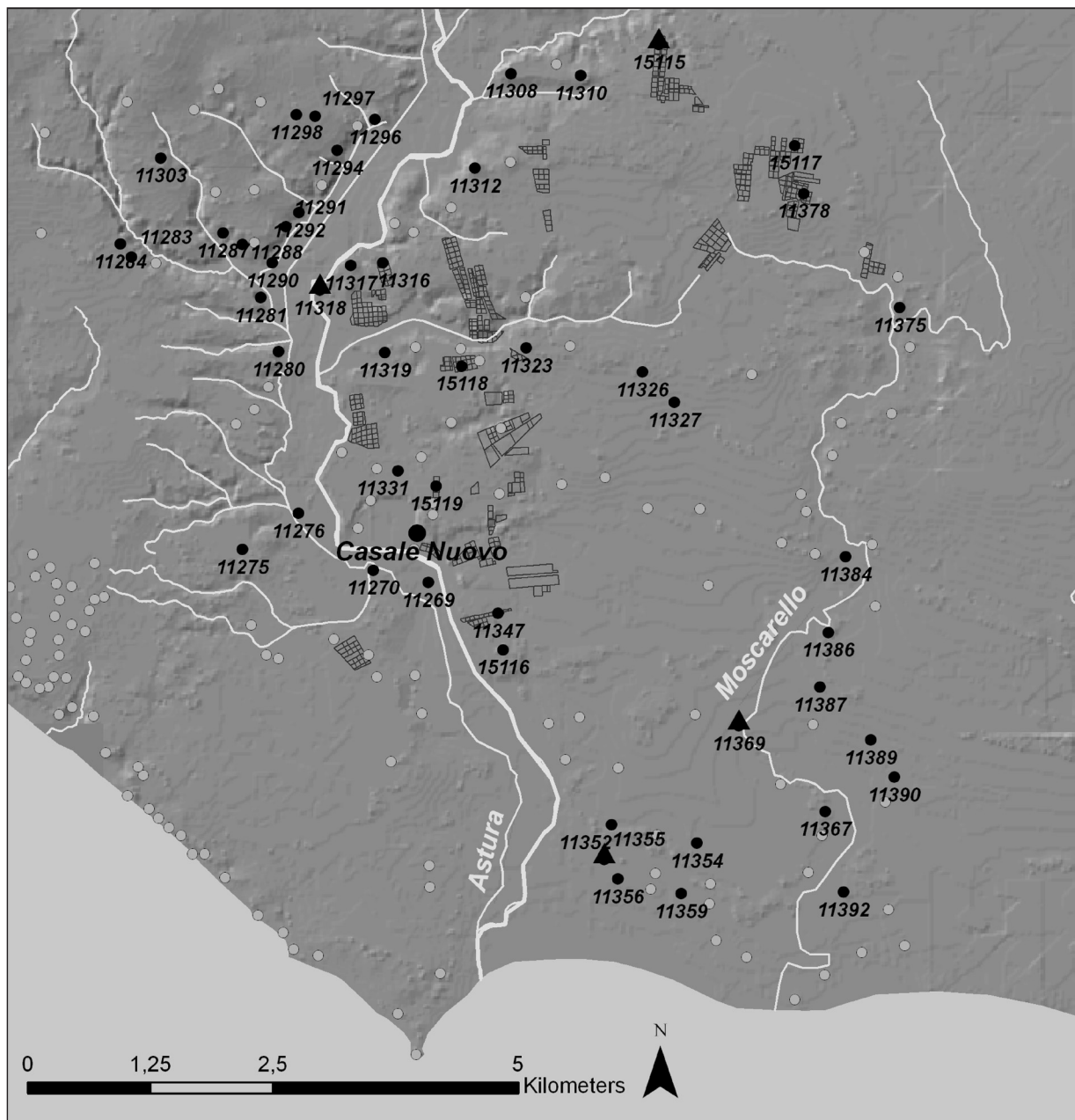


Fig. 9a. Survey area and sites of the Astura 2003 survey. Black dots: new sites and revisited Piccarreta sites; small grey dots: Piccarreta sites that have not been revisited; black triangles: sites where coring took place (GIA).

diagnostic materials or had an insufficient number of diagnostics, were revisited, but without result. The archaeological record therefore remains restricted to the sites recently listed and discussed in Alessandri (2007). The fact that no new data for the Bronze and Early Iron Age were obtained, may be largely due to the poor preservation of sites in the Astura valley (see section 2), especially early protohistoric ones. We observe that permanent settlement in the lower Astura

valley commenced in the Recent Bronze Age and intensified during the Final Bronze Age.

The lack of data pertaining to the Early Iron Age may be largely due to a problem of pottery dating; a number of Final Bronze Age sites dated by Alessandri may have continued in use in the Iron Age, while among the protohistoric sites that Piccarreta mapped, some Early Iron Age sites may also have been included. Some of the sites along the coast specialized



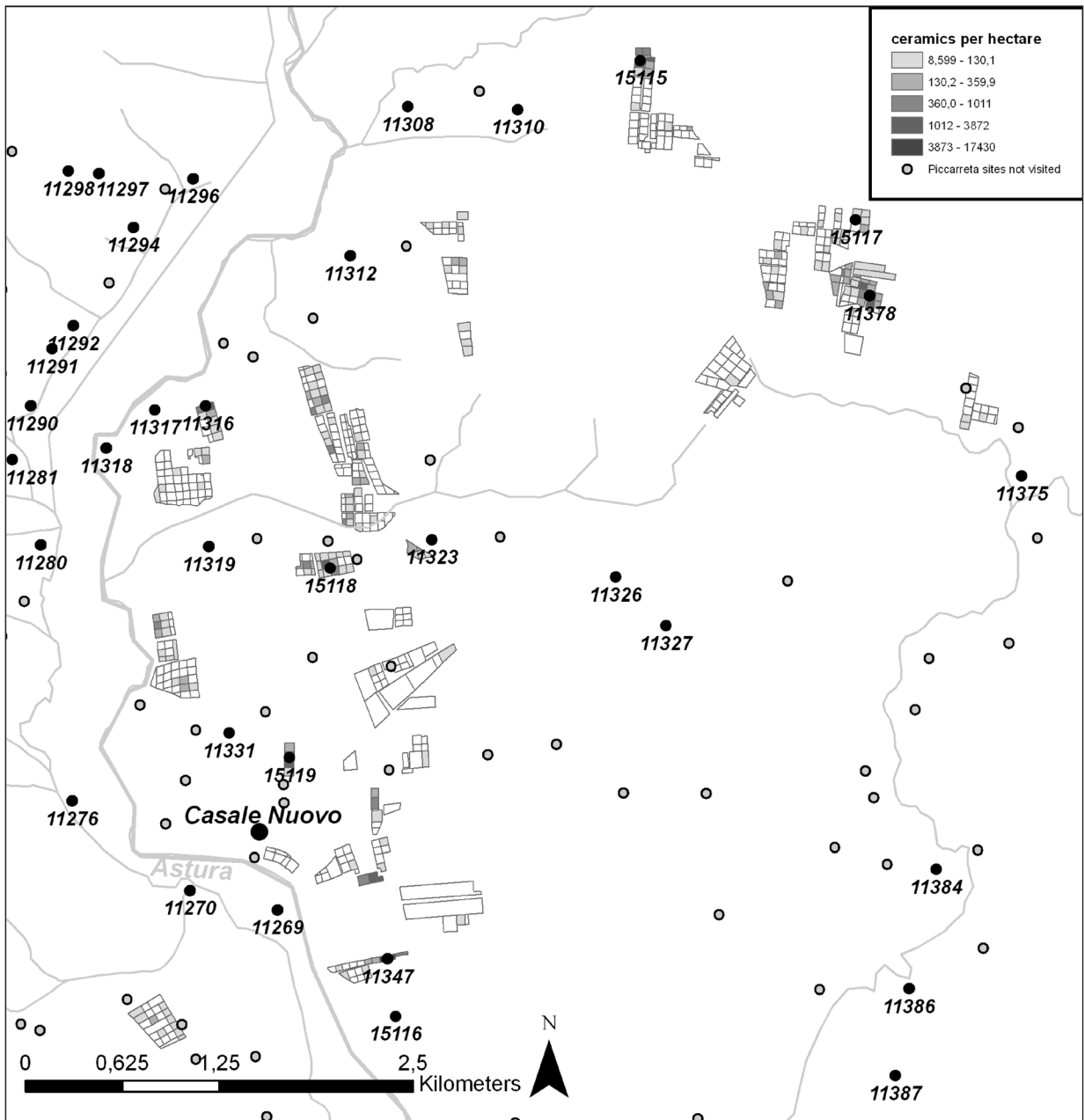


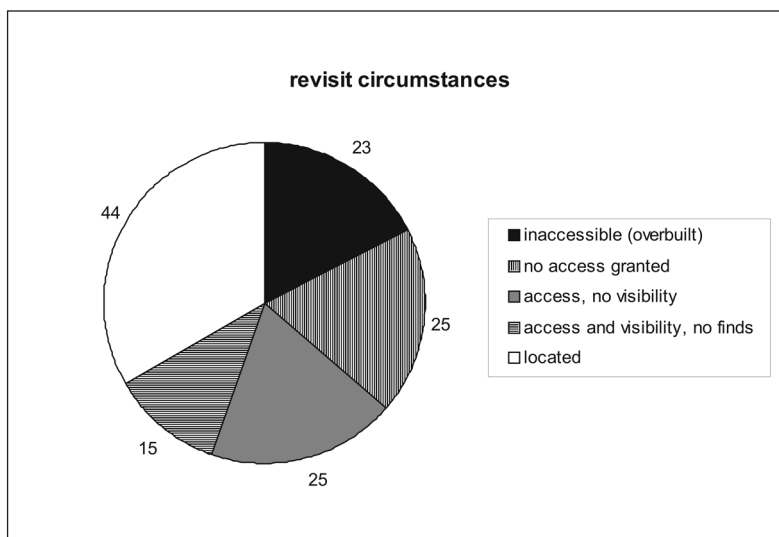
Fig. 9b. Block survey area of the Astura 2003 survey with densities of ceramics. Black dots: new sites and revisited Piccarreta sites; small grey dots: Piccarreta sites that have not been revisited (GIA).

in salt and pottery production, while others may have been regular habitation sites. Inland sites were located along the river Astura or, as landscape reconstructions show, near marshy areas (Alessandri, 2007).

At the site of Casale Nuovo, evidence was found for pottery production, metallurgy and contacts with the Aegean world, but only for the Recent Bronze Age was secure evidence for actual habitation found (Angle & Zarattini, 1987; Angle *et al.*, 1992; Giardino,

2006). To what extent the area immediately surrounding Casale Nuovo was inhabited during protohistory will probably remain unknown because the area has been severely affected by leveling. Comparison of the present environmental situation, such as it appears on the current *Carta Tecnica Regionale* with the situation on the map of the *Opera Nazionale Combattenti* of the 1930s, shows the profound changes in relief the landscape has undergone since that time (fig. 11).

Fig. 10. Revisit circumstances in the lower Astura valley (GIA).



From the comparison it appears that there used to be a marshy area to the southeast of the site, while the relief towards the valley was much more pronounced. In a trial survey in 2002, impasto sherds were reported from the area west of the excavation, but none of these were diagnostic and the material occurred over the surface without any clear patterning.

#### 4.4.2. Late Iron Age

The surveys brought to light twelve sites with protohistoric impasto; most of the impasto sherds were found during revisits to Piccarreta sites, but site 15118 also yielded some impasto. Three of these sites could, on account of the occurrence of *impasto rosso* (sites 11294 and 11355) or *bucchero* (site 11369), be dated with certainty to the Late Iron Age (Orientalising period) or Early Archaic period. The impasto from other sites was dated on basis of its fabric more generically to the Late Iron Age.

The location of two representative sites was described in more detail. Site 11355 is located on the transition of a level fluvial unit with clayey soils and the elevated sandy beach ridge of Borgo Ermada (fig. 12). The fluvial unit is poorly drained and its soils are loamy with sandy layers. The beach ridge itself with its aeolian cover has sandy soils and is well-drained. According to a land evaluation that was carried out as part of the Fogliano survey, only aeolian units would, in antiquity, have been suitable for cultivation (Attema *et al.*, 1999/00: 151–153; Van Joolen, 2003: 129–152). Other units, such as those of fluvial origin and the lagoonal units between beach ridges and the level lagoonal units, would have had severe limitati-

ons due to excessive drainage, adverse workability of the soil, or low fertility of the soil. These parts may have been put to other uses, for instance as pastures. That many sites on Piccarreta's map appear on the transition of the fluvial unit to the beach ridge with aeolian cover would seem to indicate that these locations were especially chosen so as to be able to combine animal husbandry with the cultivation of crops.

Sites from this period are, however, not restricted to this specific environment. Site 11369, for example, is located on level terrain west of the Moscarello river valley with to the north of the site a small valley, in which nowadays runs a small water course (fig. 13). South of the site the soils are well drained aeolic sands. The latter soils would, according to the land evaluation, have been suitable for arable farming. Here too the inhabitants selected a location with access to various types of land and water. To the north of the site the sandy layer is covered with a loamy layer which contains coarse pieces of limestone. This layer has most probably been added recently.

#### 4.4.3. Archaic period

On 29 Piccarreta sites and on one newly discovered site an Archaic component was identified amidst later periods, while on two sites occupation is limited to the Archaic period (site 11356 and the newly discovered site 15115 west of Castelverde). We must note here that there are hardly any catalogued Archaic fragments and in all cases the identification of Archaic sites was based on the presence of certain typical fabrics (for a description of these fabrics, see Attema *et al.*, 2001/02). Whilst we do not know the extent and den-

sity of Archaic materials at the 27 multi-period sites, as these were only sampled for diagnostic materials, site 15115 was surveyed using the block system.

The site is located on a plateau between two valleys that nowadays have small water courses dominating a valley to the north (fig. 14). The area where the Archaic ceramics were found measured 1.5 ha and this is thought to be indicative of the existence of more than one farmstead: the site is therefore interpreted as a hamlet. The site is badly preserved; in augerings no archaeological materials were found and the site appears to have been ploughed out entirely. The texture of the soil on the site itself is sandy to moderately loamy while in the area around the site loamy and sandy soils are also found. These are predominantly found north and northwest of the site in the form of dunes of aeolian origin, soils that would have been suitable for cultivation.

#### 4.4.4. *Post-Archaic and Republican periods*

As we have seen above, a rather large part of all sites (30) has an Archaic phase. The same goes for the Republican period: we certainly have Republican occupation at 17 sites (indicated by black glazed fragments). If we also take the presence of tiles and pottery with volcanic inclusions (described by Piccarreta as “tegole sabbiate”) as an indicator of Republican occupation, virtually all surveyed sites (44) would have had a Republican phase.

The evidence for occupation in the intermediate post-Archaic period is much less clear: there are hard-

ly any catalogued fragments that date to this period (except a few possibly 4<sup>th</sup> century jars at sites 11319 and 11323), and no fabrics were recognized during the surveys, can with certainty can be attributed to the post-Archaic period.

This seems to imply a high degree of discontinuity from the Archaic into the post-Archaic period and a phase of resettlement during the Republican period. However, we do not think that this reflects the actual settlement dynamics between the Archaic and Republican period; the discontinuity noted must be largely due to the low diagnostic value of post-Archaic pottery. Sherds from this period are still hard to recognize in the surface record and will, as a result, in many cases either be classified as Archaic or as Republican. This is most probably true for the tiles with volcanic inclusions (“sabbiate”), because such tiles (which have a white to pale colour) occur in 5<sup>th</sup> and 4<sup>th</sup> century contexts at nearby *Satricum*. A re-examination of the fabric characteristics of all tiles from the survey points to the presence of more sites with a post-Archaic component (Attema *et al.*, forthcoming; we will elaborate on this in the second report).

#### 4.4.5. *The Imperial period*

Whereas, almost all sites may have been occupied in the Republican period, the ceramic evidence indicates that occupation declined in the Imperial period. We have evidence for occupation in the Early Imperial period (*terra sigillata* and other dated fragments) from eleven sites, while twelve sites have yielded fragments

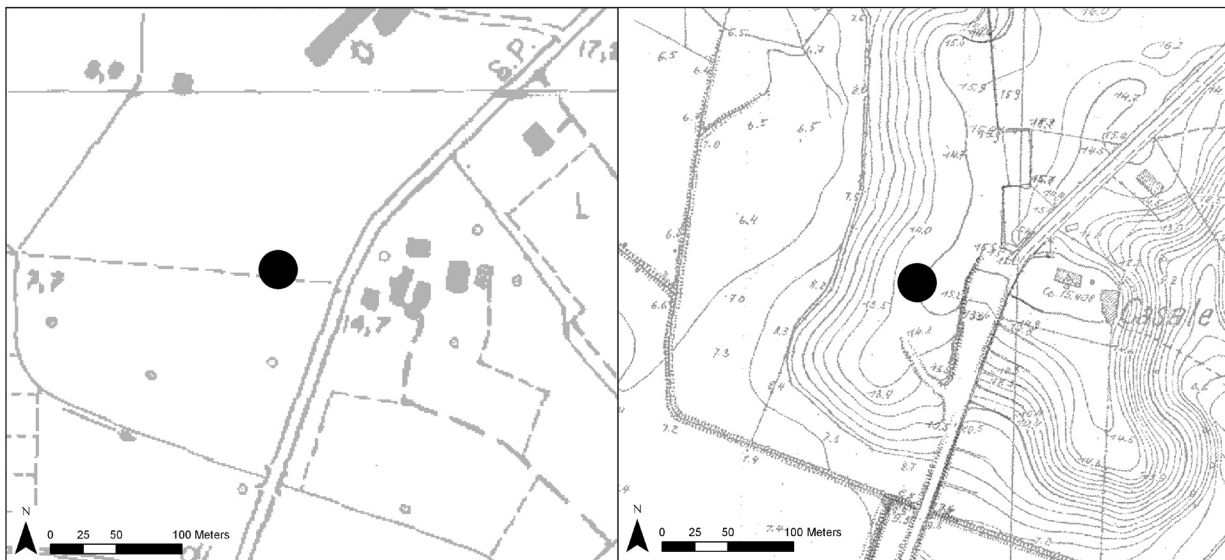
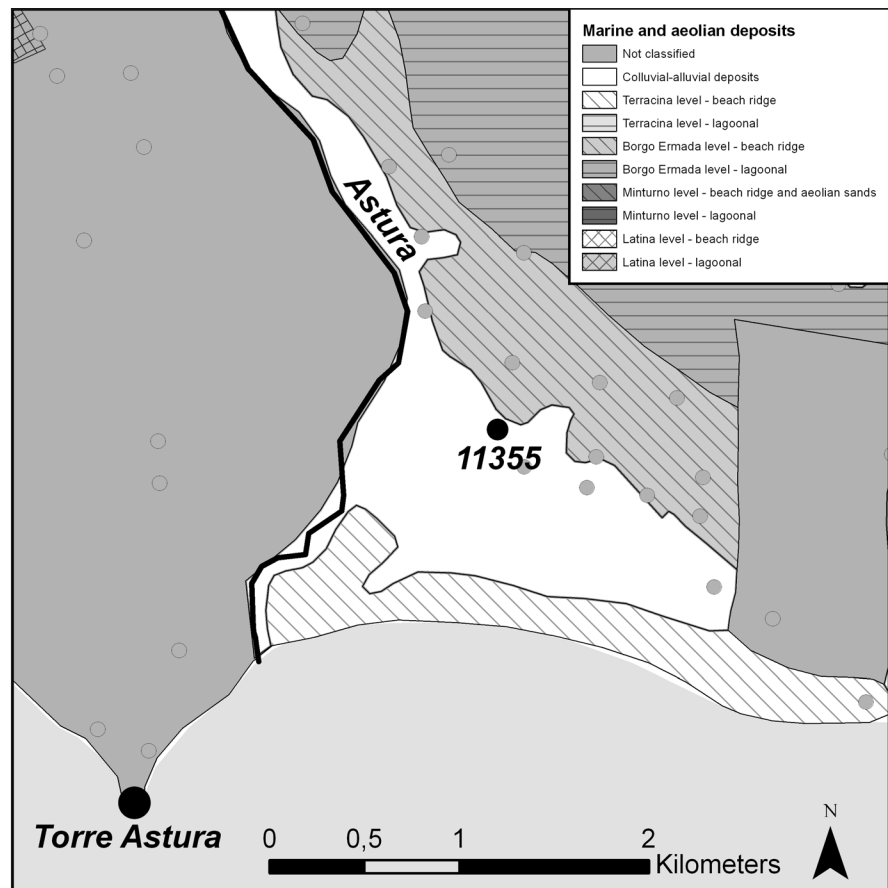


Fig. 11. Location of Casale Nuovo on the recent CTR and on the map of the 1930s (After: Alessandri, 2007: figs 3.73 and 3.76).

Fig. 12. Location of site 11355 and soils in its surroundings (GIA).



of African red slip wares and amphorae dating from the later 1<sup>st</sup> century onwards. Most fragments have a final date in the mid 3<sup>rd</sup> century at latest; at a few sites occupation continued into the 4<sup>th</sup> century (sites 11318, 11331 and 15116).

Again for the Imperial period we have to be cautious with interpretations about continuity or discontinuity, as the ceramic record may not be representative of all phases. Sites with larger samples give evidence that they were occupied for a very long period. At site 11318, for instance, the large ceramic sample is indicative for continuity from the Archaic into the Imperial period (perhaps the 4<sup>th</sup> century AD). This site was located on an elevated part in the landscape running east-west, and overlooking the valley of the Astura (fig. 15). The site itself lies on the transition between the valley, filled with Holocene fluvial-colluvial deposits and peat, and the beach ridge system of the Latina level, covered with aeolian sands. This location on the plateau gave a good view over the Astura and the surrounding area. The site had fertile, well-drained soils in its immediate neighbourhood.

The archaeological record as presented here does not offer many possibilities for a detailed classification of rural sites: in general, both Republican and Imperial sites consist of simple scatters of tiles and pottery and sometimes stone blocks or debris. These sites most probably represent farmsteads. From Piccarreta's observations we know of only two sites that in the Imperial period may have been larger estates: at sites 11294 and 11312, Piccarreta observed both extensive architectural remains and status indicators such as remains of mosaic floors and column drums.

## 5. CONCLUSIONS

The Astura and Nettuno surveys show a continuous distribution over the beach ridge landscape of Middle (Pontinian Mousterian) and Upper Paleolithic artefacts (Aurignacian and Epigravettian) and only a few artefacts from the Neo/Eneolithic. This observation is in line with the results from the Fogliano survey in the lagoonal milieu to the southwest of the Astura

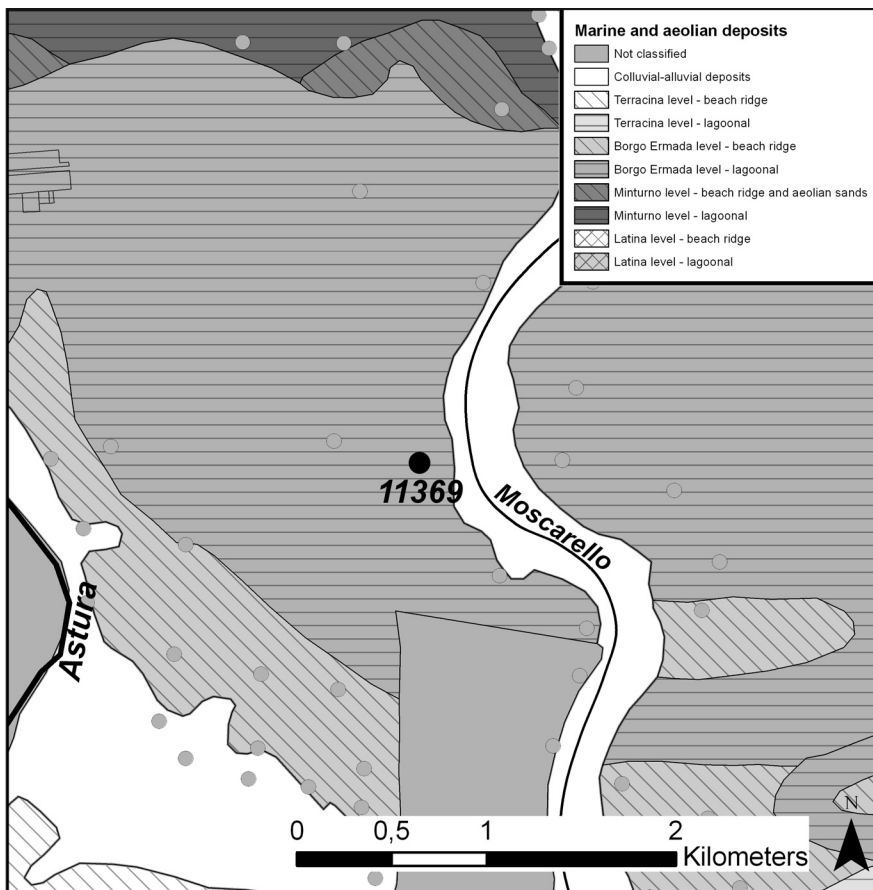


Fig. 13. Location of site 11369 and soils in its surroundings (GIA).

and Nettuno area (fig. 1). In that survey lithics of the Middle and Upper Paleolithic periods were also found all over the landscape (Attema *et al.*, 2003/04: 123–127). To the already known lithic sites in the Astura and Nettuno area, the survey added two sites in the area of Piano Rosso, one with Middle and Upper Paleolithic artefacts and one with Upper Palaeolithic artefacts. From the consistently dense distribution of Middle and Upper Paleolithic lithics on the beach ridges we deduced that this landscape unit was regularly frequented by hunter-gatherer groups who also set up occasional camps here. Unlike in the Fogliano survey, no Mesolithic finds were made, while the amount of Neo-Eneolithic finds was smaller.

Although we know from the available archaeological record that permanent settlement in the region had started at least by the Recent Bronze Age, the survey did not find evidence of permanent settlement of the Bronze and Early Iron Ages. The absence of sites from this period in the Astura survey record is most likely due to land improvement schemes that have

obliterated the extremely fragile early protohistoric settlement record. The low recovery of archaeological sites of the later Iron Age and Archaic periods in the Astura survey also seems a direct consequence of modern land use. If sites were found, they mostly yielded worn and hardly diagnostic pottery, and augerings at such sites proved that these had been ploughed out entirely. The program of relocating sites recorded by Piccarreta was rendered difficult, because of a variety of factors including land improvements, recent building, inaccessibility and low visibility circumstances. On the basis of the results of the site revisits so far we estimate a site loss between 30% and 68% since Piccarreta's inventory of the 1970s.

Sites found in the Astura survey in general proved to be multi-period sites. However, the pottery record was in most cases so patchy that an assessment whether sites were continuously or discontinuously inhabited was not possible. For example, sites would have clear evidence for an Archaic and a Republican phase, but not for a post-Archaic phase. In such cases it is unclear

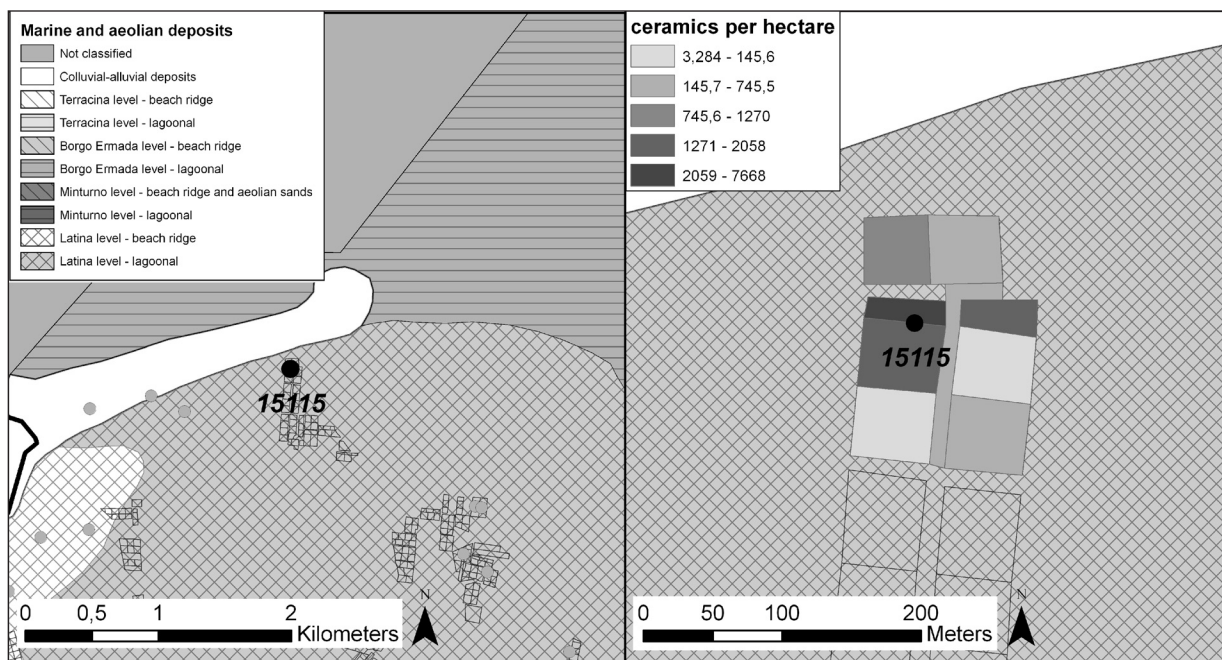


Fig. 14. Density of ceramics at site 15115 and soils in its surroundings (GIA).

whether this is due to an incomplete pottery record or reflects a period of abandonment. In addition, the low quantities of sherds found at sites made it difficult to assess their original extent, impeding a site classification such as was made for sites in the Fogliano survey. In spite of these drawbacks, the Astura survey has been valuable because it has increased precision in the dating of the sites mapped by Piccarreta and it has given evidence of new sites, among which an Archaic hamlet near Castelverde. For a number of protohistorical and Roman sites, their natural setting and potential for agriculture could be evaluated.

## 6. FURTHER WORK

As we have shown in this article, a more detailed interpretation of the archaeological evidence from the Astura 2003 survey must await further work. We here comment on some of the additional work that has been done since 2003 and the work we are currently planning. As section 3 shows, a lot of ground was covered during the block surveys of 2004 and 2005; the information from these surveys is obviously of prime importance for an interpretation of the Astura 2003 survey. The surveys of 2004 and 2005 were part of the *Carta Archeologica* project and did not only entail block surveys, but also various other additional studies. First of all, the fabrics of all tile- and amphora

fragments from the Astura survey have been described; these data are currently being used to complement our site datings. A second element of the *Carta Archeologica* was the continuation of the site revisit program; a number of sites in the Astura valley have been included in this program.

Another important aspect of the *Carta Archeologica* is the integration of our survey data with data from other sources, including the local museum collection, topographic research and excavations. The available data on other rural sites (for example the not-revisited sites mapped by Piccarreta) are obviously of great importance here, but we must also look at the evidence from central settlements, most importantly *Satricum* and *Antium*.

A preliminary assessment of the Astura survey data in the light of trends in site numbers observed in the *Carta Archeologica* suggests that the Late Iron Age and Archaic sites of the Astura survey should be related to a general trend of rural infill related to the flourishing of *Satricum* in this period (Attema *et al.*, forthcoming). What exactly happened in the post-Archaic period is difficult to say at this stage in the research due to dating problems that have yet to be resolved. In the Late Roman Republican and Early Imperial period it seems that in the lower Astura valley we are still dealing with farmsteads of a modest size. These may have had socio-economic bonds with the *villae maritimae* that lined the coast in this period.

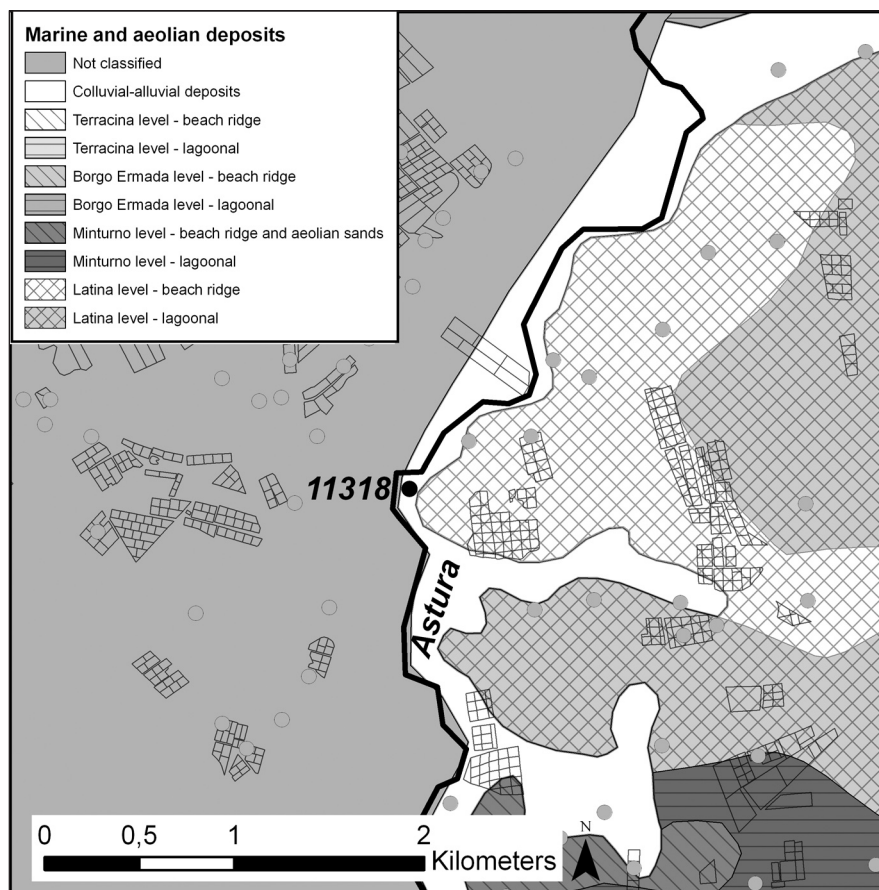


Fig. 15. Location of site 11318 and soils in its surroundings (GIA).

This is in contrast with the situation near *Antium* where we do find large villae developing in the rural territory of the Roman colony of *Antium*. These observations on the settlement dynamics point to different patterns of rural development in the Astura and Nettuno areas.

We stress that these observations are preliminary, and a final analysis is awaited. At the moment we are preparing the data for a 2<sup>nd</sup> report on the ceramic record of the 2004 and 2005 surveys (to be published in *Palaeohistoria* 51/52); publication of the *Carta Archeologica* is also in preparation. In the meanwhile, revisits are continuing and new fieldwork is taking place at the Roman site of *Astura*, which may also have been of great importance as a central place for the rural sites in the Astura valley. The combined results of these various projects will be analyzed in more detail within the framework of PhD theses by the third and the fourth author.

## 7. NOTES

1. Publication is foreseen in the Supplement Series of the Bulletin Antieke Beschaving (BABesch).

## 8. REFERENCES

- ALESSANDRI, L., 2007. *L'occupazione costiera protostorica del Lazio centro-meridionale* (BAR International Series 1592). Oxford, Archaeopress.
- ANGLE, M. & A. ZARATTINI, 1987. L'insediamento protostorico di Casale Nuovo. *Archaeologia Laziale* VIII, 250–252.
- ANGLE, M., C. CANEVA, A. CONTI, R. DOTTARELLI, A. GIANNI, C. GIARDINO & C. PERSIANI, 1992. Casale Nuovo (LT) e la tarda età del Bronzo nel Lazio meridionale, in *Atti del III convegno di studi, Un millennio di relazioni fra la Sardegna e i paesi del Mediterraneo*, Selargius-Cagliari, 11.1987, 265–303.
- ANSUINI, P. & M. LA ROSA, 1989. Industria del Paleolitico superiore in località Le Grottaacce (Nettuno – Roma). *Studi per l'Ecologia del Quaternario* 11, 95–105.
- ATTEMA, P.A.J., E. VAN JOOLEN & P.M. VAN LEUSEN, 1999/00. A marginal landscape: field work on the beach ridge complex near Fogliano (South Lazio). *Palaeohistoria* 41/42, 149–162.
- ATTEMA, P.A.J., A. BEIJER, M. KLEIBRINK, A.J. NIJBOER & G.J.M. VAN OORTMERSEN, 2001/02. Pottery classifications: ceramics from Satricum and Lazio, Italy, 900–300 BC. *Palaeohistoria* 43/44, 321–396.

- ATTEMA, P.A.J., T.C.A. DE HAAS & A.J. NIJBOER, 2003. The Astura project, interim report of the 2001 and 2002 campaigns of the Groningen Institute of Archaeology along the coast between Nettuno and Torre Astura (Lazio, Italy). *BABesch* 78, 107–140.
- ATTEMA, P.A.J., T.C.A. DE HAAS & M. LAROSA, 2003/04. Sites of the Fogliano survey (Pontine Region, central Italy), site classification and a comment on the diagnostic artefacts from Prehistory to the Roman period. *Palaeohistoria* 45/46, 121–196.
- ATTEMA, P.A.J., T.C.A. DE HAAS & G.W. TOL, forthcoming. *Carta archeologica del Comune di Nettuno*. *BABesch* supplement series.
- BENEO, E., 1963. Carta Geologica d'Italia Foglio 158 Latina, II Ediz. Servizio Geologico Italia.
- BIETTI, A., 1976/77. Analysis and illustration of the Epigravettian industry collected during the 1955 excavations at Palidoro (Rome, Italy). *Quaternaria* 19, 197–387.
- BLANC, A.C., 1937. Nuovi giacimenti paleolitici del Lazio e della Toscana. *Studi Etruschi* 11, 273–304.
- BLANC, A.C., 1939. Un giacimento aurignaziano medio nella Grotta del Fossellone al Monte Circeo. In: *Atti XXVII Riunione della Società Italiana per il Progresso delle Scienze*, Bologna, 4–11 settembre 1938. Roma, 215–221.
- BLANC, A.C. & A.G. SEGRE, 1953. *Excursion au Mont Circé*. Livret-Guide au IV Congr. Int. INQUA, Roma-Pisa.
- BORDES, F., 1961. *Typologie du Paléolithique ancien et moyen* (Publications de l'Institut de Préhistoire de l'Université de Bordeaux, Mémoire 1). Bordeaux.
- BORZATTI VON LOWENSTERN, E. & P. BARSOTTINI, 1983. L'industria litica di Vallone Carnevale. Contributo alla conoscenza del Pontiniano. *Studi per l'Ecologia del Quaternario* 5, 25–41.
- ETTLINGER, E., 1990. *Conspectus Formarum terrae sigillatae Italico modo confectae*. Bonn, Habelt.
- GIARDINO, C., 2006. Il villaggio dell'età del bronzo di Casale Nuovo: lavorazione di rame e piombo in un sito con ceramica di tipo egeo. In: *Astura, Satricum, Pomestia, un itinerario alle origini di Latina*. Latina, Associazione Socio-Culturale "Mater Matuta", 26–49.
- GNADE, M., 2002. *Satricum in the Post-Archaic period. A case study of the interpretation of archaeological remains as indicators of ethno-cultural identity*. Leuven.
- GNADE, M., 2007. *Sarticum trenta anni di scavi Olandesi*. Amsterdam, UvA/Amsterdams Archeologisch Centrum.
- HAYES, J., 1972. *Late Roman Pottery*. Rome, British School at Rome.
- HOLSTROM, S., A. VOORRIPS & H. KAMERMANS, 2004. *The Agro Pontino Archaeological Survey [cdRom]* (Archaeological Studies Leiden University 11). Leiden, Faculty of Archaeology.
- JOOLEN, E. VAN, 2003. Archaeological land evaluation. A reconstruction of the suitability of ancient landscapes for various land uses in Italy focused on the first millennium BC. PhD thesis, Universiteit Groningen.
- KAMERMANS, H., A. STIERMAN, P. VOS & E. WESTERHOFF, 1979. *Bodemgesteldheid in de Agro Pontino ten Z.W. van Latina, Midden Italië* (unpublished report). Amsterdam, UvA/Fysisch Geografisch en Bodemkundig Laboratorium.
- LA ROSA, M., P. MAZZA, M. RUSTIONI & F. VIANELLO, 1989/90. Agro Pontino (prov. di Latina e Roma). *Notiziario della Rivista di Scienze Preistoriche* 42, 356–359.
- LA ROSA, M., 2002. La Preistoria. In: F. Tetro (ed.), *Il territorio pontino dalla Preistoria alle Bonifiche. Materiali per il Catalogo*. Latina, comune di Latina, 37–48.
- LA ROSA, M., 2004. Osservazioni preliminari sulla distribuzione dei siti all'aperto musteriani nel territorio del Lazio costiero centro-meridionale e indagini sull'ubicazione della materia prima. In: S. Bove (ed.), *I Quaderno. Studi e Ricerche*. Sabaudia, Museo Civico del Mare e della Costa "M. Zei", 91–104.
- MAASKANT-KLEIBRINK, M., 1987. *Settlement excavations at Borgo le Ferriere (Satricum) I, the campaigns 1979, 1980, 1981*. Groningen, Egbert Forsten.
- MAASKANT-KLEIBRINK, M., 1992. *Settlement excavations at Borgo le Ferriere (Satricum) II, the campaigns 1983, 1985 and 1987*. Groningen, Egbert Forsten.
- MANTERO, D., 2003. Per un quadro del più antico popolamento umano del territorio di Anzio e Nettuno. In: G. Caneva & C. M. Travaglini (eds), *Atlante Storico-Ambientale, Anzio e Nettuno*. Roma, De Luca Editori d'Arte, 86–93.
- NIJBOER, A.J., P.A.J. ATTEMA, & G.J.M. VAN OORTMERSSEN, 2005/06. Ceramics from a late Bronze Age saltern on the coast near Nettuno (Rome, Italy). *Palaeohistoria* 47/48, 141–205.
- OLCESE, G., 2003. *Ceramiche comuni a Roma e in area romana: produzione, circolazione e tecnologia (tarda eta repubblicana – prima eta imperiale)*. Mantova, SAP.
- PERETTO, C., M. LA ROSA, A. LIBONI, S. MILLIKEN, M. SOZZI & A. ZARATTINI, 1997. Le gisement de Quarto delle Cinfonare dans le cadre du Paléolithique inférieur de l'Italie ouest-centrale. *L'Anthropologie* 101, no.4, 597–615.
- PICCARRETA, F., 1977. *Astura*. Forma Italiae reg I, Vol. 13. Firenze, Olschki.
- SEVINK, J., P. VOS, W. WESTERHOFF, A. STIERMAN & H. KAMERMANS, 1982. **A sequence of marine terraces near Latina (Agro Pontino, Central Italy)**. *Catena* 9, 361–378.
- SEVINK, J., A. REMMELZWAAL & O. SPAARGAREN, 1984. *The soils of southern Lazio and adjacent Campania*. Amsterdam, UvA/Fysisch Geografisch en Bodemkundig Laboratorium.
- SEVINK, J., J. DUIVENVOORDEN & H. KAMERMANS, 1991. The soils of the Agro Pontino. In: A. Voorrips, S.H. Loving & H. Kamermans (eds), *The Agro Pontino Survey Project* (Studies in Prae- en Protohistorie 6). Amsterdam, Instituut voor Pre- en Protohistorie, 31–48.
- SNOEK, G. & A. VAN DE GIESSEN, 1985. *Genese, Bodems en Bodemgebruik van een Strandwallensysteem in Latium, Italië* (unpublished report). Amsterdam, UvA/Fysisch Geografisch en Bodemkundig Laboratorium.



- TASCHINI M., 1979. L'industrie lithique de Grotta Guattari au Mont Circé (Latium): définition culturelle, typologique et chronologique du Pontinien. *Quaternaria* 21, 179–247.
- TIXIER, J., M.L. INIZAN & H. ROCHE, 1980. *Préhistoire de la pierre taillée. 1: terminologie et technologie*. Antibes, CREP.
- VIANELLO, F., M. LA ROSA, P. MAZZA, J. MOGGI-CECCHI & M. RUSTIONI, 1995. Palaeolithic from the volcanoclastic deposits of the Agro Pontino, Latium, Central Italy. *Quaternaria Nova* 5, 7–22.
- VOORRIPS, A., S. LOVING & H. KAMERMANS, 1991. *The Agro Pontino Survey Project: methods and preliminary results* (Studies in Prae- en Protohistorie 6). Amsterdam, Universiteit van Amsterdam.

## APPENDIX 1. DESCRIPTION OF LITHIC INDUSTRY FROM THE ASTURA 2003 SURVEY

Appendix 1 presents a description of the lithic industry found during the block surveys of 2003 in the Astura valley. Finds have been ordered by location (toponym); for each location, all lithic artefacts are described by unit and, where possible, dated. The formal tools are described according to the standard Bordeaux taxonomy (Bordes, 1961; Bietti, 1976/77), while the débitage is classified according to the definitions introduced by J. Tixier (Tixier *et al.*, 1980; see also Bietti, 1976/77).

## I NORCINI

**Unit 6001 Middle Palaeolithic, Upper Palaeolithic**

1 angle dihedral burin on flake  
1 carinated nose-ended endscraper  
1 bladelet core  
1 discoidal core  
3 flakes

**Unit 6002 Neo-Eneolithic**

1 small carinated endscraper of obsidian  
1 notched tool on flake  
1 flake

**Unit 6003 Upper Palaeolithic**

1 angle burin on truncation  
2 flakes

**Unit 6004 Upper Palaeolithic**

1 bladelet core  
2 cores  
2 flakes

**Unit 6005 Neo-Eneolithic**

1 partially truncated tool made on bladelet of obsidian  
1 flaked pebble

**Unit 6006 Neo-Eneolithic**

1 debris of obsidian

**Unit 6008**

2 debris

**Unit 6009 Upper Palaeolithic**

1 unretouched blade  
1 flake  
2 flaked pebbles

**Unit 6012**

1 flake

**Unit 6014**

1 flake

**Unit 6058 Upper Palaeolithic**

1 fragment of unretouched blade

**Unit 6060 Middle Palaeolithic**

1 Levallois flake  
2 flakes

**Unit 6061**

1 borer on flake

**Unit 6065 Upper Palaeolithic**

1 bladelet core

## COLLE FIENILE

**Unit 6019 Upper Palaeolithic**

1 bladelet core;  
1 core of chopping-tool type

**Unit 6030 Middle Palaeolithic**

1 atypical Levallois flake

**Unit 6056**

1 core

## CANNETO DI RODI

**Unit 6036**

1 retouched flake

## COLLE DEL PERO OVEST

**Unit 6068 Upper Palaeolithic**

1 bladelet core  
1 core of chopping-tool type

**Unit 6069 Upper Palaeolithic**

1 fragment of small backed tool  
1 bladelet core

**Unit 6071**

1 core of chopping-tool type  
1 debris

**Unit 6073**

1 flake

**Unit 6077**

1 flake

**Unit 7027 Upper Palaeolithic**

1 “à cran” piece on broken blade  
2 cores  
1 flake

**Unit 7029 Upper Palaeolithic**

1 backed bladelet with marginal partial retouch, broken  
1 flake

**Unit 703 Middle Palaeolithic**

1 discoidal core  
2 flakes  
1 flaked pebble  
1 core

**Unit 7032**

1 core

**Unit 7033**

1 retouched flake  
1 flake

**Unit 7034 Middle Palaeolithic**

1 transversal convex sidescraper  
1 fake  
1 core

**Unit 7036 Upper Palaeolithic**

1 bladelet core  
1 core

**Unit 7037**

1 debris

**Unit 7039**

1 borer on flake  
2 flakes

**Unit 7040 Middle Palaeolithic**

1 déjeté sidescraper  
1 flake

**Unit 7041**

1 core

**Unit 7048**

1 core

**Unit 7050**

1 core  
2 flakes

**Unit 7053**

1 flaked pebble

**Unit 7054**

1 core

**Unit 7055**

1 debris

**Unit 7056 Middle Palaeolithic**

1 sidescraper with bifacial retouch

**Unit 7057**

1 small core of chopping-tool type  
1 core

**Unit 7059**

1 flake

**Unit 7061**

1 flake

**Unit 7063**

1 core

CASALE S. ANTONIO

**Unit 6093 Middle Palaeolithic**

1 fragment of sidescraper

**Unit 6098**

1 flake

**Unit 6100**

1 microborer

**Unit 6103**

1 debris

**Unit 6104 Upper Palaeolithic**

1 fragment of unretouched bladelet  
1 flake

**Unit 6106**

1 flake  
1 debris

**Unit 6107 Middle Palaeolithic**

1 sidescraper with bifacial retouch  
1 borer on flake

**Unit 6109**

1 core

**Unit 6119 Upper Palaeolithic**

1 blade core  
1 core  
1 debris

**Unit 7001**

1 retouched flake

**Unit 7064**

1 core  
1 flake

**Unit 7066**

1 small retouched flake (L = 13 mm)  
2 cores  
1 debris

**Unit 7067**

2 cores

**Unit 7075 Middle Palaeolithic**

1 discoidal core

**Unit 7080**

1 flake

**Unit 7083 Upper Palaeolithic**

1 normally truncated tool with inverse retouch, on broken blade

**Unit 7084**

1 core  
1 flake

**Unit 7087**

1 debris

**Unit 7096**

1 flake

**Unit 7100**

1 flake

**Unit 7101 Middle Palaeolithic**

2 denticulated tool on flakes of mousterian type  
1 core of chopping-tool type

**Unit 7102**

2 flakes

**Unit 7104 Middle Palaeolithic**

1 déjeté sidescraper

**Unit 7105**

1 flake

## STRADA MOSCARELLO

**Unit 6126**

1 core

**Unit 6130**

1 retouched flake

**Unit 6131**

1 small retouched flake  
1 core  
1 debris

**Unit 6133 Upper Palaeolithic**

1 truncated tool on blade  
1 microborer  
1 retouched flake  
1 core  
2 flakes

**Unit 6134 Middle Palaeolithic**

1 double déjeté sidescraper

## PIANO ROSSO 1

**Unit 6145 Middle Palaeolithic, Upper Palaeolithic**

1 Mousterian point  
1 transversal straight sidescraper  
1 déjeté sidescraper  
1 retouched blade  
1 notched tool on blade  
1 core  
5 flakes  
1 debris

**Unit 6146 Upper Palaeolithic**

1 obliquely truncated tool on blade  
1 fragment of unretouched bladelet  
2 notched tools on flake  
1 cortical retouched flake  
11 flakes  
4 cores  
1 debris

**Unit 6147 Middle Palaeolithic, Upper Palaeolithic**

1 lateral simple convex sidescraper  
 1 unretouched blade  
 1 blade core  
 1 core  
 1 debris

**Unit 6149 Middle Palaeolithic, Upper Palaeolithic**

1 flat nose-ended endscraper  
 1 retouched flake  
 1 "protocentripetal" core  
 1 flake  
 1 core

**Unit 6150 Middle Palaeolithic, Upper Palaeolithic**

1 lateral simple convex sidescraper  
 1 notched blade  
 1 borer on flake  
 1 retouched flake  
 1 blade core  
 1 core  
 1 flank of blade core  
 3 flakes

**Unit 6151 Upper Palaeolithic**

1 truncation-endscraper  
 1 retouched blade  
 1 chopping-tool  
 1 flake

**Unit 6152 Middle Palaeolithic**

1 pseudo-Levallois point  
 1 "protocentripetal" core

**Unit 6154**

1 flake

**Unit 6155**

1 core

**Unit 6157**

1 core

**Unit 6162 Upper Palaeolithic**

1 blade core  
 1 obliquely truncated tool on flake

**Unit 6163 Middle Palaeolithic, Neo-Eneolithic**

1 flake of mousterian type  
 1 fragment of core of obsidian  
 1 small core

**Unit 6164**

1 flake

**Unit 6165 Middle Palaeolithic**

1 naturally backed knife  
 1 flake

**Unit 6179 Middle Palaeolithic**

1 retouched flake of mousterian type  
 1 fragment of Levallois core  
 1 core  
 1 flake

**Unit 6180 Middle Palaeolithic, Neo-Eneolithic**

1 leaf-shaped tool  
 1 fragment of discoidal core  
 1 flake of mousterian type  
 1 flake

**Unit 6181 Middle Palaeolithic**

1 discoidal core  
 1 flake

**Unit 6182**

1 retouched flake  
 1 core  
 2 flakes

**Unit 6184 Middle Palaeolithic**

1 Levallois flake  
 1 flake

**Unit 6186**

1 small flake

**Unit 6225**

1 retouched flake

## PIANO ROSSO 2

**Unit 6139**

2 flakes  
 1 debris

**Unit 6140 Upper Palaeolithic**

1 bladelet core

**Unit 6143 Upper Palaeolithic**

1 angle burin on fracture made on blade  
 1 burin-endscraper  
 1 borer on flake  
 1 flake

**Unit 6168 Upper Palaeolithic**

1 notched tool on crested blade  
 1 crested blade  
 1 blade core  
 1 small core  
 1 flake

**Unit 6170 Middle Palaeolithic**

1 fragment of discoidal core

**Unit 6171 Middle Palaeolithic, Upper Palaeolithic**

1 unretouched blade, broken  
 1 déjeté sidescraper  
 1 core  
 1 flake

**Unit 6172**

1 core

**Unit 6178 Middle Palaeolithic**

1 sidescraper with alternating retouch

**Unit 6183**

1 core

**Unit 6185 Upper Palaeolithic**

1 blade core of great size (L = 77 mm)

**Unit 6189**

1 core

**Unit 6194 Middle Palaeolithic, Upper Palaeolithic**

1 triangular endscraper  
 1 lateral simple straight sidescraper, obtained from a small pebble

**Unit 6222 Middle Palaeolithic**

1 straight transversal sidescraper  
 1 retouched flake

**Unit 6282**

1 flaked pebble

**Unit 6283 Upper Palaeolithic**

1 blade with inverse retouch, broken  
 1 notched tool on flake  
 1 unretouched blade, broken  
 1 fragment of unretouched blade  
 1 flake  
 1 core  
 1 debris

**Unit 6284 Upper Palaeolithic**

1 endscraper on flake  
 1 retouched flake  
 6 flakes  
 3 cores

**Unit 6285**

1 notched tool on flake  
 3 flakes

**Unit 6286 Upper Palaeolithic**

1 flat nose ended endscraper on cortical flake  
 2 retouched flakes  
 1 unretouched blade  
 3 flakes  
 1 flaked pebble of great size (L = 104 mm)  
 1 core  
 1 debris

**Unit 6287 Upper Palaeolithic**

1 normally truncated tool on blade  
 5 flakes  
 2 cores

**Unit 6288 Upper Palaeolithic**

1 obliquely truncated tool on retouched blade, broken  
 2 cores  
 5 flakes

**Unit 6289 Middle Palaeolithic, Upper Palaeolithic**

1 unretouched blade, broken  
 1 notched tool made on core  
 5 flakes, one of mousterian type  
 2 cores  
 1 debris

**Unit 6290 Middle Palaeolithic**

1 "protocentripetal" core  
 1 core

**Unit 6299 Middle Palaeolithic**

1 discoidal core  
 1 flake

**Unit 6300**

1 flake

PIANO ROSSO 3

**Unit 6195**

1 small flake  
 1 core

**Unit 6196**

1 flake

**Unit 6197**

1 debris

**Unit 6198**

1 flake

1 debris

**Unit 6199**

1 flake

**Unit 6200 Upper Palaeolithic**

3 flakes

1 part of blade core

**Unit 6202 Upper Palaeolithic**

1 endscraper on flake

**Unit 6203 Upper Palaeolithic**

1 angle burin on truncation made on flake

**Unit 6205**

1 core

**Unit 6210**

1 core

## VALLONCELLO

**Unit 6228 Middle Palaeolithic**

1 Levallois flake

1 flake

1 core

**Unit 6233**

1 retouched flake

**Unit 6234**

3 flakes

**Unit 6236 Middle Palaeolithic**

1 "protocentripetal" core

**Unit 6240 Middle Palaeolithic, Upper Palaeolithic**

1 fragment of sidescraper

1 retouched blade

2 flakes

1 debris

**Unit 6241 Middle Palaeolithic**

1 lateral simple convex sidescraper

3 cores

**Unit 6242**

2 cores

**Unit 6243 Upper Palaeolithic**

1 bladelet core

**Unit 6245**

1 flake

**Unit 6246**

3 flakes

1 debris

**Unit 6247**

1 notched tool on small flake

1 flake

**Unit 6248 Middle Palaeolithic**

1 discoidal core

**Unit 6249**

1 core

1 flake

**Unit 6252**

1 core

1 flaked pebble

**Unit 6253**

1 core

**Unit 6256 Upper Palaeolithic**

1 angle burin on fracture, made on core

**Unit 6257 Middle Palaeolithic**

1 Levallois flake

1 denticulated tool on flake

**Unit 6258 Middle Palaeolithic**

1 lateral simple concave sidescraper on Levallois flake

2 cores

2 flakes

**Unit 6259**

2 retouched flakes

1 flake

**Unit 6260**

1 denticulated tool on flake

1 core

**Unit 6261**

1 core  
2 flakes

**Unit 6265**

1 retouched flake  
1 core

**Unit 6266**

1 core  
1 debris

**Unit 6267 Upper Palaeolithic**

1 truncated tool with marginal retouch on blade

**Unit 6269**

1 flake  
1 core of chopping-tool type

**Unit 6271 Middle Palaeolithic, Upper Palaeolithic**

1 obliquely truncated tool on flake  
1 déjeté sidescraper  
2 retouched flakes  
1 core  
1 flaked pebble

**Unit 6274**

1 debris

**Unit 6275 Middle Palaeolithic**

1 transversal convex sidescraper  
2 flakes

**Unit 6276**

1 core

**Unit 6278 Upper Palaeolithic**

1 unretouched bladelet, broken

**Unit 6279 Upper Palaeolithic**

1 blade core

## BORGIO BAINSISSA

**Unit 6292 Upper Palaeolithic**

1 blade retouched on both sides, broken

**Unit 6295**

1 flake

**Unit 7254 Middle Palaeolithic**

1 discoidal core  
1 core of chopping-tool type  
1 flake

**Unit 7260**

1 flaked pebble

**Unit 7261**

2 cores

**Unit 7262 Middle Palaeolithic**

1 Levallois flake

## COLLE DEL PERO EST

**Unit 7007 Upper Palaeolithic**

1 blade retouched on both sides

**Unit 7008 Upper Palaeolithic**

1 carinated nose-ended endscraper made on core  
1 core

**Unit 7009**

1 flake  
1 core

**Unit 7010 Middle Palaeolithic**

1 "protocentripetal" core  
2 flakes  
1 core

**Unit 7011 Middle Palaeolithic**

2 sidescrapers: 1 transversal convex "*Quina* type", 1 lateral straight  
1 "protocentripetal" core  
6 flakes  
2 cores

**Unit 7013 Upper Palaeolithic**

1 blade core

**Unit 7014**

1 core

**Unit 7017**

1 core

**Unit 7018 Middle Palaeolithic**

2 sidescrapers: 1 transversal convex, 1 déjeté  
1 flake



**Unit 7023**

1 dihedral flake

**Unit 7024**

2 flakes

**Unit 7025 Middle Palaeolithic**

1 lateral simple convex sidescraper

1 discoidal core

## PISCINA DI RODI

**Unit 7116**

1 core

**Unit 7126**

1 core

**Unit 7133 Upper Palaeolithic**

1 bladelet core

**Unit 7134**

1 core

1 flake

**Unit 7135**

1 denticulated tool on flake

**Unit 7136**

1 flake

**Unit 7151**

2 cores

**Unit 7153**

1 small core

**Unit 7180**

2 cores

## STRADA DELLA COSTA

**Unit 7147**

1 retouched flake

2 flakes

1 core

1 debris

**Unit 7156**

1 core

**Unit 7159 Upper Palaeolithic**

1 blade core

**Unit 7161**

1 denticulated tool on cortical flake

1 flake

**Unit 7166**

1 flake

**Unit 7169 Middle Palaeolithic**

1 discoidal core

**Unit 7170**

1 core

**Unit 7211**

1 flake of great size (L = 67 mm)

**Unit 7215**

1 core

**Unit 7216**

1 flake

**Unit 7217**

1 core

3 flakes

**Unit 7218**

2 cores

**Unit 7219**

2 retouched flakes

**Unit 7223**

1 flaked pebble

**Unit 7225**

1 core

## ACCIARELLA

**Unit 7183**

1 flake

## VITELLARA

**Unit 7226**

2 flakes

**Unit 7230**

1 flake

**Unit 7231**

1 core

**Unit 7233**

1 flake

**Unit 7235**

1 flake

**Unit 7236 Middle Palaeolithic**

1 lateral simple convex sidescraper

**Unit 7244**

2 flaked pebbles

**Unit 7246**

1 flake

**Unit 7248 Middle Palaeolithic**

1 convergent convex sidescraper

STRADA DEL BOSCO

**Unit 7242 Middle Palaeolithic**

1 fragment of discoidal core

## APPENDIX 2. DESCRIPTION OF LITHIC INDUSTRY FROM THE NETTUNO 2004/2005 SURVEY

Appendix 2 presents a description of the lithic industry found during the block surveys of 2004 and 2005 in the Nettuno area. Finds have been ordered by location (toponym); for each location, all lithic artefacts are described by unit and, where possible, dated. The formal tools are described according to the standard Bordeaux taxonomy (Bordes, 1961; Bietti, 1976/77), while the débitage is classified according to the definitions introduced by J. Tixier (Tixier *et al.*, 1980; see also Bietti, 1976/77).

## QUARTO DELLA CAMPANA

**Unit 1040 Upper Palaeolithic**

1 fragment of unretouched blade

**Unit 1062**

1 flake

**Unit 1063 Middle Palaeolithic**

2 flakes, one of mousterian type

## OSPEDALETTO 1

**Unit 1050**

1 flake

**Unit 1071**

1 flake

2 debris

**Unit 1052**

1 flake

**Unit 1072 Middle Palaeolithic**

1 déjeté sidescraper, 1 flake

**Unit 4088**

3 cores

**Unit 1074**

1 core

1 flake

**Unit 4089**

1 debris

**Unit 1077**

1 denticulated tool

1 debris

**Unit 4090**

2 flakes

1 core

**Unit 1078 Upper Palaeolithic**

1 fragment of unretouched bladelet

**Unit 4095**

1 flake

**Unit 1080**

3 flakes

## FOSSO DELLO SBIRRO 1

**Unit 1081**

3 flakes

1 core

**Unit 1057**

1 core

**Unit 1082**

1 flake

**Unit 1058**

1 debris

**Unit 1083**

1 flake

**Unit 1060 Upper Palaeolithic**

1 fragment of unretouched bladelet

**Unit 1086**

3 flakes

**Unit 1061 Middle Palaeolithic**

1 discoidal core

2 flakes

1 debris

**Unit 1087**

4 flakes

1 debris

**Unit 1088**

1 flake

**Unit 1090**

1 flake

**Unit 1093**

1 flake

**Unit 1094 Upper Palaeolithic**

1 unretouched blade

1 flake

**Unit 1097**

2 flakes

1 debris

**Unit 1098 Middle Palaeolithic**

3 flakes, one of Mousterian type

**Unit 1099 Upper Palaeolithic**

1 fragment of truncated backed bladelet

**Unit 1100 Middle Palaeolithic**

1 déjeté sidescraper

**Unit 1102 Middle Palaeolithic**

1 lateral simple straight sidescraper

1 flake

## QUARTO DELLA CAMPANA 2

**Unit 1105**

1 flake

1 core

**Unit 1106**

1 borer on pebble

**Unit 1111**

1 notched tool

2 flakes

**Unit 1112**

2 flakes

**Unit 1113**

1 core

3 debris

**Unit 1114**

1 flake

2 debris

## MACCHIA DELLE GRUGNOLE 1

**Unit 1115**

1 flaked pebble

**Unit 1116**

1 flake

**Unit 1117**

1 flake

**Unit 1118**

1 flake

**Unit 1120**

1 core

**Unit 1121**

1 core

## MACCHIA DELLE GRUGNOLE 2

**Unit 1148**

1 borer on flake

1 retouched flake

**Unit 1149 Middle Palaeolithic**

1 lateral simple convex sidescraper

1 notched tool on pebble

**Unit 1150 Upper Palaeolithic**

1 unretouched blade, broken

1 flake

**Unit 1201 Middle Palaeolithic**

1 discoidal core

1 flake

## ORTI MAONI 1

**Unit 1154**

1 flake

**Unit 1160**

1 flake

**Unit 1165**

1 core

**Unit 1166**

1 flake

<b>Unit 1170</b> 1 flake	<b>Unit 1230</b> 3 cores
<b>Unit 1173</b> 1 flake	<b>Unit 1232</b> 1 flake
<b>Unit 1174</b> 1 core	PANTANI DELL'INTOSSICATA
ORTI MAONI 2	<b>Unit 1205</b> 1 core
<b>Unit 1177</b> 1 flake	<b>Unit 1235</b> 1 core 1 debris
<b>Unit 1178</b> 1 core	<b>Unit 1237</b> 1 flake
<b>Unit 1179</b> 1 retouched flake	<b>Unit 1238 Upper Palaeolithic</b> 1 fragment of unretouched bladelet 1 flake 2 cores
<b>Unit 1180</b> 1 flake	
<b>Unit 1181</b> 4 flakes	PISCINA DELLA FARNA
<b>Unit 1186</b> 1 flake	<b>Unit 1239 Middle Palaeolithic</b> 1 double déjeté sidescraper 1 Levallois flake 1 flake
I CIOCCATI	
<b>Unit 1222 Middle Palaeolithic</b> 1 lateral simple concave sidescraper 2 flakes 1 flaked pebble	LE GRUGNOLE 1
<b>Unit 1225</b> 1 flake	<b>Unit 1246</b> 1 flake
<b>Unit 1227</b> 1 flake 1 core 2 flaked pebbles	<b>Unit 1250</b> 1 core
<b>Unit 1228</b> 2 flakes	<b>Unit 1252</b> 1 borer
<b>Unit 1229</b> 1 flake 1 core	LE GRUGNOLE 2
	<b>Unit 1263 Upper Palaeolithic</b> 1 crested blade, broken
	<b>Unit 1264</b> 1 retouched flake

## FICO MANCINO

**Unit 1476**

1 core

**Unit 1290**

1 flake

## CERRETO ROVINO 2

**Unit 1295**

1 flake

**Unit 1381**

1 notched tool on flake

**Unit 1296**

1 flake

**Unit 1393**

1 flake

## SCOPONE 1

**Unit 1396**

1 flake

**Unit 1335 Upper Palaeolithic**

1 truncated tool on broken blade

**Unit 1404**

1 core

**Unit 1338**

1 flake

**Unit 1409 Upper Palaeolithic**

1 retouched blade

## CERRETO ROVINO 1

**Unit 1410**

1 flake

**Unit 1350**

1 core

**Unit 1416**

2 flakes

**Unit 1353**

1 flake

**Unit 1417**

1 core

## CAMPO CERRETO

**Unit 1422**

1 flake

**Unit 1358**

1 core

**Unit 1427 Middle Palaeolithic**

1 Levallois flake

**Unit 1360**

1 flake

1 flake

**Unit 1362**

1 flaked pebble

**Unit 1438**

1 core

**Unit 1364**

1 borer on flake

**Unit 1440**

1 debris

## SCOPONE 2

**Unit 1440**

1 flake

**Unit 1372 Middle Palaeolithic**

1 fragment of sidescraper

**Unit 1450**

1 core

**Unit 1474**

1 notched tool on flake

## FARNETOZZO MONTEBELLO

**Unit 1470**

1 flake

**Unit 1473**

3 flakes

TRE CANCELLI

**Unit 1478 Upper Palaeolithic**

1 retouched bladelet

PADIGLIONE

**Unit 2015**

1 flake

**Unit 2019**

1 chopping tool on small pebble

**Unit 2020**

3 flakes

**Unit 2022**

1 core

**Unit 2024**

1 flake

**Unit 2025 Middle Palaeolithic**

2 fragments of sidescrapers

1 flake

1 core

**Unit 2026**

1 retouched flake

2 cores

TAGLIO DELL'ARMELLINO 1

**Unit 2027**

1 flake

**Unit 2028**

3 flakes

**Unit 2029**

1 denticulated tool

1 flake

**Unit 2031**

1 flake

**Unit 2032 Middle Palaeolithic**

1 lateral double convex-concave sidescraper

**Unit 2033 Middle Palaeolithic**

1 lateral simple sidescraper, broken

**Unit 2035**

1 flake

**Unit 2036 Upper Palaeolithic**

1 fragment of retouched blade

1 fragment of retouched bladelet

1 flake

2 cores

**Unit 2038 Upper Palaeolithic**

1 unretouched bladelet, broken

**Unit 2039**

1 debris

**Unit 2042**

1 flake

SANDALO

**Unit 2064 Upper Palaeolithic**

1 bladelet core

SPADELLATA

**Unit 2084**

1 retouched flake

CERVICIONE 1

**Unit 2093 Upper Palaeolithic**

1 bladelet core

**Unit 2094**

1 flake

STRADONE VALLE SCHIOIA

**Unit 2101**

1 debris

**Unit 2106**

1 debris

**Unit 2109**

1 flake

**Unit 2112**

2 flakes

**Unit 2113**

1 flake

**Unit 2318**

1 core

**Unit 2331 Upper Palaeolithic**

1 bladelet core

**Unit 2337**

2 cores

## FOSSO DELL'ARMELLINO

**Unit 2124**

1 notched tool on flake

**Unit 2126**

1 debris

## CERVICIONE 2

**Unit 2134**

1 flake

**Unit 2142**

1 notched tool on thick flake

**Unit 2143 Upper Palaeolithic**

1 bladelet core.

## STRADONE CAMPANA

**Unit 2158**

1 denticulated tool with inverse retouch

1 core

**Unit 2159 Middle Palaeolithic**

1 lateral simple concave sidescraper

**Unit 2161**

2 flakes

## LA SECCIA

**Unit 2162**

1 retouched flake

**Unit 2165**

1 debris

**Unit 2170**

1 flake

1 core

**Unit 2173**

1 core

**Unit 2177 Middle Palaeolithic**

1 discoidal core

## OSPEDALETTO 2

**Unit 2200**

1 flake

1 core

**Unit 2202 Middle Palaeolithic**

1 transversal convex sidescraper

## TORRE DEL MONUMENTO

**Unit 2208**

1 flake

**Unit 2209**

1 flake

**Unit 2210**

1 retouched flake

1 flake

**Unit 2213**

1 denticulated tool

1 flake

## ZUCCHETTI 1

**Unit 2216**

1 flake

1 core

**Unit 2226**

1 denticulated tool on flake

**Unit 2292**

1 core



**Unit 2294**

1 flake

**Unit 2295**

1 flake

## ZUCCHETTI 2

**Unit 2232**

1 debris

**Unit 2235**

1 flake

**Unit 2246 Upper Palaeolithic**

1 unretouched bladelet

**Unit 2248 Upper Palaeolithic**

1 angle burin on fracture made on blade

**Unit 2249**

1 flake

**Unit 2250**

1 flake

**Unit 2251**

1 flake

1 debris

**Unit 2258**

1 flake

**Unit 2259**

1 retouched flake

1 flake

**Unit 2260 Upper Palaeolithic**

1 angle burin on fracture made on flake

**Unit 2261**

1 flake

**Unit 2264**

1 flake

**Unit 2266**

1 flake

**Unit 2269**

1 flake

1 debris

**Unit 2271 Upper Palaeolithic**

1 multiple mixed burin on flake

1 flake

**Unit 2279 Upper Palaeolithic**

1 retouched blade, broken

## LA FOSSA

**Unit 2300**

2 flakes

1 core

**Unit 2301 Upper Palaeolithic**

1 unretouched blade

1 crested blade, broken

1 core

**Unit 2302**

1 flake

## CADOLINO 1

**Unit 2304**

1 flake

**Unit 2306 Upper Palaeolithic**

1 retouched blade

**Unit 2308**

1 flake

1 debris

**Unit 2309**

1 flake

1 core

**Unit 2310**

2 flakes

**Unit 2314 Upper Palaeolithic**

1 flat nose-ended endscraper on flake

1 flake

**Unit 4166 Middle Palaeolithic**

1 discoidal core

**Unit 4167**

2 flakes

**Unit 4168 Middle Palaeolithic**

1 retouched flake (Levallois ?)

**Unit 4169**

3 flakes

**Unit 4171**

1 flake

**Unit 4172 Middle and Upper Palaeolithic**

1 carinated nose-ended endscraper

1 déjeté sidescraper

1 notched tool on small flake

1 discoidal core

1 flake

**Unit 4173**

1 borer with inverse retouch made on flake

1 flake

**Unit 4174 Middle Palaeolithic**

1 lateral simple convex sidescraper

## TAGLIO DELL'ARMELLINO 2

**Unit 2341**

1 core

## SPINO BIANCO

**Unit 2348**

1 core

**Unit 2359 Upper Palaeolithic**

1 retouched blade

## CASALE CENSI

**Unit 2376**

1 flake

1 core

**Unit 2384**

1 flake

**Unit 2385**

1 flake

2 cores

## CADOLINO 2

**Unit 2393**

1 retouched flake

**Unit 2395**

2 flakes

1 core

**Unit 2399 Middle Palaeolithic**

1 naturally backed knife

## FOSSO DELLA SECCIA

**Unit 2405**

1 retouched flake

## QUARTO DELLA SECCIA

**Unit 2413 – Upper Palaeolithic**

1 bladelet core

## LA CAMPANA

**Unit 4002 Upper Palaeolithic**

1 fragment of retouched blade

1 flake

1 core

**Unit 4004**

1 retouched flake

**Unit 4006**

1 denticulated tool

**Unit 4007**

1 retouched flake

**Unit 4008**

1 flake

**Unit 4028**

1 flake

**Unit 4036**

1 flake

**Unit 4040**

3 flakes

1 core

**Unit 4045**

1 debris

**Unit 4051**

1 debris

**Unit 4062**

1 flake

**Unit 4063 Middle Palaeolithic**

1 chopping tool

1 lateral simple straight sidescraper

**Unit 4073 Middle Palaeolithic**

1 discoidal core

1 debris

**Unit 4077**

1 flake

**Unit 4078**

1 flake

**Unit 4080**

1 flake

1 core

1 debris

**Unit 4085**

1 denticulated tool with alternating retouch obtained from a core fragment

**Unit 4086**

1 "esquillé" tool made on core

1 flake

## FOSSO DELLO SBIRRO 2

**Unit 4098 Middle Palaeolithic**

1 flake of mousterian type

**Unit 4099 Middle Palaeolithic**

1 naturally backed knife, broken

**Unit 4101**

1 flake

**Unit 4102 Middle Palaeolithic**

1 discoidal core

**Unit 4103 Middle Palaeolithic**

1 transversal concave sidescraper

**Unit 4104 Upper Palaeolithic**

1 fragment of unretouched bladelet

4 debris

**Unit 4106**

1 flake

1 core

**Unit 4107**

1 retouched flake

2 flakes

**Unit 4108 Middle Palaeolithic**

1 convergent convex sidescraper

1 discoidal core

1 flake

**Unit 4109**

1 debris

**Unit 4110 Middle Palaeolithic**

1 discoidal core

**Unit 4111**

1 flake

1 core

**Unit 4112**

1 retouched flake

1 flake

## CADOLINO 3

**Unit 4121 Upper Palaeolithic**

1 unretouched blade

**Unit 4123**

2 flakes

**Unit 4126**

1 flake

## FOSSO DEL QUINTO 1

**Unit 4137 Middle Palaeolithic**

1 fragment of discoidal core

**Unit 4138**

1 flake

1 debris

**Unit 4139**

1 core of chopping-tool type

**Unit 4141 Upper Palaeolithic**

1 notched tool on flake  
 1 fragment of unretouched bladelet  
 2 flakes

**Unit 4142**

2 flakes

**Unit 4143**

2 flakes  
 1 debris

**Unit 4144 Middle Palaeolithic**

1 lateral simple convex sidescraper  
 3 debris

**Unit 4145 Upper Palaeolithic**

1 fragment of unretouched bladelet  
 1 debris

**Unit 4146 Middle and Upper Palaeolithic**

1 lateral simple convex sidescraper  
 1 angle burin on fracture made on cortical flake

**Unit 4149**

1 debris

**Unit 4150 Upper Palaeolithic**

1 angle burin on fracture made on flake  
 1 partially truncated tool  
 1 great size point (L = 99 mm)  
 1 unretouched blade, broken  
 2 flakes

**Unit 4151**

2 flakes  
 1 debris

**Unit 4153**

1 debris

**Unit 4155 Middle and Upper Palaeolithic**

1 retouched blade on two sides  
 1 small flake retouched on three sides  
 1 flake of mousterian type  
 1 discoidal core  
 1 flake  
 1 debris

**Unit 4156**

1 flake

**Unit 4160**

1 flake

MELAZZETO GRUGNOLE

**Unit 4177**

1 notched tool on small flake

**Unit 4178**

1 core

**Unit 4180**

1 flake

**Unit 4182 Upper Palaeolithic**

1 unretouched blade, broken

**Unit 4188 Middle Palaeolithic**

1 small flake of mousterian type

**Unit 4191**

1 retouched flake  
 1 flake

**Unit 4196**

1 flake

**Unit 4201**

1 retouched flake

**Unit 4221 Upper Palaeolithic**

1 unretouched blade, broken

**Unit 4224**

1 debris

FOSSO DEL QUINTO 2

**Unit 4226**

1 flake

**Unit 4227**

1 borer on flake  
 2 flakes  
 1 core of chopping-tool type  
 2 debris

**Unit 4228**

1 "esquillé" tool on flake

**Unit 4229**

3 flakes

**Unit 4230**

1 flake

**Unit 4231**

2 flakes  
1 debris

**Unit 4233**

1 borer obtained from a pebble fragment

**Unit 4235**

1 retouched flake  
2 flakes

**Unit 4236 Middle Palaeolithic**

1 sidescraper with inverse retouch  
1 retouched flake  
1 flake of mousterian type  
2 discoidal cores  
10 flakes  
1 core  
3 debris

**Unit 4240**

1 flake  
1 core of chopping-tool type

**Unit 4241**

1 retouched flake

**Unit 4242**

6 flakes  
3 cores  
1 debris

**Unit 4243**

1 *rabot* on pebble  
2 flakes  
4 debris

**Unit 4246**

2 flakes

**Unit 4247 Middle Palaeolithic**

1 lateral simple convex sidescraper

**Unit 4249**

1 flake

**Unit 4250 Middle Palaeolithic**

1 sidescraper with bifacial retouch  
3 flakes

**Unit 4251**

1 notched tool with inverse retouch on flake

**Unit 4252**

2 debris

**Unit 4253 Upper Palaeolithic**

1 small circular carinated endscraper (22×20×13)  
1 fragment of unretouched blade  
1 flake  
3 debris

**Unit 4254 Upper Palaeolithic**

1 circular carinated endscraper (34×32×19)  
4 flakes  
1 flaked pebble

**Unit 4255 Upper Palaeolithic**

1 fragment of retouched blade  
5 flakes  
1 core  
4 flaked pebbles  
2 debris

**Unit 4257**

1 flake

**Unit 4258**

1 flake

**Unit 4259**

1 notched tool made on core  
1 flake  
1 core

**Unit 4263 Middle Palaeolithic**

1 déjeté sidescraper  
1 flake

**Unit 4264**

1 notched tool with inverse retouch on flake  
1 retouched flake  
1 flake  
1 core  
2 debris

**Unit 4265 Upper Palaeolithic**

1 axial dihedral “déjeté” burin

**Unit 4266**

1 flake

**Unit 4273 Middle Palaeolithic**

1 déjeté sidescraper  
1 dihedral flake

**Unit 4277**

1 flake  
1 debris

**Unit 4278**

1 flake  
1 core

**Unit 4279**

2 flake

**Unit 4280**

1 flake  
1 debris

**Unit 4281**

1 flake

**Unit 4282**

1 debris

**Unit 4283 Middle Palaeolithic**

1 lateral simple straight sidescraper  
1 retouched flake  
1 denticulated tool obtained from a pebble fragment  
4 flakes

**Unit 4284**

1 flake  
1 core of chopping-tool type

**Unit 4285**

2 flakes

**Unit 4286**

2 flakes

**Unit 4289**

1 flaked pebble  
1 debris

**Unit 4291**

1 flake

## APPENDIX 3. CATALOGUE OF SITES SURVEYED IN 2003

This catalogue of sites presents information on all sites surveyed in 2003, during both revisits and block surveys. Where collected, diagnostic sherds are presented in this catalogue (off-site material is not included; the drawings are shown at the end of the appendix). We must note that for a few sites additional material has been gathered during block surveys and revisits in later years; this material will be presented in the second report on our surveys in the Nettuno area. In such cases the site description includes a note that the site was investigated in later years.

## SITE DESCRIPTION

The site description consists of:

1. Site-identifiers (Piccarreta site id and a five-digit site ID assigned by us).
2. Where available, a toponym.
3. Site coordinates (Roma 1940 Gauss Boaga est).
4. A description of the location of the site, present-day land use, visibility conditions and survey method. For an explanation of the survey and sampling strategy, the reader is referred to the discussion in sections 3.2 and 4.2.
5. A description of the type of sample collected and the number of fragments that has been included in the catalogue.
6. A description of the finds. We present the finds collected in 2003 and those collected by Piccarreta separately.
7. Remarks. We have here included size estimates if available and notes on resurveys in later years (that will be published in the second report).
8. References to previous publications.

## SHERD DESCRIPTION

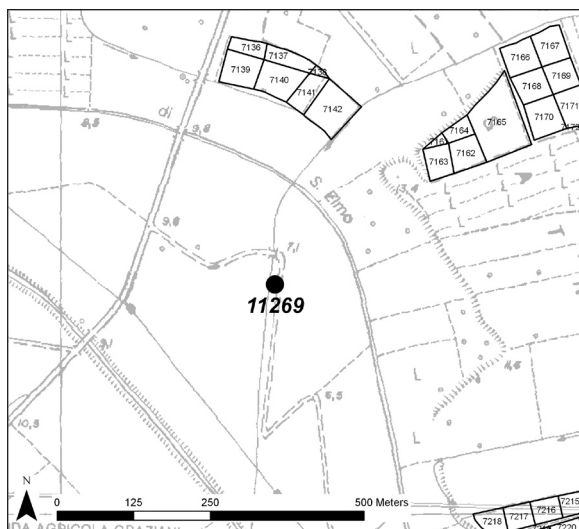
Each site description is followed by a description of the diagnostic ceramic fragments and accompanying drawings (scale 1:2 unless otherwise indicated); however, for a considerable number of sites we were only able to collect small samples lacking (typologically) diagnostic fragments.

The ceramic material is presented in the following seven groups: tiles; large storage and transport vessels; *impasto*; coarse wares; depurated wares; fine wares; miscellaneous. In the following, the terms and abbreviations used in the catalogue are explained, serving as an introduction to the sherd descriptions and drawings. The descriptions are, where possible, based on the description method used in the Satricum excavations (Maaskant-Kleibrink, 1987: 137 ff.). In the descriptions, the following characteristics are included for every sherd:

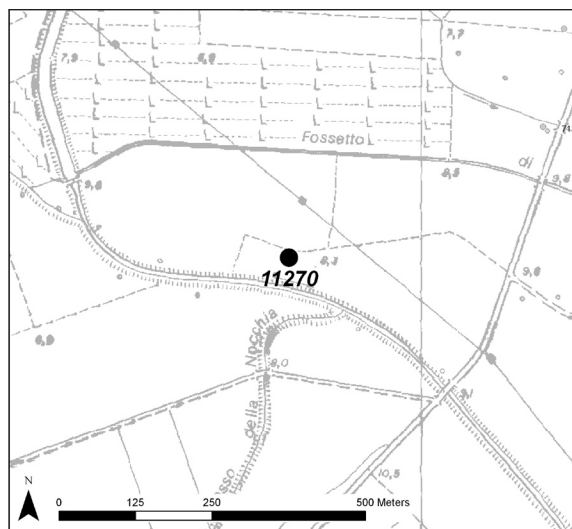
1. A number, referring to the sherd drawing, and the unique sherd number that consists of: the survey code, usually AS'03 (Astura 2003); for resurveyed Piccarreta sites, a site code, consisting of a P (Piccarreta) and the site number; the unit number, usually placed directly behind the survey code (units 6001-8033); the bag number, separated from unit number by a forward slash; the Individual sherd number. Not all sherds have been numbered in the same way; sometimes the sequence differs: for sherds found during the block survey the site code has not been included while for sites found during the revisits, a unit number sometimes misses.
2. A description of the shape of the fragment type (base, body, neck, rim, handle, etc.) as well as, where possible, vessel shape.
3. A description of the ware; since no fabric analyses were done, this ware classification can only be very general and sometimes wares are discerned on the basis of their surface finish. The wares discerned are:
  - *Impasto*: hand made coarse pottery, mainly dated to the Iron Age and Archaic period;
  - Coarse ware: wheel-turned pottery with large (visible to the naked eye) inclusions;
  - Depurated ware: wheel-turned pottery with hardly any or without inclusions visible to the naked eye. Generally, this material is of a very thin, powdery fabric, although also amphora sherds may be classified as depurated ware. Part of this class of material probably consists of black glazed, *terra sigillata* or possibly ARSW; conservation circumstances for surface finds sometimes cause the slip to be partially or totally eroded;
  - Black glazed: wheel-turned fine pottery of Republican date with a brown to black slip;
  - *Terra sigillata*: wheel-turned fine pottery with a red slip. This class is generally of Italian origin, dating from approximately 30 to the end of the first century AD (Ettlinger *et al.*, 1990);

- African red slip ware (ARSW): a class of very common kitchen and fine ware, produced in northern Africa from the end of the 1<sup>st</sup> century AD onwards (Hayes, 1972).
- 4. A detailed description of the profile. The shape of the base, body, neck, rim and lip are described, for handles the shape of the section as well. These descriptions are based on the method used for the Satricum publications, but this method is sometimes adjusted. Where present, surface features such as handle attachments, decorations, grooves or ridges are described as well.
- 5. For every sherd, a Munsell-value is noted for its surface colour (using the Munsell chart of 1975). Where a fresh fracture is present, core-colour is given as well; for *terra sigillata* and black glazed, the slip-colour is mentioned separately from the clay colour.
- 6. For every sherd characteristic measurements are given in cm. If only measurements and no abbreviations are given, these figures indicate maximum width and maximum depth in position, in cm. The following abbreviations are used:  
 S = Length and width of a section (of a handle).  
 D = Diameter (of a rim, base or sometimes wall, measured on the outside of the vessel).  
 H = Height of rim, base or entire sherd in the proper position.  
 T = Thickness (of a rim or wall).  
 W = Width of the rim of a tile.
- 7. Peculiarities not mentioned in the description are noted here, as well as a reference to a similar, drawn sherd if the piece itself has not been drawn.
- 8. References for parallels and a date is given based on the aforementioned parallels.



**Piccarreta site 69 (Site 11269)**

Toponym:	Casale Nuovo
Coordinates:	X: 2333412, Y: 4591549
Location and method:	the site itself was located in an inaccessible tomato field, but a ploughed field to the west was walked systematically
Samples:	grab sample (no catalogued fragments)
Finds 2003:	tiles ( <i>a.o.</i> Archaic fabric); coarse wares ( <i>a.o.</i> Archaic fabric); dolium; iron slags
Finds Piccarreta:	tiles; pieces of tuff and <i>peperino</i> ; coarse wares; amphorae; bricks; kiln debris/slugs
Remarks:	site has been surveyed systematically during block survey and revisit in 2004; material from this survey will be published in the 2 <sup>nd</sup> preliminary report
Reference:	Piccarreta, 1977: 87

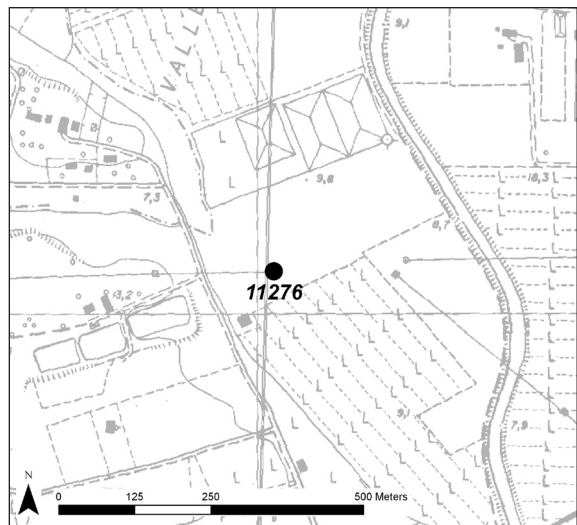
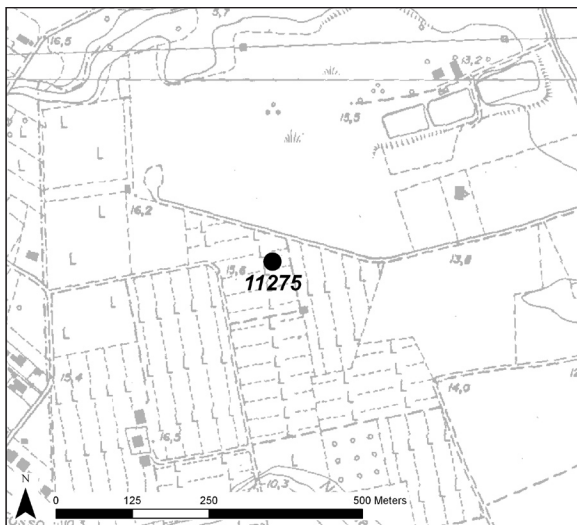
**Piccarreta site 70 (Site 11270)**

Toponym:	Casale Nuovo
Coordinates:	X: 2332848, Y: 4591674
Location and method:	the area has been levelled and finds are spread over a large area; the site is located in an inaccessible tomato field, but a narrow strip along the river Astura was explored
Samples:	grab sample (one catalogued fragment)
Finds 2003:	tiles ( <i>a.o.</i> Archaic fabric); coarse wares ( <i>a.o.</i> Archaic fabric); african red slip wares; iron slags
Finds Piccarreta:	tiles ("sabbiate"); coarse wares ( <i>a.o.</i> many <i>bacili</i> )
Remarks:	–
Reference:	Piccarreta, 1977: 87

*Fine wares***1. AS'03 P70/GS/1**

Rim fragment of a lid  
 African red slip ware  
 Straight rim thickened on the inside  
 and outside; convex lip; rim is blackened on the outside  
 2.5YR 4/1 dark grey; exterior rim 2.5YR 6/8 red  
 2.4 × 2.6; H1.6; Twall 0.5; Trim 0.8; D 22

*Cf. Hayes (1972), Form 196; mid 2<sup>nd</sup> – mid 3<sup>rd</sup> century AD*



**Piccarreta site 75 (Site 11275)**

Toponym: Fico Mancino  
 Coordinates: X: 2331516, Y: 4591885  
 Location and method: the area was in use as a melon field, the rows between the plastic were walked systematically  
 Samples: grab sample (no catalogued fragments)  
 Finds 2003: tiles; coarse ware (ao Archaic fabric); dolium (ao Archaic fabric); depurated ware  
 Finds Piccarreta: tiles (“sabbiate”); coarse wares  
 Remarks: –  
 Reference: Piccarreta, 1977: 87–88

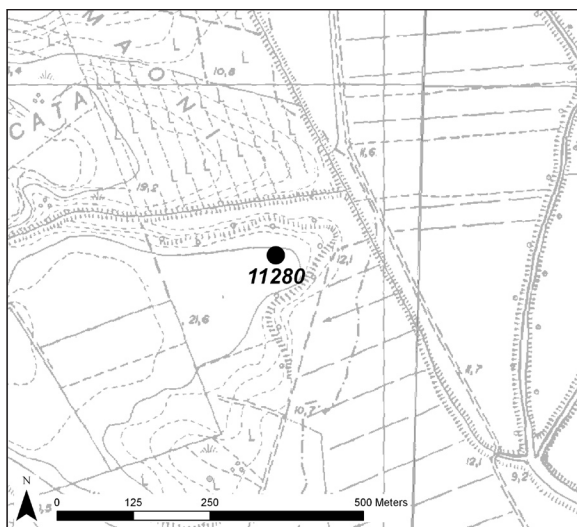
**Piccarreta site 76 (Site 11276)**

Toponym: –  
 Coordinates: X: 2332088, Y: 4592251  
 Location and method: the site was located in a stubble field with hardly any visibility; the field was walked systematically  
 Samples: grab sample (one catalogued fragment)  
 Finds 2003: coarse ware (Archaic fabric)  
 Finds Piccarreta: tiles (“sabbiate”); coarse wares  
 Remarks: –  
 Reference: Piccarreta, 1977: 87–88

*Coarse ware*

**1. AS’03 P76/GS/1**

Rim fragment of a jar  
 Archaic coarse ware  
 Straight rim thickened on the outside, convex to flattened lip  
 7.5YR 4/4 dark brown  
 4.2 × 2.1; H 3.1; Trim 1.8; D 14?

*Coarse and depurated wares***3. AS'03 P80/GS/3**

Rim fragment of a jar

Coarse ware

Outcurving rim thickened on the outside and slightly undercut; convex lip

Exterior and interior 7.5YR 4/3 brown; core 2.5YR 5/6 red

1.9 × 4.2; H 2.7; T wall 0.4; Trim 1.2; D 13

**Piccarreta site 80 (Site 11280)**

Toponym:	Orti Maoni/Intossicata
Coordinates:	X: 2331886, Y: 4593902
Location and method:	in the eastern part of the site a few meters of soil have been removed; the areas below the artificial cliff (a stubble field) and on top of the cliff were walked systematically
Samples:	grab sample (three catalogued fragments)
Finds 2003:	grumo; tiles; coarse ware ( <i>a.o.</i> Archaic fabric)
Finds Piccarreta:	tiles ("sabbiate e non sabbiate"); bricks; coarse wares; amphora
Remarks:	the site has been revisited a second time in 2004.
Reference:	Piccarreta, 1977: 88

*Tiles***1. AS'03 P80/GS/2**

Rim fragment of a tile

Coarse ware

Rectangular profile with rounded internal angle, flattened external angle; concave lip

7.5YR 7/6 pink

7.8 × 5.1; Hrim 5.6; Wrim 4.6; Tplate 2.3

**2. AS'03 P80/GS/1**

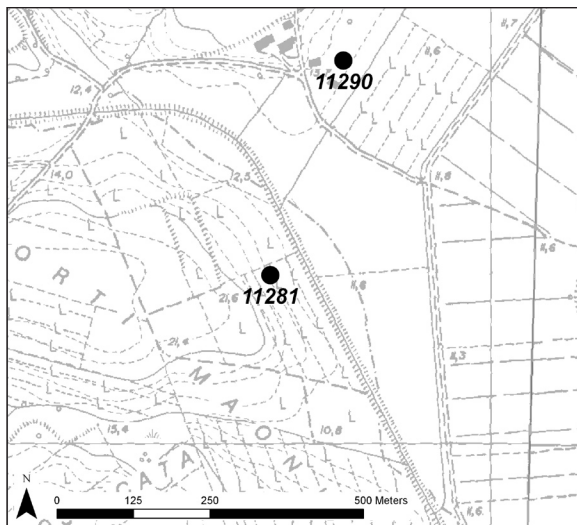
Rim fragment of a tile

Coarse ware

Rectangular profile with rounded internal angle and faceted external angle; flattened lip

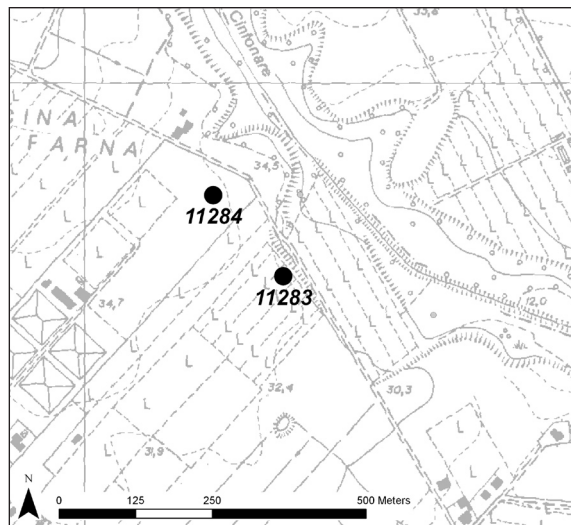
2.5YR 8/4 pale yellow

4.6 × 6.6; Hrim 5.9; Wrim 3.2



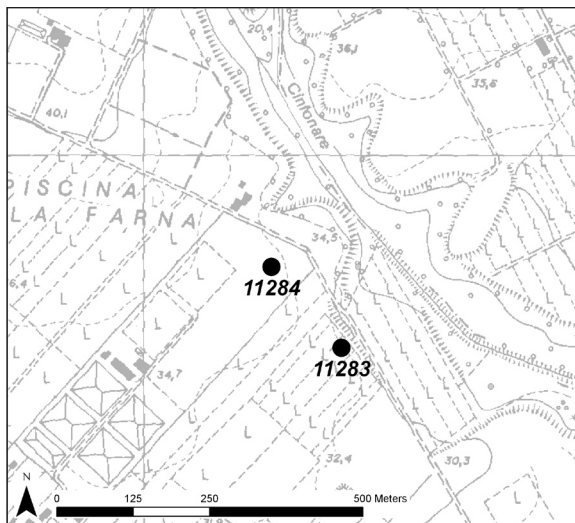
#### Piccarreta site 81 (Site 11281)

Toponym: Pantano del'Intossicata / Orti Maoni  
 Coordinates: X: 2331703, Y: 4594453  
 Location and method: the site has been largely destroyed by levelling; the area, partly fallow, partly in use as a vineyard, was walked systematically  
 Samples: grab sample (no catalogued fragments)  
 Finds 2003: tiles; coarse wares (*a.o.* Archaic fabric)  
 Finds Piccarreta: tiles ("sabbiate e non sabbiate"); bricks; coarse wares; amphora  
 Remarks: the site has been surveyed systematically during the block survey in 2004.  
 Reference: Piccarreta, 1977: 88



#### Piccarreta site 83 (Site 11283)

Toponym: -  
 Coordinates: X: 2330387, Y: 4594864  
 Location and method: the site is located in a vineyard with very adverse visibility conditions because the soil was very dusty; the area was walked systematically  
 Samples: no sample  
 Finds 2003: tiles; coarse wares  
 Finds Piccarreta: tiles ("sabbiate e non sabbiate"); bricks; coarse wares; amphora  
 Reference: Piccarreta, 1977: 88

*Fine wares***2. AS'03 P84GS/2**

Base fragment

Black glazed

Flaring base ring with rounded edge; exterior and interior concave

7.5YR 6/6 reddish yellow

5.4 × 3.8; Tbase 0.6; Tbase ring 0.8; D 4.5

Not drawn

**Piccarreta site 84 (Site 11284)**

Toponym: Piscina della Farna

Coordinates: X: 2330273, Y: 4594996

Location and method: the area was recently ploughed, but visibility conditions were very adverse because the soil was very dusty; the area was walked systematically

Samples: grab sample (two catalogued fragments)

Finds 2003: impasto; tiles; coarse wares; black glazed

Finds Piccarreta: tiles ("sabbiate e non sabbiate"); bricks; coarse wares; amphora; black glazed

Remarks: site was found c. 50 m from the spot indicated by Piccarreta and measured ca 20 by 30 m; it has been surveyed systematically during the block survey in 2004; material from this survey will be published in the 2<sup>nd</sup> preliminary report

Reference: Piccarreta, 1977: 88

*Coarse and depurated wares***1. AS'03 P84/GS/3**

Handle fragment

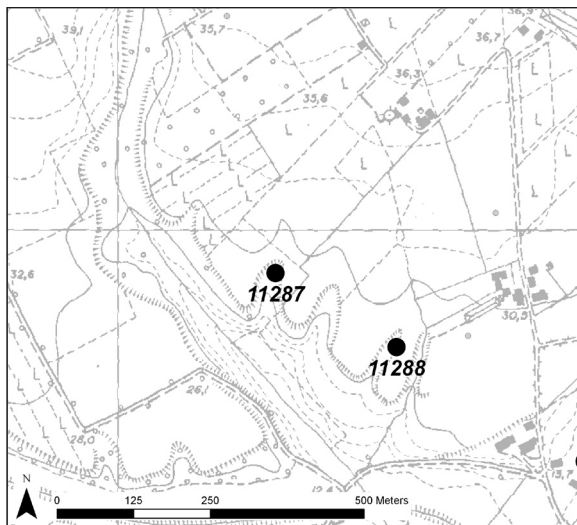
Coarse ware

horizontal ring handle, round in section

Exterior 5YR 6/6 reddish yellow; core 7.5YR 6/4 light brown

2.8 × 4.2

Not drawn



#### Piccarreta site 87 (Site 11287)

Toponym: —  
 Coordinates: X: 2331319, Y: 4595108  
 Location and method: located in a fallow field on the edge of a gully; the field was walked systematically, while the gully was briefly inspected  
 Samples: grab sample (one catalogued fragment)  
 Finds 2003: tiles; coarse wares (*a.o.* Archaic fabric)  
 Finds Piccarreta: tiles (“sabbiate”); coarse wares (“sabbiate e non sabbiate”, *a.o.* lid “di impasto sabbato con presa a bottone forato”); black glazed  
 Remarks: —  
 Reference: Piccarreta, 1977: 88

#### Tiles

##### 1. AS'03 P87/GS/1

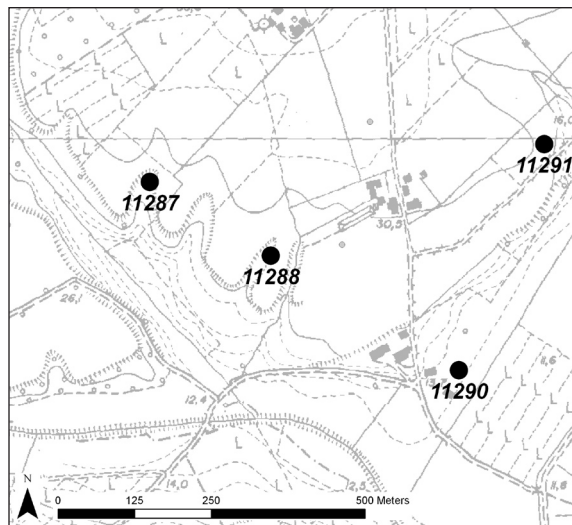
Rim fragment of a tile

Coarse ware

Rectangular profile with rounded internal and external angle; flattened lip

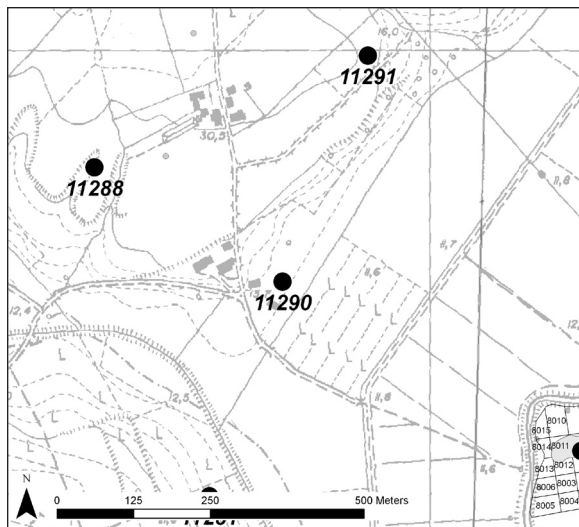
5YR 7/4 pink

11.7 × 6.1; Hrim 6.4; Wrim 4.4; Tplate 2.7



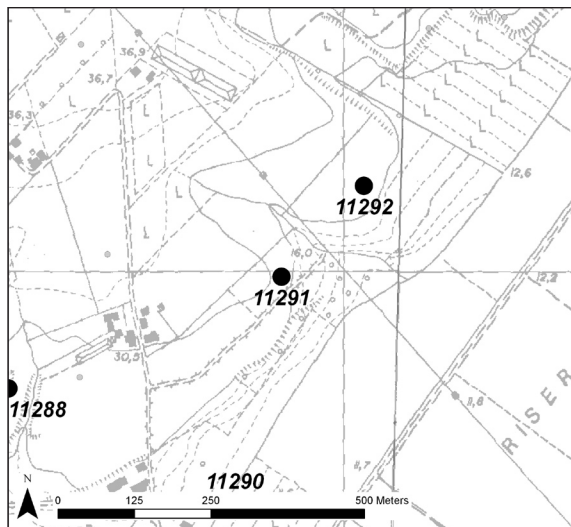
#### Piccarreta site 88 (Site 11288)

Toponym: —  
 Coordinates: X: 2331516, Y: 4594988  
 Location and method: area was partly fallow (stubble field), partly used to grow *zucchini*; the stubble field was walked systematically, while only the edge of the *zucchini* field could be inspected  
 Samples: no sample  
 Finds 2003: tiles; coarse wares  
 Finds Piccarreta: tiles (“sabbiate”); coarse wares (“sabbiate e non sabbiate”)  
 Remarks: —  
 Reference: Piccarreta, 1977: 88



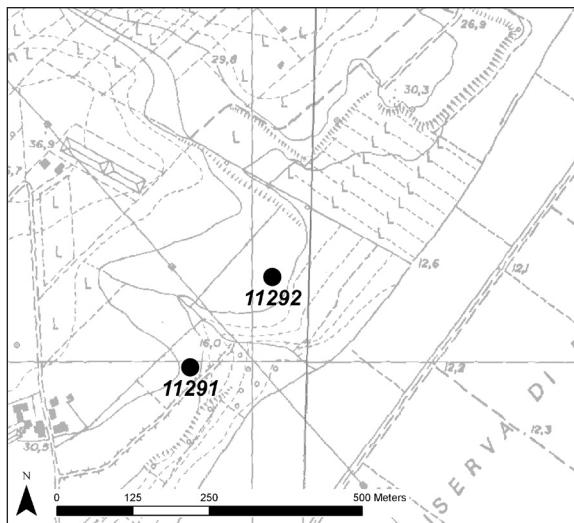
**Piccarreta site 90 (Site 11290)**

Toponym: —  
 Coordinates: X: 2331822, Y: 4594802  
 Location and method: the site has been partly overbuilt (two barns), and is partly in use as a fruit orchard with rather poor visibility conditions that was walked systematically  
 Samples: grab sample (no catalogued fragments)  
 Finds 2003: tiles; coarse wares (*a.o.* Archaic fabric)  
 Finds Piccarreta: tiles (“sabbiate”); coarse wares (“sabbiate e non sabbiate”)  
 Remarks: —  
 Reference: Piccarreta, 1977: 88



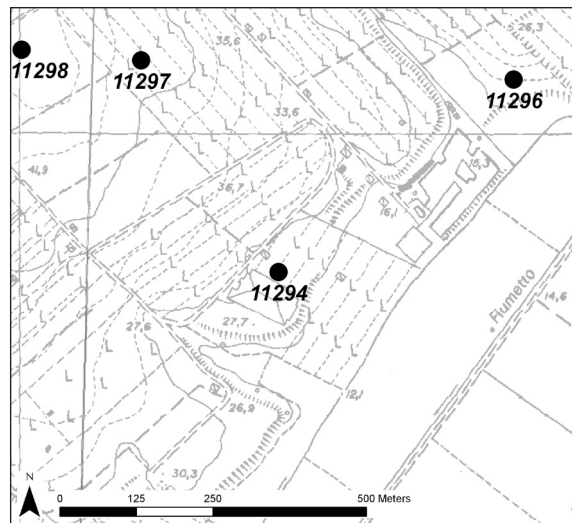
**Piccarreta site 91 (Site 11291)**

Toponym: —  
 Coordinates: X: 2331961, Y: 4595169  
 Location and method: the site is located on the edge of a ridge, partly in a fallow strip of land and partly in a corn field, both with rather poor visibility conditions. The entire fallow field was walked systematically, while only the edge of the corn field was inspected  
 Samples: grab sample (no catalogued fragments)  
 Finds 2003: tiles; coarse wares (ao Archaic fabric); dolium (Archaic fabric)  
 Finds Piccarreta: tiles (“sabbiate”); coarse wares (“sabbiate e non sabbiate”)  
 Remarks: the site has been surveyed systematically during the block survey in 2005; material from this survey will be published in the 2<sup>nd</sup> preliminary report  
 Reference: Piccarreta, 1977: 88



#### Piccarreta site 92 (Site 11292)

Toponym: —  
 Coordinates: X: 2332095, Y: 4595317  
 Location and method: the site is located on the edge of a ridge in a corn field that at the time was not accessible; only the edge of the field and an adjacent path were explored  
 Samples: no sample  
 Finds 2003: tiles; coarse wares  
 Finds Piccarreta: tiles (“sabbiate”); coarse wares (“sabbiate e non sabbiate”)  
 Remarks: —  
 Reference: Piccarreta, 1977: 88



#### Piccarreta site 94 (Site 11294)

Toponym: —  
 Coordinates: X: 2332484, Y: 4595952  
 Location and method: the site is located on the edge of a ridge, partly in a stubble field, partly in a fallow field; both were walked systematically  
 Samples: two grab samples (seven catalogued fragments)  
 Finds 2003: impasto (*a.o. impasto rosso*); tile (*a.o. Archaic fabric*); coarse wares (*a.o. Archaic fabric*); dolium (*Archaic fabric*); depurated wares; african red slip ware  
 Finds Piccarreta: ruins of vaulted rooms and cunicoli; piece of a mosaic; tiles (“sabbiate”); bricks; coarse wares; dolium; amphora  
 Remarks: —  
 Reference: Piccarreta, 1977: 88

#### Tiles

##### 1. AS'03 P94/GS1/2

Rim fragment of a tile

Coarse ware

Rectangular profile with slightly rounded internal angle and faceted external angle; flattened lip

2.5YR 5/6 red to 5YR 6/6 reddish yellow

5.6 × 12.2; Hrim 4.2; Tplate 2.1

Not drawn



*Coarse and depurated wares***2. AS\*03 P94/GS2/3**Rim fragment of a *pentola*

Coarse ware

Outturning, overhanging rim; flattened lip

7.5YR 2.5/1 black to 5YR 6/8 reddish yellow

5.2 × 1.4; H 1.9; Hrim 0.9; Twall 0.2; Trim 0.5; D 18

*Cf. Olcese (2003), TAVI, pentola type 1a: Augustean - Trajan***3. AS\*03 P94/GS2/1**

Base fragment

Coarse ware

Flat base with slightly thickened edge, inside concave

Exterior 2.5YR 8/2 pale yellow; core 2.5 8/3 pale yellow

6.5 × 5.1; H 1.5; Tbase 1.35; Twall 0.6; Dbase 5

**4. AS\*03 P94/GS1/1**

Handle fragment

Coarse ware

vertical band handle, oval in section

Exterior 7.5YR 4/2; core 5YR 5/8 yellowish red

5.7 × 2.9; Shandle 2.2 × 0.95

*Fine wares***5. AS\*03 P94/GS2/5**

Rim fragment of a bowl

African red slip ware

Flaring wall, straight rim thickened on the outside; convex lip.

Exterior and interior 2.5YR 6/8 light red; core 5YR 7/6 reddish yellow

3.4 × 1.8; H 3.0; Twall 0.4; Trim 0.8; D 27

*Cf. Hayes (1972), form 14A: mid 2<sup>nd</sup> century AD***6. AS\*03 P94/GS/6**

Rim fragment of a casserole

African red slip ware

Straight rim, is thickened on the outside and undercut; grooved lip

Exterior and interior 7.5YR 7/6 reddish yellow; core 7.5 YR 7/4 pink

1.7 × 1.9; Twall 0.3; Trim 1.3; D 18

Not drawn

*Cf. Hayes (1972), form 197, late 2<sup>nd</sup> - mid 3<sup>rd</sup> c AD***7. AS\*03 P94/GS2/4**

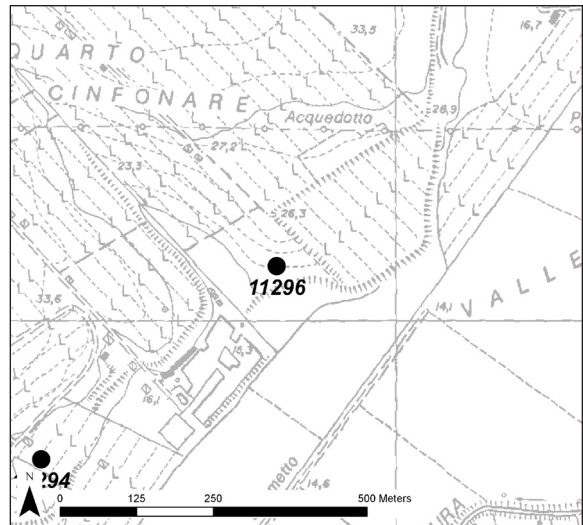
Rim fragment

African red slip ware

Straight rim, convex lip

Exterior 5YR 5/6 red; core 5YR 6/8 reddish yellow

1.7 × 0.8; H 2.0; Twall 0.55; Trim 0.6; D 26

**Piccarreta site 96 (Site 11296)**

Toponym: –

Coordinates: X: 2332867, Y: 4596266

Location and method: the site is located on the edge of a ridge, in a small ploughed strip of land next to a large vineyard; the small strip was walked systematically

Samples: grab sample (one catalogued fragment)

Finds 2003: tiles; coarse wares (*a.o.* Archaic fabric)

Finds Piccarreta: tiles (“sabbiate”); coarse wares; amphora

Remarks: –

Reference: Piccarreta, 1977: 88

*Tiles***1. AS\*03 P96/GS/1**

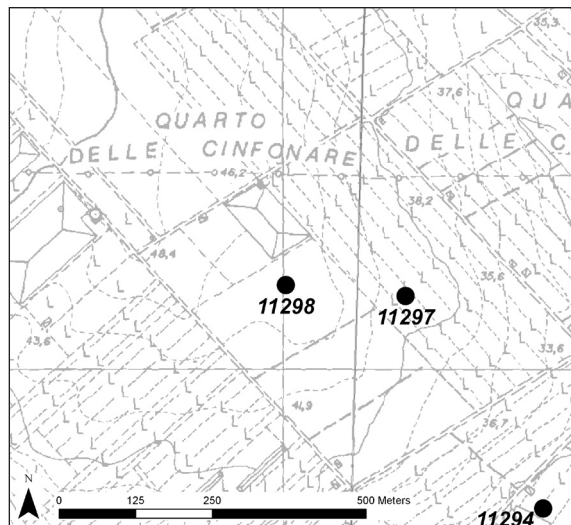
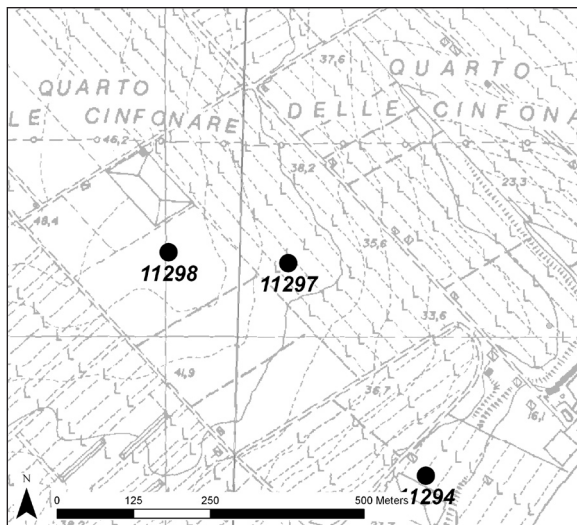
Rim fragment of a tile

Coarse ware

Rectangular profile with flattened internal and external angle; slightly concave lip

10YR 8/4 very pale brown

12.5 × 6.7; Hrim 6.7; Wrim 3.7; Tplate 2.5



#### Piccarreta site 97 (Site 11297)

Toponym: Quarto delle Cinfonare  
 Coordinates: X: 2332260, Y: 4596298  
 Location and method: the site is located in a vineyard with medium visibility conditions that was walked systematically  
 Samples: grab sample (no catalogued fragments)  
 Finds 2003: tiles; coarse wares (ao Archaic fabric); leucite-basalt grinding stone  
 Finds Piccarreta: pieces of tuff; tiles ("sabbiate"); coarse wares (ao ollae); dolium; large cylindrical grinding stone with central hole; bricks of a kiln; slags/wasters  
 Remarks: the site has been surveyed systematically during the block survey in 2004; material from this survey will be published in the 2<sup>nd</sup> preliminary report  
 Reference: Piccarreta, 1977: 88

#### Piccarreta site 98 (Site 11298)

Toponym: Quarto delle Cinfonare  
 Coordinates: X: 2332066, Y: 4596315  
 Location and method: the site is located in a vineyard with medium visibility conditions that was walked systematically  
 Samples: grab sample (three catalogued fragments)  
 Finds 2003: impasto (red sandy lumps); tiles; coarse wares (ao Archaic fabric); depurated wares; black glazed; leucite-basalt grinding stone  
 Finds Piccarreta: pieces of tuff; tiles ("sabbiate"); coarse wares (ao ollae); dolium; large cylindrical grinding stone with central hole; bricks of a kiln; slags/wasters  
 Remarks: the site has been surveyed systematically during the block survey in 2004; material from this survey will be published in the 2<sup>nd</sup> preliminary report  
 Reference: Piccarreta, 1977: 88

#### Tiles

##### 1. AS'03 P98/GS/4

Rim fragment of a tile

Coarse ware

Rectangular profile with rounded internal angle and flattened external angle; flattened lip.

Exterior 10YR 8/4 very pale brown; interior

10YR 8/4 very pale brown

11.0 × 5.1; Hrim 4.7; Wrim 3.0; Tplate 1.8

**2. AS'03 P98/GS/3**

Rim fragment of a tile

Coarse ware

Rectangular profile with flattened internal and external angle; flattened lip

exterior 5YR 8/4 pink; core 7.5YR 7/4 pink

9.5 × 12.5; Hrim 5.1; Wrim 4.4; Tplate 2.3

*Fine wares***3. AS'03 P98/GS/1**

Base fragment

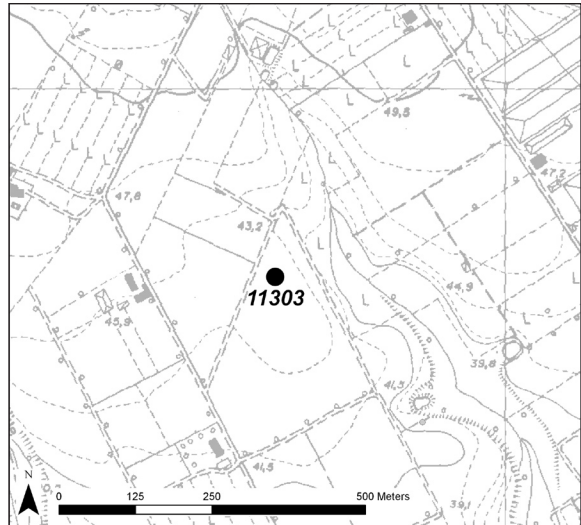
Black glazed

Flaring base ring with pointed edge, exterior and interior concave

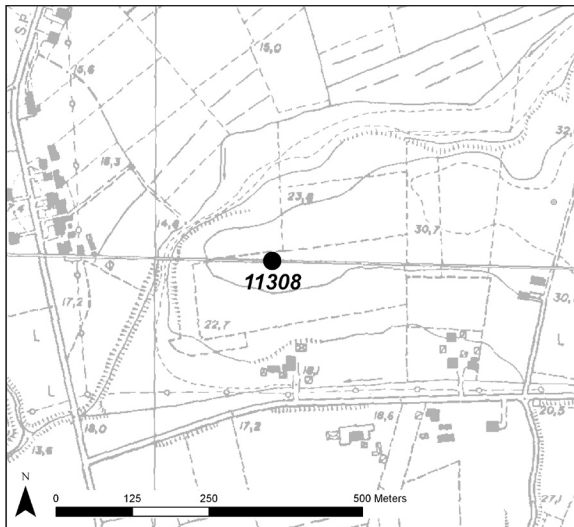
7.5YR 7/4 pink

3.4 × 1.8; H 1.5; Tbase 0.4; Tbase ring 1.4;

Twall 0.4

**Piccarreta site 103 (Site 11303)**

Toponym:	–
Coordinates:	X: 2330687, Y: 4595873
Location and method:	the site is located in a stubble field, which was walked systematically
Samples:	grab sample (no catalogued fragments)
Finds 2003:	impasto; coarse wares; glazed ware; glass; shells; pumice
Finds Piccarreta:	buried structures, probably of a villa rustica; tiles (“sabbiate”); bricks; coarse wares
Remarks:	–
Reference:	Piccarreta, 1977: 88



### Piccarreta site 108 (Site 11308)

Toponym:	—
Coordinates:	X: 2334253, Y: 4596732
Location and method:	the site is located on a hill crest, during the survey partly in use as a vineyard, partly fallow; both areas were walked systematically
Samples:	grab sample (six catalogued fragments)
Finds 2003:	tiles; coarse wares (ao Archaic fabric); dolium; amphora; black glazed; glass
Finds Piccarreta:	lumps of cement and <i>cocciopesto</i> ; tiles (“sabbiate e non sabbiate”); bricks; coarse wares; amphora
Remarks:	—
Reference:	Piccarreta, 1977: 89

#### *Large storage and transport vessels*

##### 1. AS\*03 P108/1

Rim fragment of a large storage jar  
 Archaic coarse ware  
 Outcurving rim thickened on the outside; convex lip  
 Exterior and interior 2.5YR 5/6 red  
 4.3 × 16.7; H 7.9; Twall 1.7; Trim 3.5; D 42

##### 2. AS\*03 P108/5

Rim fragment of an amphora  
 Depurated ware  
 Straight rim thickened on the outside; convex to flattened lip  
 Exterior and interior 5YR 6/6 reddish yellow  
 1.7 × 4.8; H 3.8; Twall 0.4; Trim 0.8; D 19

#### *Coarse and depurated wares*

##### 3. AS\*03 P108/4

Rim fragment of a bowl  
 Archaic coarse ware  
 Straight rim thickened on the outside; flattened lip  
 Exterior 5YR 3/1 very dark grey; interior 5YR 4/6 yellowish red to 5YR 3/1 very dark grey  
 2.0 × 0.9; H 1.3; Twall 0.5; Trim 0.8; D 16

##### 4. AS\*03 P108/10

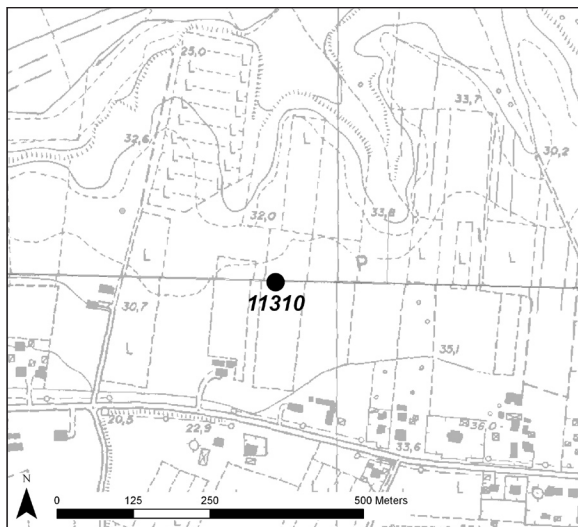
Rim fragment of a jar  
 Coarse ware  
 Straight rim thickened on the outside; pointed lip  
 Exterior 2.5YR 2.5/1 reddish black; interior 2.5YR 4/6 red  
 1.1 × 0.8; H 0.7; Trim 0.6; D 15

##### 5. AS\*03 P108/2

Rim fragment of a jar  
 Archaic coarse ware  
 Flaring wall, outcurving rim thickened on the outside; pointed lip  
 Exterior 2.5YR 5/6 red to 7.5YR 2/ black; interior 7.5YR 2/ black  
 4.4 × 2.4; H 3.2; Hrim 2.0; Twall 0.5; Trim 1.3; D 22

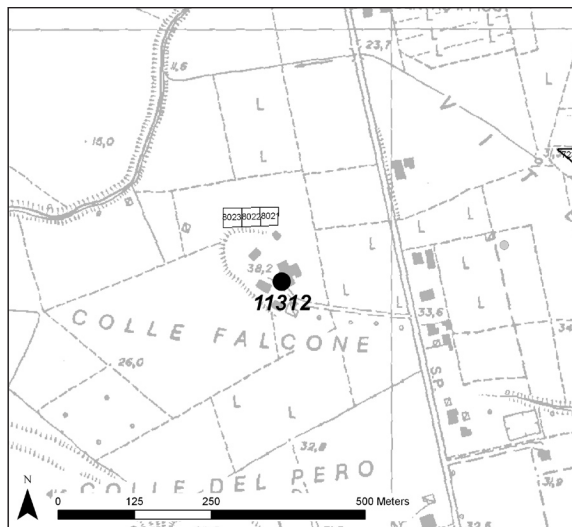
##### 6. AS\*03 P108/3

Rim fragment of a jar  
 Coarse ware  
 Straight rim thickened on the outside; convex to pointed lip  
 Exterior 2.5YR 5/8; interior and core 2.5YR 6/8  
 3.3 × 1.4; H 2.8; Twall 0.35; Trim 1.2; D 30  
*Cf. Olcese (2003) TAV.VIII, Jar type 3a: 2<sup>nd</sup> century BC – Augustean*



**Piccarreta site 110 (Site 11310)**

Toponym: —  
 Coordinates: X: 2334962, Y: 4596712  
 Location and method: the site is located on a hill crest, now in use as a vineyard that was walked systematically  
 Samples: grab sample (no catalogued fragments)  
 Finds 2003: tiles; coarse wares (ao Archaic fabric); depurated wares  
 Finds Piccarreta: tiles (“sabbiate e non sabbiate”); bricks; coarse wares; amphora  
 Remarks: The site largely seems to be ploughed out; only few and very small fragments were found  
 Reference: Piccarreta, 1977: 89



**Piccarreta site 112 (Site 11312)**

Toponym: Colle Falcone  
 Coordinates: X: 2333883, Y: 4595769  
 Location and method: the site is located on an isolated hill top on which two farms have been built; in the surrounding gardens a lot of material was observed, but only a fallow field (with low visibility) directly to the north could be walked systematically (units 8021-8023); a section separating the hill top from this field was also inspected  
 Samples: grab sample and three diagnostics samples (eleven catalogued fragments)  
 Finds 2003: tiles; bricks; coarse wares (ao Archaic fabric); dolium; amphora; depurated wares; terra sigillata; african red slip ware; glass; kiln debris  
 Finds Piccarreta: (in a section) various walls and a room with pavement (ao opus reticulatum); cappellaccio blocks; pieces of travertine; lumps of cocchiopesto; pieces of brick columns; remains of opus sectile pavement; pieces of white and grey marble; fragments of black and white mosaic; tiles (“sabbiate”); bricks; coarse wares; very large dolium; amphora; fine wares (“ceramica a pareti sottili”); black glazed; african red slip ware; kiln debris  
 Remarks: section contains in situ structures  
 Reference: Piccarreta, 1977: 89

*Tiles***1. AS'03 GS/P112/20**

Rim fragment of a tile

Coarse ware

Rectangular profile with flattened internal and external angle; concave lip

2.5YR 8/2 pale yellow to 10YR 7/6 yellow

6.8 × 9.8; Hrim 5.8; Wrim 4.7; Tplate 2.3

**2. AS'03 8022/01/1**

Rim fragment of a tile

Coarse ware

Rectangular profile with rounded external angle and flattened internal angle; lip slightly bevelled on the outside

Exterior 10YR 8/4 very pale brown; interior 10YR 8/4 very pale brown

8.3 × 9.4; Hrim 6.7; Wrim 3.4; Tplate 2.5

**3. AS'03 GS/P112/23**

Rim fragment of a tile

Coarse ware

Rectangular profile with faceted external angle and flattened internal angle

Exterior 7.5YR 7/6 reddish yellow

18.6 × 13.7; Hrim 5.9; Wrim 2.7; Tplate 2.5

*Large storage and transport vessels***4. AS'03 8023/01/4**

Rim fragment of a dolium

Coarse ware

Flaring wall, outcurving rim thickened on the outside and undercut; flattened lip

Exterior and interior 10YR 8/4 and 8/3 very pale brown

12.8 × 26.5; H 14.6; Hrim 6.1; Trim 10.9; D 69

*Coarse and depurated wares***5. AS'03 GS/P112/2**

Base fragment

Coarse ware

Flat base, inside flat; flaring wall

2.5YR 5/6 red

9.2 × 14.4; H 9.1; Tbase 1.2; Twall 0.6-0.9; Dbase 6

**6. AS'03 8017/01/2**

Rim fragment of a jar

Coarse ware

Straight rim thickened on the outside and slightly overhanging; pointed lip

2.5YR 6/6 light red

2.7 × 3.3; Twall 0.7; Trim 1.6; D ?

Not drawn

*Cf. Olcese olla type 3a, 2<sup>nd</sup> c BC - Augustan***7. AS'03 8022/01/3**

Rim fragment of a jar

Coarse ware

Straight rim thickened on the outside; convex lip

Exterior and interior 7.5YR 5/6 strong brown to 10YR 4/2 dark grayish brown; core 10YR 5/2 grayish brown and 10YR 6/3 pale brown

1.7 × 0.9; H 1.7; Twall 0.5; Trim 0.8; D 20

**8. AS'03 8022/01/2**

Rim fragment of a large bowl

Depurated ware

Straight rim thickened on the inside and outside and slightly undercut; convex lip

2.5YR 5/8 red

3.3 × 1.3; H 2.1; Hrim 1.8; Twall 0.45; Trim 1.2; D 40

*Fine wares***9. AS'03 8023/01/2**

Rim fragment of a bowl

Terra sigillata

Spreading wall, straight rim thickened on the outside with a horizontal groove; flattened lip

Slip 2.5YR 4/8 red; core 5YR 7/4 pink

1.9 × 2.4; H 1.8; Twall 0.3; Trim 0.6; D 18

**10. AS'03 8022/01/4**

Rim fragment of a bowl

African red slip ware

Straight rim thickened on the outside with a groove, concave on the inside; convex lip

Exterior 2.5YR 6/6 red and 2.5YR 5/3 weak red; interior and core 2.5YR 5/8 red

1.5 × 2.4; H 1.2; Hrim 0.9; Twall 0.4; Trim 0.7; D 16

**11. AS'03 8021/01/2**

Rim fragment of a lid

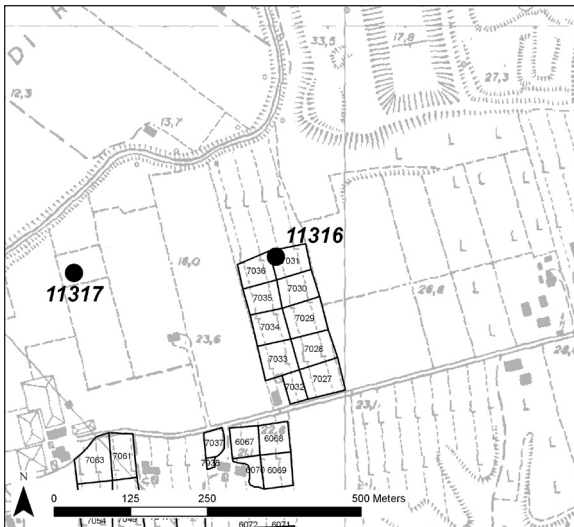
African red slip ware

Spreading wall, straight rim thickened on the outside; convex lip

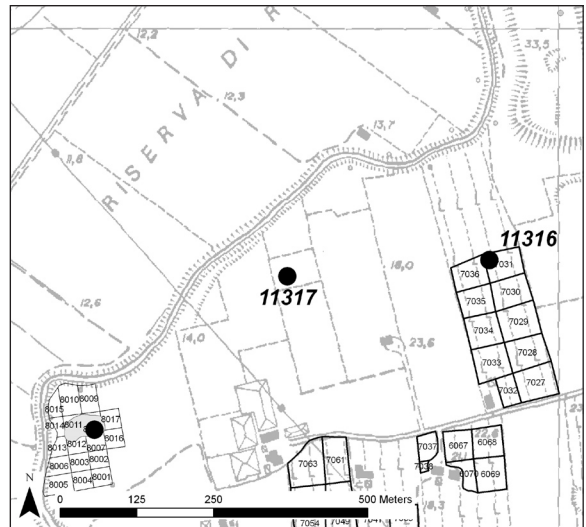
2.5YR 6/6 light red

2.4 × 2.5; H 1.6; Twall 0.5; Trim 0.8; D 20

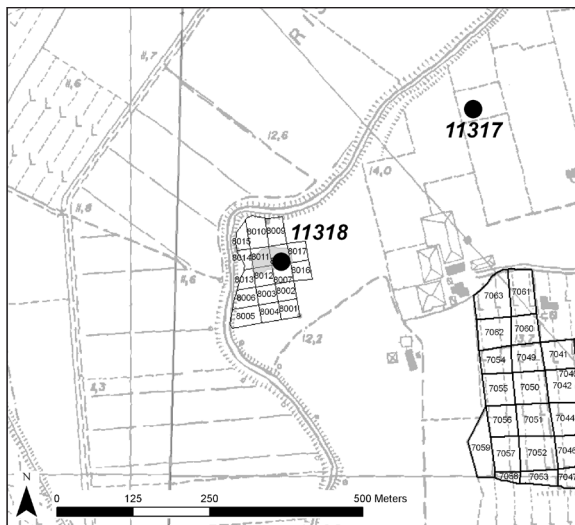
*Cf. Hayes (1972), Form 196; Mid 2<sup>nd</sup> – mid 3<sup>rd</sup> century AD*

**Piccarreta site 116 (Site 11316)**

Toponym:	Colle del Pero
Coordinates:	X: 2332924, Y: 4594792
Location and method:	the site is located in the southeast corner of a deep-ploughed field and the northeast corner of an adjacent vineyard, part of which were walked systematically during the revisits; the vineyard was subsequently covered during the block survey (slight concentration of material in unit 7030)
Samples:	diagnostic samples and standard sample (no fragments catalogued)
Finds 2003:	tiles (possibly <i>a.o.</i> Archaic fabric); coarse wares (ao Archaic fabric); depurated wares
Finds Piccarreta:	during construction of vineyard various walls and a pozzo; tiles (“sabbiate en non sabbiate”); bricks; coarse wares; amphora, <i>terra sigillata</i> ; african red slip ware
Remarks:	only a very slight scatter was left in an area of about 30 to 40 m <sup>2</sup> , also marked by a somewhat darker brownish soil; this scatter was located about 50 m southeast from the spot indicated by Piccarreta
Reference:	Piccarreta, 1977: 89

**Piccarreta site 117 (Site 11317)**

Toponym:	Colle del Pero
Coordinates:	X: 2332621, Y: 4594776
Location and method:	the site is located on a ridge in a melon field; only two paths through this field could be investigated; a ploughed field on the eastern slope was walked systematically
Samples:	grab sample (no catalogued fragments)
Finds 2003:	tiles; coarse wares
Finds Piccarreta:	tiles (“sabbiate e non sabbiate”); bricks; coarse wares; amphora
Remarks:	the site was located ca 100 m to the northwest from point indicated by Piccarreta
Reference:	Piccarreta, 1977: 89



### Piccarreta site 118 (Site 11318)

Toponym:	—
Coordinates:	X: 2332308, Y: 4594527
Location and method:	the site is located in a stubble field on the west side of an approximately east-west running ridge in a bend of the river Astura; although visibility was limited by the stubbles, the site could still be mapped rather precisely; at first a grid of 30 by 30 metre units (8001-8017) was walked systematically to find the extent of the site (indicated as a 5 sherds/m <sup>2</sup> contour line, grey area on the map); in a second stage we did a more intensive survey in blocks 8007, 8008, 8011 and 8012 to collect diagnostic pottery at 50% coverage
Samples:	grab sample and diagnostic samples (32 catalogued fragments)
Finds 2003:	impasto; tiles (ao Archaic fabric); coarse ware (ao Archaic fabric); dolium (ao Archaic fabric); amphora; black glazed; <i>terra sigillata</i> ; african red slip ware; tufa with iron inclusions, ore?
Finds Piccarreta:	tiles (“sabbiate e non sabbiate”); bricks; coarse wares; amphora
Remarks:	—
Reference:	Piccarreta, 1977: 89

#### Tiles

##### 1. AS’03 8008/02/2

Rim fragment of a tile  
Coarse ware  
Rectangular profile with rounded internal angle and flattened external angle; flattened lip  
Exterior and interior 7.5YR 8/4 pink; core 7.5YR 7/4 pink  
8.7 × 9.6; Hrim 5.7; Wrim 3.9; Tplate 2.4

#### Large storage and transport vessels

##### 2. AS’03 8008/02/6

Base fragment of a storage jar  
Archaic coarse ware  
Flat base, inside concave  
Exterior 7.5YR 5/6 strong brown; interior 5YR 6/6 reddish yellow to 7.5YR 6/6 reddish yellow; core 7.5YR 3/ very dark gray to 2.5YR 4/6 red  
10.2 × 10.1; H 7.1; Tbase 4.8; Twall 4.5; D ca 49

##### 3. AS’03 8011/02/3

Rim fragment of an amphora  
Coarse ware  
Straight rim thickened on the outside and concave on the inside; convex lip  
Exterior and interior 2.5YR 6/6 light red; core 7.5YR 5/2 brown  
2.9 × 6.9; H 4.6; Trim 1.9; D 18  
*Cf. Dressel 20/Africana 1 Amphora?: 1<sup>st</sup>-late – late 4<sup>th</sup> c AD?*

##### 4. AS’03 8009/01/1

Rim fragment of an amphora  
Coarse ware  
Straight rim thickened on the outside and undercut with a shallow horizontal groove just below the rim; convex lip  
Exterior 7.5YR 6/2 pinkish gray; interior 7.5YR 5/2 brown to 7.5YR 6/2 pinkish gray; Interior and exterior both have patches: 7.5YR 2.5/1 black; core 2.5YR 6/8 light red  
4.5 × 6.0; Twall 1.5; D 16  
Not drawn

##### 5. AS’03 GS/P118/3

Rim fragment of an amphora  
Depurated ware  
Straight rim thickened on the outside, concave on the inside; flattened lip  
Exterior and interior 7.5YR 7/6  
3.8 × 1.9; H 3.3; Trim 1.6; D 12

##### 6. AS’03 8008/02/1

Rim fragment of a large basin  
Coarse ware  
Straight rim slightly thickened on the inside, convex lip  
Exterior and interior 10YR 7/4 very pale brown  
4.8 × 13.0; H 10.1; Twall 3.1; Trim 4.0; D ca 60

##### 7. AS’03 8009/01/2

Base fragment of a storage jar  
Coarse ware  
Flat base, inside concave  
Exterior and interior 7.5YR 8/4 pink; core 5YR 6/6 reddish brown  
33.2 × 18.6; H 10.8; Tbase 3.8; Twall 2.5; D 16



*Coarse and depurated wares***8. AS\*03 8008/02/4**

Rim fragment of a jar

Coarse ware

Straight rim thickened on the outside; pointed lip

7.5YR 4/4 brown

1.7 × 5.4; H 3.7; Twall 0.35; Trim 1.5; D 30

*Cf. Olcese (2003), TAV.VIII, Olla type 3a: 2<sup>nd</sup> century BC - Augustean***9. AS\*03 8012/01/1**

Base fragment

Coarse ware

Flaring base ring with flattened edge and a ridge running along the edge; inside concave; flaring wall

Exterior and core 7.5YR 7/6 reddish yellow

3.5 × 5.6; H 4.2; Tbase 0.3; Tbase ring 1.9; Twall 0.6; Dbase 8

**10. AS\*03 8008/02/8**

Rim fragment of a bowl

Coarse ware

Straight rim, flattened lip

Exterior and core 5YR 4/3 reddish brown

1.9 × 0.8; H 1.8; Twall 0.6; Trim 0.7; D 22

**11. AS\*03 8008/01/2**

Knob of a lid

Coarse ware

Flaring wall, cylindrical thickened knob, flattened top with somewhat rounded edges

Exterior 5YR 5/6 yellowish red

4.2 × 6.2; H 4.2; Twall 0.75; D knob 3.5

**12. AS\*03 8007/02/1**

Rim fragment of a jar

Coarse ware

Outturning rim thickened on the outside and slightly overhanging; convex lip

5YR 6/8 reddish yellow

2.4 × 3.1; Twall 0.3; Trim 0.9; D 16

Not drawn

*Cf. Olcese (2003), olla type 3a, 2<sup>nd</sup> c BC - Augustan***13. AS\*03 8007/4/4**

Rim fragment of a jar

Coarse ware

Outturning rim thickened on the outside, concave on the inside; convex lip

Exterior and interior 5YR 5/8 yellowish red

3.2 × 1.8; H 2.2; Hrim 1.8; Twall 0.5; Trim 1.0; D 22

*Cf. Olcese (2003), TAV.VIII, Olla type 3a: 2<sup>nd</sup> century BC - Augustean***14. AS\*03 8011/01/2**

Base fragment

Coarse ware

Flat base with thickened edge, inside flat

Exterior and interior 7.5YR 6/6 reddish yellow

3.6 × 2.2; H 1.1; Tbase 0.4; Twall 0.2; Dbase 8

**15. AS\*03 8011/02/10**

Rim fragment of a jar

Coarse ware

Incurving rim thickened on the outside and undercut; convex lip

Exterior 5YR 5/8 yellowish red; interior 2.5YR 4/1 dark reddish grey; core 2.5Y 6/1 gray

2.9 × 1.5; H 2.1; Hrim 0.7; Twall 0.4; Trim 0.85; D 13

*Cf. possibly Olcese (2003), TAV.XII, Olla type 10: Augustean***16. AS\*03 8014/01/2**

Rim fragment of a jar

Coarse ware

Slightly outcurving rim thickened on the outside and concave on the inside; convex to pointed lip

Exterior 5YR 6/6 reddish yellow; interior 5YR 6/4 light reddish brown

4.3 × 1.5; H 3.0; Hrim 2.1; Twall 0.65; Trim 1.2; D 17

*Cf. Olcese (2003), TAV.VIII, Olla type 3a: 2<sup>nd</sup> century BC - Augustean**Fine wares***17. AS\*03 8008/01/1**

Rim fragment of a bowl

Black glazed

Slightly incurving rim thickened on the outside and undercut; lip bevelled on the inside

Exterior and interior 5YR 2.5/1 black

3.4 × 1.2; H 2.5; Hrim 2.1; Twall 0.4; Trim 0.7; D 26

**18. AS\*03 8011/02/1**

Base fragment

Depurated ware

Slightly flaring base ring with rounded edge; inside convex

Exterior 5YR 6/8 reddish yellow; interior 5YR 7/6 reddish yellow; core 5YR 6/8 reddish yellow to 5YR 6/6 reddish yellow

2.3 × 3.6; H 2.0; Tbase 0.3; Tbase ring 1.4; Twall 0.4; D 12

Probably worn black glazed

**19. AS\*03 8011/01/1**

Rim fragment of a bowl

Terra sigillata

Spreading wall, straight rim thickened on the outside and undercut; two shallow grooves on the inside; convex lip

Exterior and interior 10R 4/8

2.9 × 2.1; H 2.0; Hrim 0.4; Twall 0.4; Trim 0.5; D 20

*Cf. Ettlinger (1990), Form 8: Early Augustean - 0*

**20. AS\*03 GS/13/P118**

Rim fragment of a casserole

African red slip ware

Flaring wall, slightly incurving rim, convex lip

3.3 × 1.5; H 2.8; Twall 0.5; Trim 0.5; D 23

*Cf. Hayes (1972), Form 14A: Mid 2<sup>nd</sup> century AD***21. AS\*03 GS/P118/1**

Rim fragment of a bowl

African red slip ware

Straight rim slightly thickened on the outside with a band of rouletting and a ridge below; one groove on the inside; convex lip

Exterior and interior 2.5YR 6/8 light red

1.2 × 3.1; H 2.3; Twall 0.4; Trim 0.8; D 17

*Cf. Hayes (1972), Form 8A, 80/90-160+ AD***22. AS\*03 GS/4/P118**

Rim fragment of a casserole

African red slip ware

Flaring wall, straight rim thickened on the inside, convex lip

2.5YR 5/8 red

1.9 × 1.9; Twall 0.4; Trim 0.6; D 20

Not drawn

*Cf. Hayes (1972) Form 14A, mid 2<sup>nd</sup> c AD***23. AS\*03 8007/02/3**

Rim fragment of a casserole

African red slip ware

Flaring wall, straight rim thickened on the inside; pointed lip

Exterior 5YR 6/6; core 2.5YR 6/6 light red

0.8 × 2.2; H 2.2; Twall 0.5; Trim 0.7; D 37

*Cf. Hayes (1972), Form 23B: Mid 2<sup>nd</sup> – early 3<sup>rd</sup> century AD***24. AS\*03 8007/01/2**

Rim fragment of a casserole

African red slip ware

Straight rim thickened on the outside; convex lip

Exterior and interior 5YR 7/6 reddish yellow

0.9 × 3.5; H 1.7; Hrim 1.1; Twall 0.45; Trim 0.9; D 30

*Cf. Hayes (1972), Form 197: Late 2<sup>nd</sup> – mid 3<sup>rd</sup> century AD***25. AS\*03 8010/01/2**

Rim fragment of a bowl

African red slip ware

Flaring wall, straight rim with two grooves on the outside; convex lip

2.5YR 5/8 red

2.4 × 3.5; Twall 0.5; Trim 0.6; D 18

Not drawn

*Cf. Hayes (1972), Form 9B: 2<sup>nd</sup> half 2<sup>nd</sup> c AD***26. AS\*03 8007/02/2**

Rim fragment of a lid

African red slip ware

Flaring wall, straight rim thickened on the inside and outside; convex lip

Exterior and core 10R 6/6 light red; lip 2.5YR 6/2 pale red

2.7 × 2.2; Twall 0.5; Trim 0.8; D 22

Not drawn

*Cf. Hayes (1972), Form 196, mid 2<sup>nd</sup> – mid 3<sup>rd</sup> c AD***27. AS\*03 GS/P118/4**

Rim fragment

African red slip ware

Straight rim with rouletted decoration on the outside and one groove on the inside; pointed lip

10R 4/6 red

0.7 × 3.7; H 1.5; Twall 0.5; Trim 0.4; D 28

**28. AS\*03 8011/02/9**

Rim fragment of a bowl

African red slip ware

Straight rim thickened on the outside with two grooves and rouletted decoration in between; convex lip

10R 5/8 red

2.1 × 1.8; Twall 0.5; Trim 0.6 D ?

Not drawn

*Cf. Hayes (1972), Form 9A, 100-160+ AD***29. AS\*03 8011/02/2**

Rim fragment of a casserole

African red slip ware

Straight rim thickened on the outside; somewhat pointed lip

Exterior 5Y 4/1 dark gray; core 5YR 6/8 reddish yellow

5.2 × 1.0; H 2.5; Hrim 1.4; Twall 0.4; Trim 0.95; D 31

*Cf. Hayes (1972), Form 197: Late 2<sup>nd</sup> – mid 3<sup>rd</sup> century AD***30. AS\*03 8011/02/6**

Rim fragment of a bowl

African red slip ware

Slightly incurving rim thickened on the outside with two grooves with bands of rouletting; convex lip

5YR 7/6 reddish yellow

0.8 × 3.6; H 1.7; Twall 0.4; Trim 0.7; D 20

*Cf. Hayes (1972), Form 9A: 100 – 160+ AD***31. AS\*03 8011/02/7**

Rim fragment of a lid

African red slip ware

Flaring wall, straight rim thickened on the outside; convex lip

5YR 6/4 light reddish brown

3.1 × 2.5; H 2.6; Twall 0.6; Trim 1.0; D 30

*Cf. Hayes (1972), Form 196: Mid 2<sup>nd</sup> – mid 3<sup>rd</sup> century AD*

**32. AS'03 GS/P118/5**

Rim fragment of a casserole

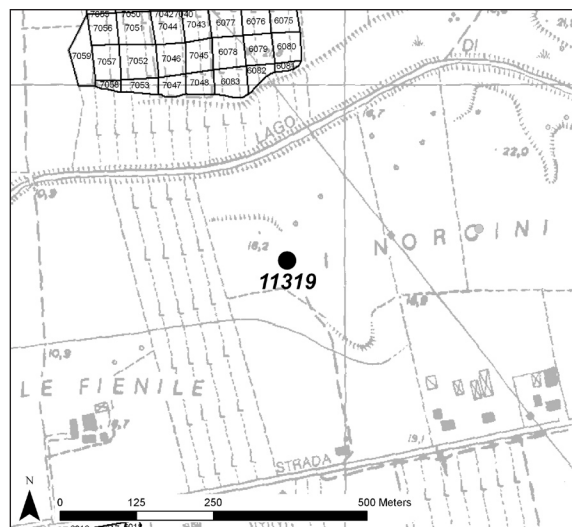
African red slip ware

Straight rim thickened on the outside with a groove on the inside;  
pointed and grooved lip

Exterior 5YR 5/1 grey; core 10R 6/8 light red

1.4 × 3.1; T wall 0.4; Trim 0.8; D 22

Not drawn

Cf. Hayes (1972), Form 197, late 2<sup>nd</sup> – mid 3<sup>rd</sup> c AD**Piccarreta site 119 (Site 11319)**

Toponym: I Norcini

Coordinates: X: 2332968, Y: 4593891

Location and method: The site is located south of the former lake of Sant'Antonio, that has been filled up with soil from the ridge on which the site was originally situated; the site has therefore largely been destroyed, but on the south side some material was observed in a stubble field with poor visibility conditions; this field was systematically walked

Samples: grab sample (four catalogued fragments)

Finds 2003: tiles; bricks (*a.o. opus spicatum?*); coarse wares; black glazed; area also contains much recent material

Finds Piccarreta: tiles ("sabbiate e non sabbiate"); bricks; coarse wares; amphora

Remarks: –

Reference: Piccarreta, 1977: 89

*Tiles***1. AS'03 P119/GS/3**

Complete brick

Hard depurated ware

Rectangular profile with flattened edges

Exterior and core 7.5YR 1/4 pink

5.8 × 9.5; T 2.8

Not drawn

**2. AS\*03 P119/GS/2**

Rim fragment of a tile

Hard depurated ware

Rectangular profile with rounded internal and external angle; flattened lip

10YR 8/4 very pale brown

11.0 × 5.4; Hrim 5.3; Wrim 2.4; Tplate 2.5

*Large storage and transport vessels***3. AS\*03 P119/GS/1**

Rim fragment of a large basin

Coarse ware (*chiaro sabbioso*)

Straight rim thickened on the inside and outside; flattened lip

Exterior and interior 2.5YR 8/3 pale yellow

16.3 × 7.3; H 17.4; Hrim 3.3; Twall 3.2; Trim 6.6; D ca 70

*Coarse and depurated wares***4. AS\*03 P119/4**

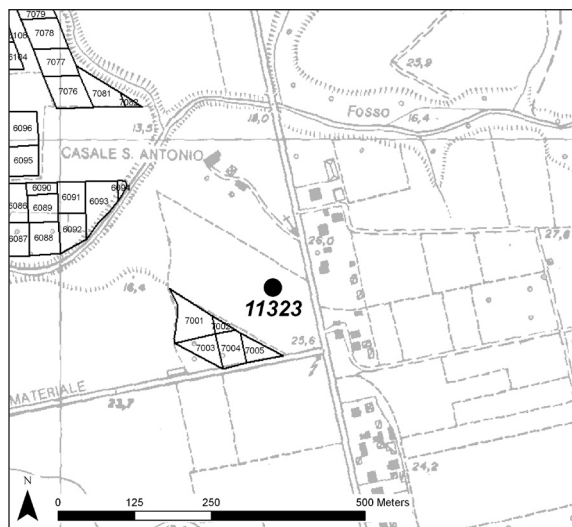
Rim fragment of a jar

Coarse ware

Flaring wall, straight rim thickened on the outside; pointed lip

Exterior 2.5YR 4/2 weak red; core 2.5YR 1/4 dark grey

5.9 × 1.6; H 4.7; Hrim 1.6; Twall 0.6; Trim 1.0

*Cf. Olcese (2003), TAV.VII, Olla type 2: 4<sup>th</sup> – 3<sup>rd</sup> century BC***Piccarreta site 123 (Site 11323)**

Toponym: –

Coordinates: X: 2334408, Y: 4593938

Location and method: the site is located in two fallow fields and is cut by the *Via Montefalcone*; both fields were walked systematically and the section cut by the road was inspected

Samples: grab samples (21 catalogued fragments)

Finds 2003: *grumo*; tiles (ao Archaic fabric); bricks; coarse wares (ao Archaic fabric); dolium (ao Archaic fabric); depurated wares; amphora; *terra sigillata*; african red slip ware; leucite-basalt grinding stone

Finds Piccarreta: tiles (“sabbiate e non sabbiate”); bricks; coarse wares; amphora; african red slip ware

Remarks: –

Reference: Piccarreta, 1977: 89

*Tiles***1. AS\*03 P123/GS3/5**

Rim fragment of a tile

Coarse ware

Rectangular profile with rounded internal and external angle; convex lip

2.5Y 8/2 pale yellow

6.5 × 5.4; Hrim 6.7; Wrim 3.5

**2. AS\*03 P123/GS3/3**

Plate fragment of a tile

Coarse ware

Flat plate bearing part of a rectangular stamp, reading [.DOMI.]

10YR 7/3 very pale brown

8.4 × 6.9; Tplate 3.2

**3. AS'03 P123/GS3/6**

Rim fragment of a tile  
Coarse ware  
Rectangular profile with slightly rounded internal angle, flattened external angle; concave lip  
7.5YR 7/6 reddish yellow  
10.6 × 15.6; Hrim 7.2; Wrim 4.0; Tplate 2.9

**4. AS'03 P123/GS4/1**

Almost complete brick  
Depurated ware  
Rectangular long brick with flat edges; broken along one of the short sides.  
5YR 5/6 yellowish red  
22.1 × 7.8; T 3.8  
Not drawn

*Large storage and transport vessels***5. AS'03 P123/GS2/1**

Rim fragment of a dolium  
Coarse ware  
Outturning rim slightly thickened on the outside; flattened lip  
Exterior and interior 7.5YR 6/6 reddish yellow  
10.9 × 8.6; H 9.9; Hrim 5.5; Twall 3.5; Trim 8.8; D 50

**6. AS'03 P123/GS1/1**

Rim fragment of a dolium  
Coarse ware  
Straight rim thickened on the outside; convex lip  
Exterior 2.5YR 5/8 red; interior 2.5Y 4/1 dark gray  
8.7 × 3.9; H 4.5; Hrim 3.2; Twall 1.7; Trim 3.3; D 48

**7. AS'03 P123/GS3/1**

Spike of an amphora  
Coarse ware  
Solid cylindrical spike, lower side flattened  
5YR 7/4 pink  
8.5 × 6.0; Dspike 3

**8. AS'03 123/GS2/6**

Rim fragment of an amphora  
Coarse ware  
Straight rim thickened on the outside and undercut; flattened lip  
Interior 5YR 7/4 pink; exterior and core 2.5YR 7/6 reddish yellow; inner core 2.5 6/6 light red  
9.7 × 3.1; H 8.4; Hrim 2.9; Twall 1.3-1.9; Trim 3.2; D 20  
*Cf. Dressel 1A amphora?: 130-end 1<sup>st</sup> c BC?*

**9. AS'03 P123/GS2/2**

Rim fragment of an amphora  
Depurated ware  
Straight rim thickened on the outside; convex lip  
Exterior 5YR 6/6 reddish yellow; Core 5YR 6/8 reddish yellow  
7.2 × 2.5; H 3.1; Hrim 2.5; Twall 0.7; Trim 2.3; D 13  
*Cf. Dressel 2-4?: late 1<sup>st</sup> c BC – 1<sup>st</sup> c AD*

*Coarse and depurated wares***10. AS'03 P123/GS4/8**

Rim fragment of a jar  
Coarse ware  
Straight rim thickened on the outside; convex lip  
Exterior 10R 5/8 red; interior and core 7.5YR 6/6 reddish yellow  
2.7 × 1.6; H 2.0; Twall 0.5; Trim 0.9; D 16  
*Cf. Olcese (2003), TAV.VII, Olla type 2: 4<sup>th</sup> – 3<sup>rd</sup> century BC*

**11. AS'03 P123/GS4/2**

Handle fragment  
Coarse ware  
Four-ribbed vertical band handle  
7.5YR 7/6 reddish yellow  
4.2 × 1.6; Shandle 0.65 × 1.1

**12. AS'03 P123/GS2/3**

Rim fragment of a bowl  
Coarse ware  
Spreading wall, straight rim, pointed lip  
Exterior and interior 2.5YR 6/8 light red  
3.9 × 2.3; H 2.7; Twall 0.45; Trim 0.55; D 23

**13. AS'03 P123/GS3/2**

Base fragment  
Coarse ware  
Flaring base ring with slightly thickened edge; inside concave  
Exterior and interior 2.5YR 6/8 light red  
3.5 × 1.9; H 1.8; Tbase ring 1.9; Twall 0.4; Dbase 9

**14. AS'03 P123/GS1/2**

Rim fragment of a shallow bowl  
Depurated ware  
Flaring wall, straight rim with agroove on the outside; pointed lip  
Exterior 10R 6/6 light red; interior 10R 5/6 red  
4.0 × 4.8; H 2.2; Twall 0.7; Trim 0.7; D 19

*Fine wares***15. AS'03 P123/GS4/4**

Rim fragment  
Terra Sigillata  
Spreading wall, straight rim thickened on the outside with rouletting and three grooves on the inside; convex lip  
Exterior and interior 2.5YR 4/8 red; core 2.5YR 6/6 light red  
4.0 × 1.1; H 1.8; Twall 0.3; Trim 0.5; D 20

**16. AS\*03 P123/GS3/4**

Base fragment

Terra Sigillata

Flaring base ring with rounded edge; interior flat and decorated with two concentric grooves with a band of rouletting in between; two horizontal ridges on the outside of the wall

Slip 2.5YR 4/8 red; core 2.5YR 6/6 light red

5.0 × 6.4; H 2.2; Tbase 0.9; Tbase ring 2.2; Twall 1.2; D 19

**17. AS\*03 P123/GS4/6**

Rim fragment of a lid

African red slip ware

Spreading wall, straight rim thickened on the outside; flattened lip

Exterior 10YR 6/4 light yellowish brown; interior 10YR 7/3 very pale brown

4.4 × 3.0; H 2.5; Twall 0.4; Trim 0.6; D 18

*Cf. Hayes (1972), Form 196: Mid 2<sup>nd</sup> – mid 3<sup>rd</sup> century AD***18. AS\*03 P123/GS4/3**

Rim fragment of a bowl

African red slip ware

Outturning and overhanging rim; convex lip

Exterior 2.5YR 6/8 light red to 2.5YR 5/8 red; interior 2.5YR 6/8 light red; core 2.5YR 6/8 light red

1.7 × 4.1; H 1.0; Trim 0.65; D 17

*Cf. Hayes (1972), Form 3C: Early – mid 2<sup>nd</sup> century AD***19. AS\*03 P123/GS2/4**

Base fragment

African red slip ware

Flaring base ring with rounded edge; inside concave

Exterior and interior 10R 6/8 light red; traces of slip 10R 4/8 red

4.4 × 3.3; H 1.7; T base ring 1.3; Twall 0.65; Dbase 5

**20. AS\*03 P123/GS4/5**

Base fragment

African red slip ware?

Solid foot with thickened edge, inside concave; flaring wall

Exterior 7.5YR 4/2 dark brown; interior 2.5YR 6/8 light red

4.4 × 3.4; H 1.5; Tbase 0.2; Twall 0.45; Dbase 4

**21. AS\*03 P123/GS4/9**

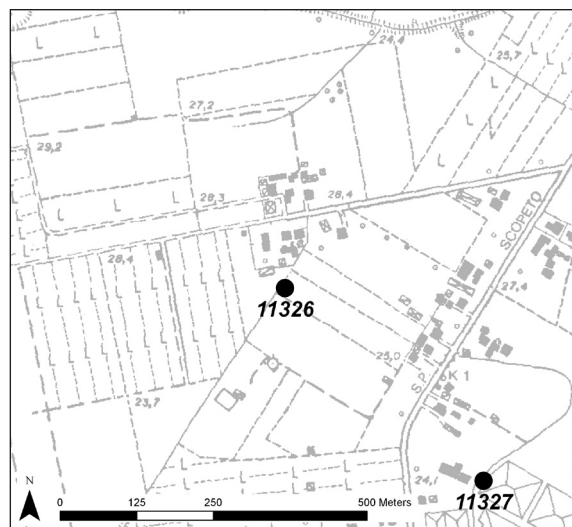
Rim fragment of a bowl

African red slip ware

Straight rim thickened on the outside with several bands of rouletting; convex lip

Exterior 2.5YR 6/8 light red; interior 2.5YR 6/8 light red

2.4 × 1.0; H 2.5; Trim 0.75; D 20

*Cf. Hayes (1972), Form 8A: 80/90 – 160+ AD***Piccarreta site 126 (Site 11326)**

Toponym: –

Coordinates: X: 2335595, Y: 4593695

Location and method: site is located in a corn field, of which we could only visit the edge; in an adjacent olive orchard, however some material was observed

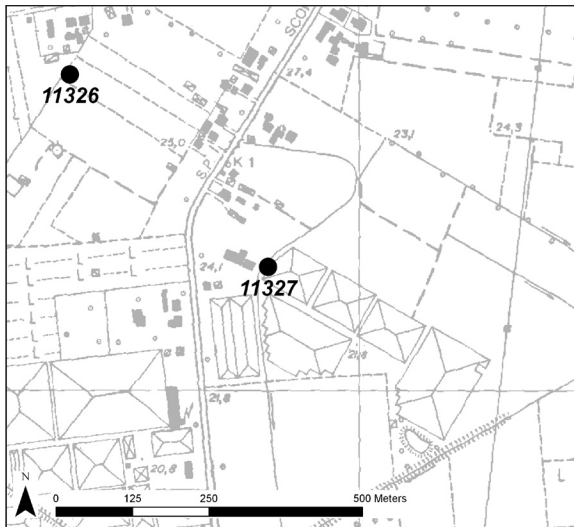
Samples: grab sample (no catalogued fragments)

Finds 2003: tiles (*a.o.* Archaic fabric); coarse wares (*a.o.* Archaic fabric); dolium (*a.o.* Archaic fabric); amphora

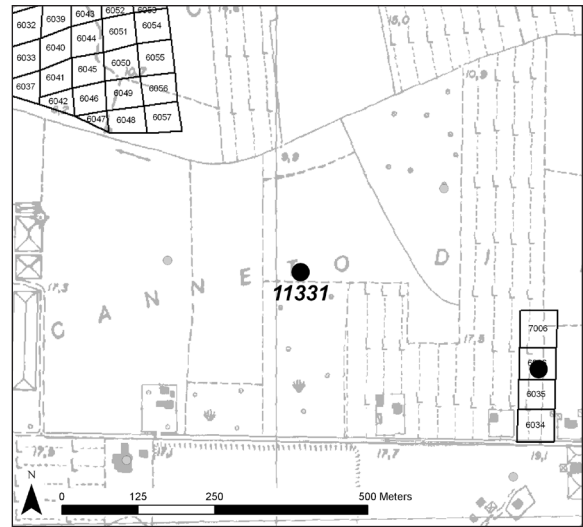
Finds Piccarreta: pottery (“non sabbiate”)

Remarks: –

Reference: Piccarreta, 1977: 89

**Piccarreta site 127 (Site 11327)**

Toponym:	—
Coordinates:	X: 2335918, Y: 4593382
Location and method:	the site is located in a freshly ploughed olive orchard that was systematically walked
Samples:	grab sample (no catalogued fragments)
Finds 2003:	tiles; coarse wares (ao Archaic fabric); amphora; black glazed
Finds Piccarreta:	tiles (“sabbiate”); coarse wares
Remarks:	the site consists of a scatter of about 20 by 20 meters
Reference:	Piccarreta, 1977: 89

**Piccarreta site 131 (Site 11331)**

Toponym:	Canneto di Rodi
Coordinates:	X: 2333102, Y: 4592688
Location and method:	the site is located on the north side of a low hill crest in an unploughed, overgrown plot; a lot of material was still visible between the plants and six blocks of 30 × 30 m were walked systematically (units 3026-3031; unfortunately not measured in with GPS and not indicated on the map)
Samples:	grab samples and diagnostic samples (18 catalogued fragments)
Finds 2003:	burnt tuff; tiles; coarse wares ( <i>a.o.</i> Archaic fabric); amphora; depurated wares; black glazed; african red slip ware
Finds Piccarreta:	tiles (“sabbiate e non sabbiate”); bricks; coarse wares; amphora
Remarks:	—
Reference:	Piccarreta, 1977: 89

*Tiles***1. AS’03 GS/P131/1A**

Rim fragment of a tile

Depurated ware

Rectangular profile with flattened internal and external angle; flattened lip

Exterior and core 10YR 7/4 and 10YR 8/3 very pale brown

13.3 × 14.1; Hrim 6.4; Wrim 4.4; Tplate 2.5

*Large storage and transport vessels***2. AS'03 GS/P131/4A**

Handle fragment of an amphora

Coarse ware

Vertical double bar handle

Exterior and core 5YR 6/8 reddish yellow

4.5 × 6.4; Shandle 4.4 × 2.4

*Cf. Haltern 70 amphora?: mid 1<sup>st</sup> BC - mid 1<sup>st</sup> AD***3. AS'03 GS/P131/3**

Rim fragment of an amphora

Coarse ware

Straight rim thickened on the outside with a groove below the lip;

convex lip

Exterior and core 5YR 7/6 and 6/6 reddish yellow

5.6 × 2.4; H 2.9; Trim 2.4; D 15

*Cf. Africana II amphora?: late 2<sup>nd</sup> - late 4<sup>th</sup> c AD***4. AS'03 GS/P131/1**

Handle fragment of an amphora

Coarse ware

Vertical ring handle irregular in section (attached to neck)

Exterior and core 2.5YR 6/6 light red

9.9 × 5.3; Shandle 3.0 × 2.7

*Coarse and depurated wares***5. AS'03 8031/01/2**Rim fragment of a *pentola*

Coarse ware

Slightly incurving wall with a ridge on the inside; outturning rim,  
lip damagedExterior 5YR 5/6 yellowish red; core 10YR 7/6 very pale brown to  
5YR 5/6 yellowish red

9.7 × 3.1; H 4.1; Hrim 0.8; Twall 0.7; Trim 0.85; D 21

*Cf. Olcese (2003), TAV.III, Pentola type 3a : 1<sup>st</sup> century AD – 1<sup>st</sup>  
quarter 2<sup>nd</sup> century AD***6. AS'03 8027/01/4**

Rim fragment of a jar

Coarse ware

Slightly outcurving rim thickened on the outside and concave on  
the inside, convex lipExterior 5YR 5/8 yellowish red; core 5YR 5/8 yellowish red and  
5YR 4/1 dark grey

2.5 × 1.1; H 2.0; Twall 0.3; Trim 0.5; D 14

*Cf. Olcese (2003), TAV.VIII, Olla type 3b: Late Republican***7. AS'03 8031/01/10**

Rim fragment

Coarse ware

Flaring wall with a ridge below the rim on the outside; outcurving  
rim thickened on the outside and slightly overhanging; convex lip

Exterior and core 7.5YR 6/6 reddish yellow

3.7 × 1.2; H 2.9; Hrim 0.5; Twall 0.4; Tridge 0.7; Trim 0.5; D 25

**8. AS'03 GS/P131/2**

Handle fragment

Coarse ware

Vertical band handle with raised edges and one groove on the out-  
side; two slight grooves on the inside

Exterior 5YR 5/1 grey; Core 5YR 5/1 grey

4.0 × 2.8; Shandle 2.8 × 1.1

**9. AS'03 GS/P131/3A**

Rim fragment of a large bowl

Coarse ware

Flaring wall, straight rim thickened on the outside with a groove;  
convex lip

Exterior and core 5YR 7/6 reddish yellow

1.7 × 5.3; H 4.6; Twall 0.8; Trim 1.4; D 28

**10. AS'03 8028/01/2**

Rim fragment of a jar

Coarse ware

Slightly outturning rim with internal angle rim, thickened on the  
outside, concave on the inside; convex lip

Exterior 5YR 6/6 reddish yellow; core 2.5YR 6/8 light red

5.7 × 1.6; H 3.5; Hrim 2.4; Twall 0.55; Trim 1.35; D 27

*Cf. Olcese (2003), TAV.VIII, Olla type 3a: 2<sup>nd</sup> century BC –  
Augustean***11. AS'03 8031/01/12**Rim fragment of a *pentola*

Coarse ware

Flaring wall, outturning rim; flattened lip

Exterior 7.5YR 7/3 pink; interior 7.5YR 7/6 reddish yellow; core  
7.5YR 6/3 light brown

3.3 × 2.2; H 1.3; Hrim 0.65; Twall 0.5; Trim 0.7; D 16

*Cf. Olcese (2003), TAV.IV, Pentola type 4: 1<sup>st</sup> century AD – mid 2<sup>nd</sup>  
century AD***12. AS'03 8031/01/7**

Rim fragment of a bowl or plate

Coarse ware

Outturning rim with internal angle; convex lip

2.5YR 6/6 light red

3.2 × 1.3; H 1.0; Hrim 0.45; Twall 0.4; Trim 0.45; D ?

**13. AS'03 8028/01/1**

Handle fragment

Depurated ware

Vertical band handle with raised edges ("crescent moon-shaped"  
in section)

2.5Y 8/2 pale yellow

8.6 × 2.9; Shandle 2.7 × 2.3



*Fine wares***14. AS'03 GS/ P131/2A**

Rim fragment of a lid

African red slip ware

Flaring wall, straight rim thickened on the outside; convex lip

Exterior and interior 2.5YR 6/8 light red

2.8 × 2.2; H 1.4; Twall 0.5; Trim 0.8; D 25

*Cf. Hayes (1972), Form 196: Mid 2<sup>nd</sup> – mid 3<sup>rd</sup> century AD***15. AS'03 8031/01/6**

Rim fragment of a bowl

African red slip ware

Spreading wall, straight rim thickened on the outside with bands of rouletting and a small ridge underneath the thickening; two grooves on the inside; convex lip

Exterior and interior 2.5YR 6/6 light red; core 2.5YR 6/6 light red

3.9 × 1.5; H 2.2; Twall 0.35; Trim 0.9; D 19

*Cf. Hayes (1972), Form 8A: 80/90 - 160+ AD***16. AS'03 8031/01/11**

Rim fragment of a bowl or lid

African red slip ware

Flaring wall, straight rim thickened on the outside; pointed lip

5YR 6/6 reddish yellow

3.1 × 2.0; H 1.4; Twall 0.5; Trim 0.8; D 28

*Cf. Hayes (1972), Form 196: Mid 2<sup>nd</sup> – mid 3<sup>rd</sup> century AD***17. AS'03 8028/01/4**

Rim fragment

African red slip ware

Outturning rim thickened on the outside; convex lip

Exterior and interior 10YR 5/2 grayish brown; core 2.5YR 6/8 light red

2.2 × 2.0; H 1.3; Hrim 0.8; Twall 0.5; Trim 0.8; D 13

**18. AS'03 P131/4**

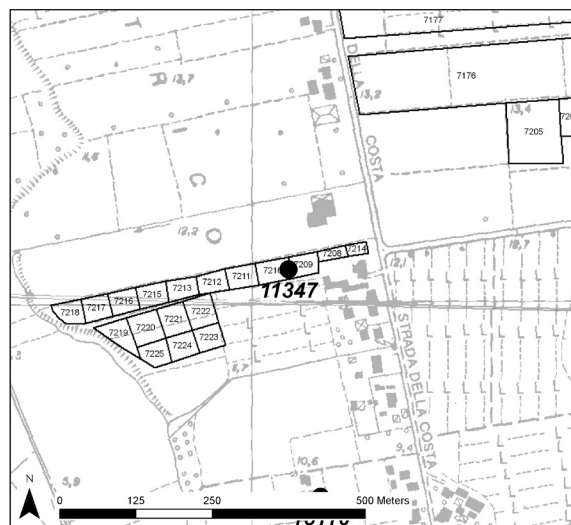
Rim fragment of a casserole

African red slip ware

Flaring wall, straight rim thickened on the outside; convex, grooved lip

Exterior 2.5YR 6/8 light red; core 2.5YR 5/8 red

3.3 × 0.9; H 1.8; Hrim 0.9; Twall 0.3; Trim 0.8; D 20

*Cf. Hayes (1972), Form 197: Late 2<sup>nd</sup> – mid 3<sup>rd</sup> century AD***Piccarreta site 147 (Site 11347)**

Toponym: –

Coordinates: X: 2334099, Y: 4591226

Location and method: the site is located in a vineyard with medium visibility conditions that was surveyed systematically during the block survey (units 7208-7210)

Samples: standard samples (one catalogued fragment)

Finds 2003: tiles; coarse wares (ao Archaic fabric); dolium; amphora; depurated wares; black glazed; possibly *terra sigillata*  
Finds Piccarreta: tiles; bricks; coarse wares; amphora; black glazed; *terra sigillata*

Remarks: –

Reference: Piccarreta, 1977: 90

*Fine wares***1. AS'03 2209/01/1**

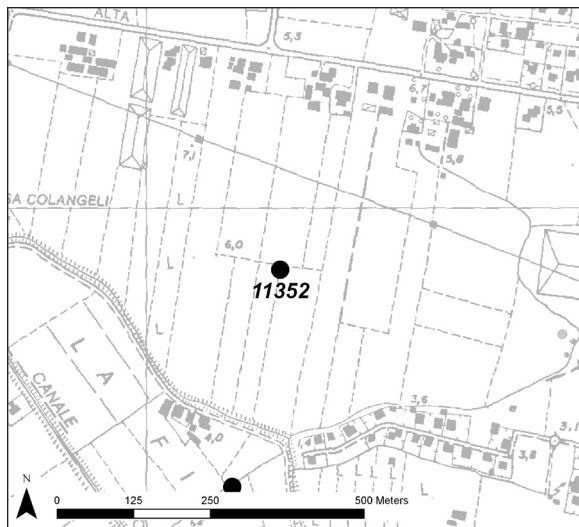
Rim fragment of a bowl

Black glazed

Flaring wall, slightly incurving rim; convex lip

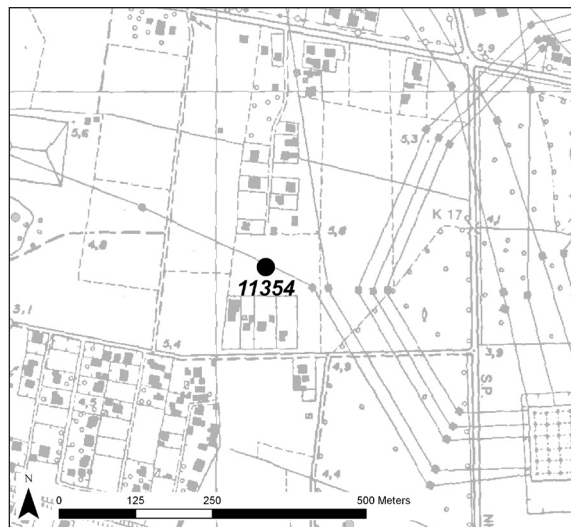
Glaze 7.5YR N3/ very dark grey; core 7.5YR 7/4 pink

2.9 × 1.2; H 1.9; Twall 0.4; Trim 0.4; D 14



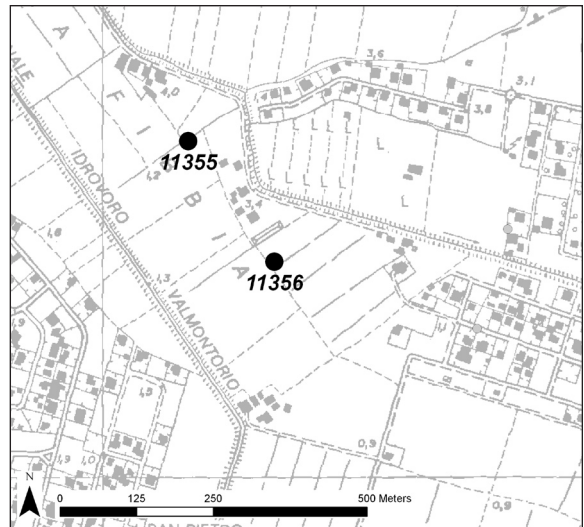
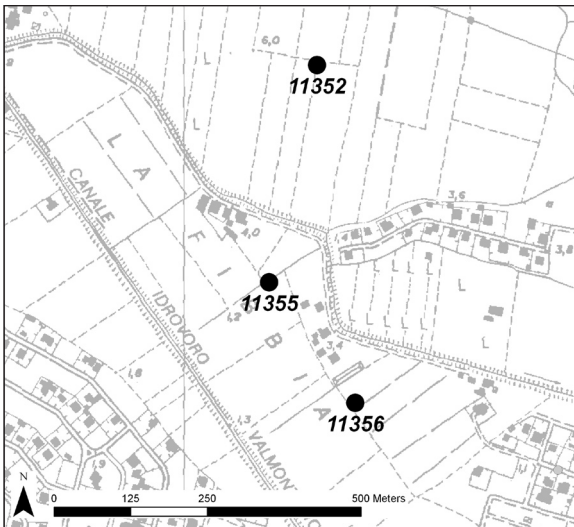
#### Piccarreta site 152 (Site 11352)

Toponym: —  
 Coordinates: X: 2335280, Y: 4589079  
 Location and method: the site is located in an inaccessible corn field; the edge of this field as well as a path through it were explored  
 Samples: grab sample (no catalogued fragments)  
 Finds 2003: *impasto*; tiles; coarse wares  
 Finds Piccarreta: tiles (“sabbiate”); bricks; coarse wares; black glazed  
 Remarks: —  
 Reference: Piccarreta, 1977: 90



#### Piccarreta site 154 (Site 11354)

Toponym: —  
 Coordinates: X: 2336146, Y: 4588893  
 Location and method: the site is located in fallow land with poor visibility conditions; the area was walked systematically  
 Samples: grab sample (no fragments catalogued)  
 Finds 2003: *impasto*; tiles; coarse wares; amphora; black glazed; pumice  
 Finds Piccarreta: *impasto*; tiles (“sabbiate”); bricks; coarse wares  
 Remarks: *impasto* was observed throughout the field, to the west also some Republican material  
 Reference: Piccarreta, 1977: 90

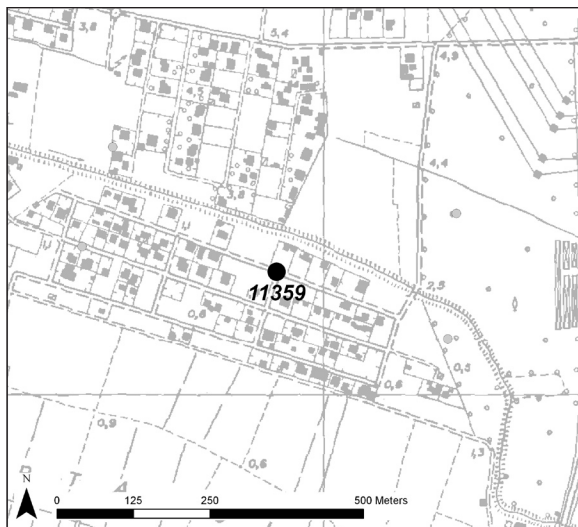


**Piccarreta site 155 (Site 11355)**

Toponym: —  
 Coordinates: X: 2335202, Y: 4588726  
 Location and method: the site is located in a small football field with very poor visibility conditions; the field was walked systematically and molehills were examined  
 Samples: grab sample (no catalogued fragments)  
 Finds 2003: *impasto* (ao *impasto rosso*)  
 Finds Piccarreta: *impasto*  
 Remarks: —  
 Reference: Piccarreta, 1977: 90

**Piccarreta site 156 (Site 11356)**

Toponym: La Fibbia  
 Coordinates: X: 2335342, Y: 4588530  
 Location and method: the site is located in a in completely overgrown area; despite very poor visibility conditions the area was walked systematically  
 Samples: grab sample (no catalogued fragments)  
 Finds 2003: *impasto* (Archaic fabric)  
 Finds Piccarreta: *impasto*  
 Remarks: —  
 Reference: Piccarreta, 1977: 90



### Piccarreta site 159 (Site 11359)

Toponym:	Cannucceto
Coordinates:	X: 2335989, Y: 4588380
Location and method:	the site has been overbuilt, but some soil that had been displaced could be examined
Samples:	grab sample (two catalogued fragments)
Finds 2003:	tiles; coarse wares (ao Archaic fabric); amphora; <i>terra sigillata</i> ; african red slip ware
Finds Piccarreta:	tiles ("sabbiate"); bricks; coarse wares; amphora; <i>terra sigillata</i> (arretine and from south-Gaul)
Remarks:	—
Reference:	Piccarreta, 1977: 90

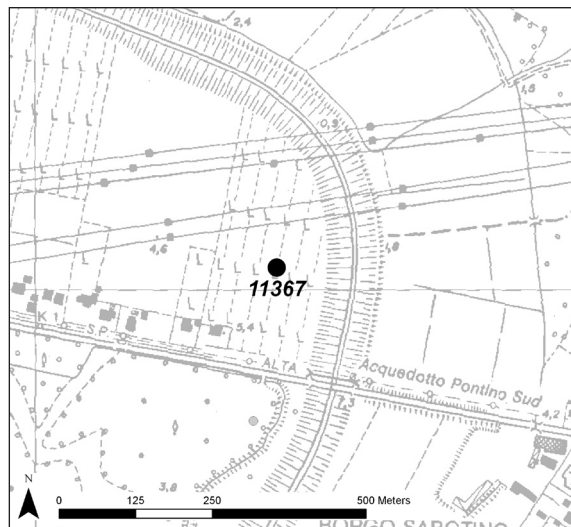
#### Coarse and depurated wares

##### 1. AS'03 P159/GS/2

Rim fragment  
Coarse ware  
Outcurving rim slightly thickened on the outside; convex lip  
Exterior 2.5YR 6/8 light red; core 2.5YR 5/8 red  
1.5 × 2.8; H 2.0; Twall 0.3; Trim 0.6; D14

##### 2. AS'03 P159/GS/1

Rim fragment  
Depurated ware  
Slightly incurving rim thickened on the outside; flattened lip  
Exterior and core 2.5YR 6/6 light red  
2.6 × 1.8; H 2.1; Twall 0.6; Trim 1.1; D ca 10



### Piccarreta site 167 (Site 11367)

Toponym:	—
Coordinates:	X: 2337456, Y: 4589215
Location and method:	the site is located in an inaccessible corn field; the edge of the field and several paths through it were checked
Samples:	grab sample (two catalogued fragments)
Finds 2003:	<i>impasto</i> ; tiles; coarse wares; dolium; amphora; <i>terra sigillata</i>
Finds Piccarreta:	<i>impasto</i> ; tiles ("sabbiate"); bricks; coarse wares; dolium; amphora; black glazed
Remarks:	—
Reference:	Piccarreta, 1977: 90–91

#### Tiles

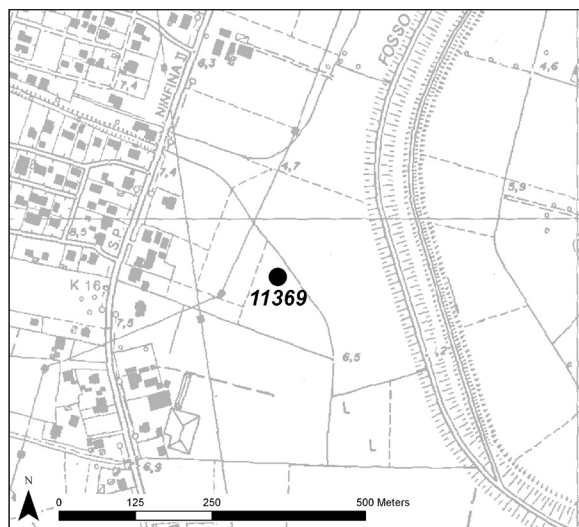
##### 1. AS'03 P167/GS/1

Rim fragment of a tile  
Coarse ware  
Triangular profile with flattened internal and external angle  
7.5YR 7/6 reddish yellow  
9.2 × 8.3; Hrim 6.0; Wrim 4.4; Tplate 3.0

#### Coarse and depurated wares

##### 2. AS'03 P167/GS/3

Rim fragment  
Depurated ware  
Flaring wall two grooves and an encircling cord on the neck; slightly incurving rim; convex lip  
Exterior and core 10R 4/8 red; core 2.5YR 7/6 light red  
3.3 × 2.9; H 1.8; Hrim 0.9; Twall 0.55; Trim 0.5; D 12  
Possibly eroded *terra sigillata*

**Piccarreta site 169 (Site 11369)**

Toponym:	—
Coordinates:	X: 2336574, Y: 4590085
Location and method:	the site is located in an inaccessible corn field; the edge of this field was explored, while an adjacent fallow field with medium visibility conditions was walked systematically
Samples:	grab sample (two catalogued fragments)
Finds 2003:	<i>impasto</i> ; <i>bucchero</i> ; tiles; coarse wares; leucite-basalt grinding stone
Finds Piccarreta:	tiles (“sabbiate”); bricks; coarse wares; amphora
Remarks:	if Piccarreta’s coordinates are correct, the protohistoric site is located further west than Roman site; in the area with protohistoric material not much Roman material was observed
Reference:	Piccarreta, 1977: 90–91

*Bucchero***1. AS\*03 P169/GS/2**Base fragment of a *kylix*

Bucchero

Flaring base ring with tapering edge

Gley 1/2.5 black

3.3 × 2.7; H 1.8; Tbase ring 0.4-0.8; D 7.5

*Coarse and depurated wares***2. AS\*03 P169/GS/1**

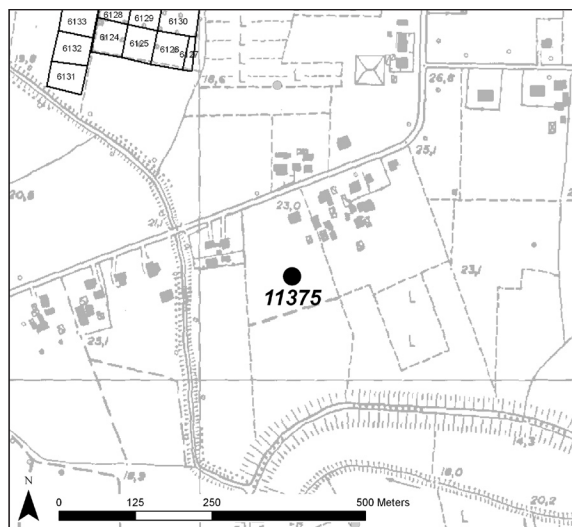
Rim fragment of a bowl

Coarse ware

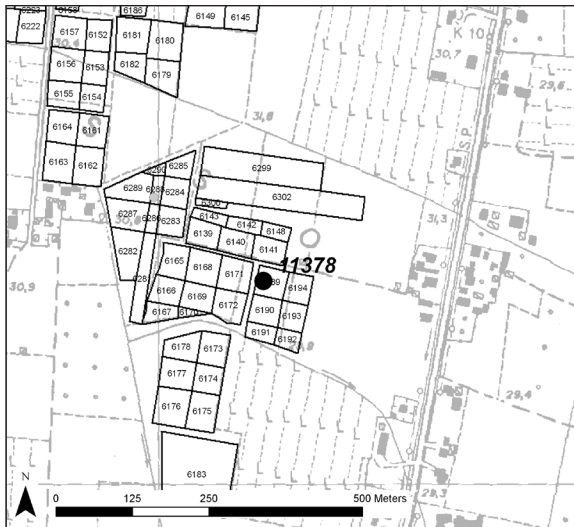
Straight rim, flattened lip

Exterior 10YR 4/2 dark grayish brown; core 10YR 4/1 dark gray

1.9 × 0.9; H 1.1; Trim 0.8; D ca 25

**Piccarreta site 175 (Site 11375)**

Toponym:	—
Coordinates:	X: 2338213, Y: 4594348
Location and method:	located in a densely overgrown field; the edge of this field was explored, as well as a strip of an adjacent stubble field
Samples:	grab sample (no fragments catalogued)
Finds 2003:	tiles ( <i>a.o.</i> Archaic fabric); coarse wares ( <i>a.o.</i> Archaic fabric)
Finds Piccarreta:	tiles (“sabbiate”); bricks; coarse wares
Remarks:	the site is located about 100 south from the point indicated by Piccarreta
Reference:	Piccarreta, 1977: 90–91



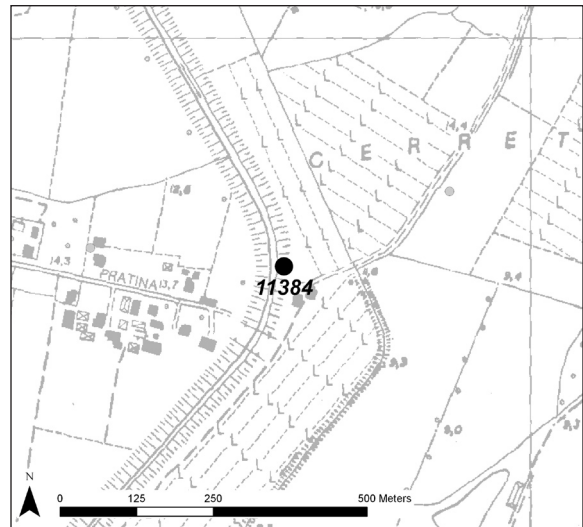
#### Piccarreta site 178 (Site 11378)

Toponym: —  
 Coordinates: X: 2337234, Y: 4595511  
 Location and method: the site is located in a vineyard that was walked systematically; later on, the field was surveyed during the block survey under poor visibility conditions (units 6189/6190, 6194)  
 Samples: grab sample and standard samples (one catalogued fragment)  
 Finds 2003: tiles; coarse wares; amphora  
 Finds Piccarreta: tiles (“sabbiate”); bricks  
 Remarks: only a low density scatter was found  
 Reference: Piccarreta, 1977: 91

#### Large storage and transport vessels

##### 1. AS\*03 P178/GS/1

Rim fragment of an amphora  
 Coarse ware  
 Straight rim thickened on the outside; pointed lip  
 Exterior 10YR 6/4 pale brown to 7.5YR 7/4 pink; core 5YR 6/4 light reddish brown  
 5.0 × 2.5; H 4.3; Twall 0.55; Trim 2.2; D 16  
*Cf. Dressel 1A/B?: 130-end 1<sup>st</sup> c BC?*



#### Piccarreta site 184 (Site 11384)

Toponym: —  
 Coordinates: X: 2337662, Y: 4591810  
 Location and method: the site is located next to the *Fosso Moscarello* and was probably partly destroyed during the canalization of this stream; an adjacent field with bushes was walked systematically; soil in this field with sherds may originate from the stream  
 Samples: grab sample (five catalogued fragments)  
 Finds 2003: tiles; coarse wares (*a.o.* Archaic fabric); amphora; african red slip ware  
 Finds Piccarreta: tiles (“sabbiate”); bricks; coarse wares; *terra sigillata*; african red slip ware  
 Remarks: —  
 Reference: Piccarreta, 1977: 91

#### Large storage and transport vessels

##### 1. AS\*03 P184/GS/4

Rim fragment of an amphora  
 Coarse ware  
 Outcurving rim thickened on the outside; convex lip  
 Exterior and core 2.5YR 6/4 light reddish brown  
 2.1 × 4.2; H 4.3; Hrim 2.4; Twall 1.5; Trim 1.8; D 13

#### Coarse and depurated wares

##### 2. AS\*03 P184/GS/5

Rim fragment of a large bowl  
 Coarse ware  
 Flaring wall, slightly incurving rim thickened on the outside and concave on the inside; flattened lip  
 Exterior 2.5Y 8/3 pale yellow; core 2.5Y 8/3 pale yellow to 10YR 4/2 dark grayish brown  
 34.4 × 3.2; H 3.3; Twall 0.5; Trim 1.9; D 27

**3. AS'03 P184/GS/1**

Knob of a lid

Coarse ware

Cylindrical, slightly thickened knob, upside flattened

Exterior and core 2.5YR 9/8 red

H 2.3; Twall 0.6; Dknob 1.9

**4. AS'03 P184/GS/3**

Rim fragment

Coarse ware

Outcurving rim thickened on the outside; flattened lip

Exterior 2.5YR 5/8 red; core 5YR 5/4 reddish brown

3.8 × 1.9; H 2.3; Twall 0.7; Trim 1.3; D 32

*Fine wares***5. AS'03 P184/GS/2**

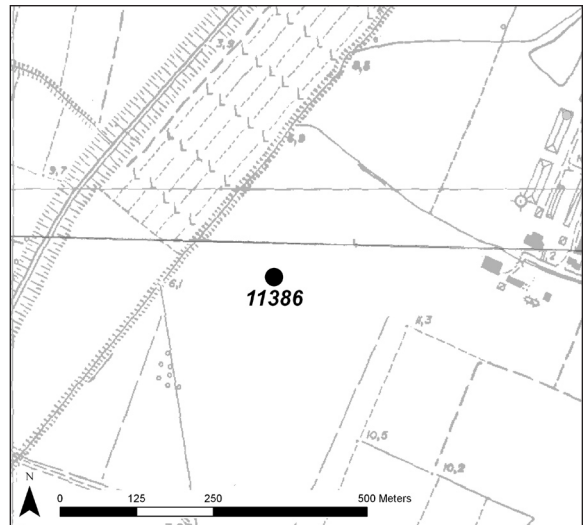
Rim fragment of a bowl

African red slip ware

Flaring wall, straight rim, convex to pointed lip; outside of rim and lip are blackened

Exterior and interior 2.5YR 4/8 red; blackening: 10YR 3/1 very dark grey; core 5YR 6/6 reddish yellow

2.4 × 1.8; H 1.9; Twall 0.4; Trim 0.3

*Cf. Hayes (1972), Form 27: 160 – 220 AD***Piccarreta site 186 (Site 11386)**

Toponym: –

Coordinates: X: 2337488, Y: 4591039

Location and method: the site is located on a slightly elevated ridge in a stubble field with poor visibility conditions; the field was walked systematically

Samples: grab sample (one catalogued fragment)

Finds 2003: tiles; coarse wares (*a.o.* Archaic fabric)

Finds Piccarreta: tiles (“sabbiate”); bricks; coarse wares

Remarks: material was observed in an area of about 60 × 40 m

Reference: Piccarreta, 1977: 91

*Coarse and depurated wares***1. AS'03 P186/GS/1**

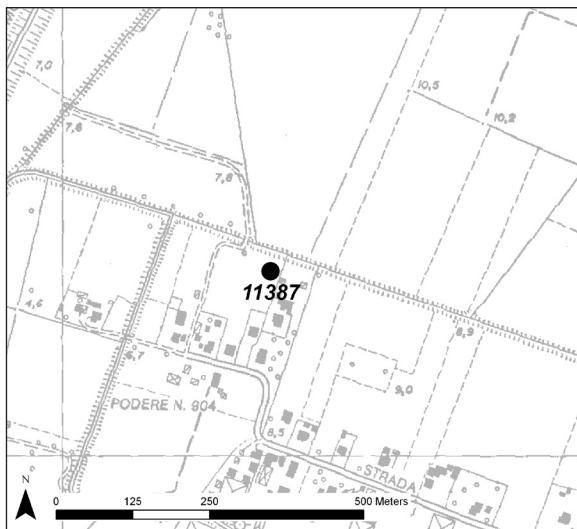
Rim fragment of a bowl

Coarse ware

Slightly flaring wall, straight rim slightly thickened on the outside; flattened lip

Exterior 7.5YR 4/3 brown; core 7.5YR 2.5/1 black

2.7 × 1.0; H 1.7; Twall 0.8; Trim 0.9; D ?



#### Piccarreta site 187 (Site 11387)

Toponym:	—
Coordinates:	X: 2337400, Y: 4590480
Location and method:	the site is located in a fallow field bordered to the north by a small fosso; the field was surveyed systematically
Samples:	grab sample (two catalogued fragments)
Finds 2003:	tiles; coarse wares (ao Archaic fabric); amphora; black glazed; leucite-basalt grinding stone; tuff with iron inclusions, ore?
Finds Piccarreta:	tiles (“sabbiate”); coarse wares
Remarks:	the land owner reported that during digging a <i>pozzo</i> lined with tuff blocks was found in association with Roman ceramics
Reference:	Piccarreta, 1977: 91

#### Coarse and depurated wares

##### 1. AS\*03 P187/GS/3

Rim fragment of a jar

Coarse ware

Straight rim thickened on the outside; convex lip

Exterior 2.5YR 5/6 red; core 7.5YR 5/4 brown

2.2 × 1.2; H 2.3; Twall 0.4; Trim 1.1; D ca 13

*Cf. Olcese (2003), TAV.VIII, Olla type 3a: 2<sup>nd</sup> century BC – Augustean*

##### 2. AS\*03 P187/GS/2

Rim and wall fragment of a jar

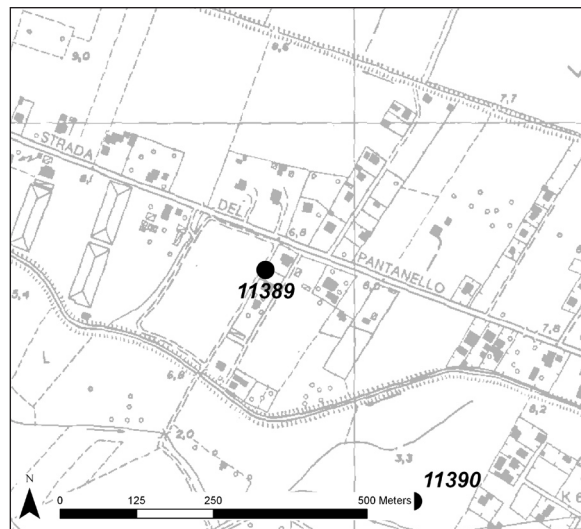
Coarse ware

Straight rim thickened on the outside and slightly concave on the inside; convex lip

Exterior 5YR 4/2 dark reddish gray; core 10R 5/6 red

3.8 × 1.0; H 1.7; Hrim 1.3; Twall 0.3; Trim 0.5; D 13

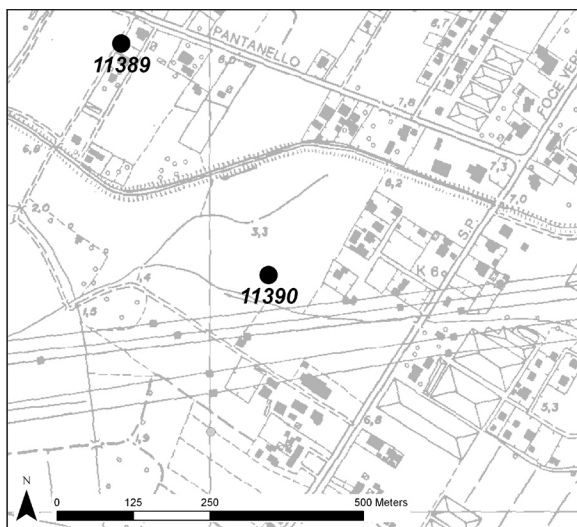
*Cf. Olcese (2003), TAV.VIII, Olla type 3b: Late-Republican*



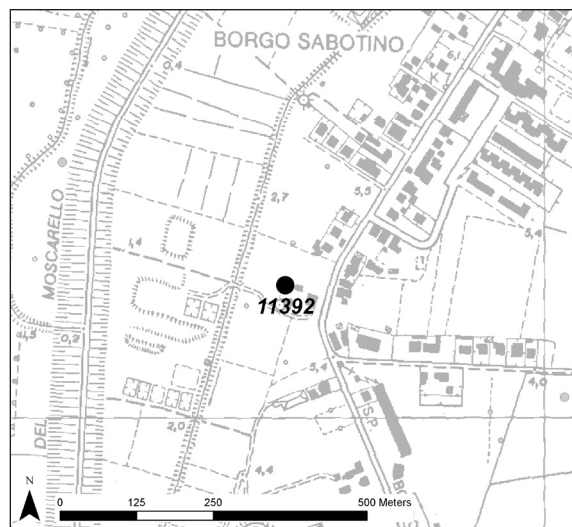
#### Piccarreta site 189 (Site 11389)

Toponym:	—
Coordinates:	X: 2337917, Y: 4589941
Location and method:	the site has been overbuilt, but a fallow strip of land behind the house could be walked systematically
Samples:	grab sample (no catalogued fragments)
Finds 2003:	tiles ( <i>a.o.</i> Archaic fabric); coarse wares (ao Archaic fabric)
Finds Piccarreta:	tiles (“sabbiate”); coarse wares
Remarks:	—
Reference:	Piccarreta, 1977: 91



**Piccarreta site 190 (Site 11390)**

Toponym:	—
Coordinates:	X: 2338157, Y: 4589565
Location and method:	the site is partly located in fallow land, partly in a corn field, both with very poor visibility conditions; the fallow land was walked systematically and the edge of the corn field was explored
Samples:	grab sample (no catalogued fragments)
Finds 2003:	tiles; coarse wares; african red slip ware (ao Hayes form 9)
Finds Piccarreta:	tiles (“sabbiate”); coarse wares
Remarks:	—
Reference:	Piccarreta, 1977: 91

**Piccarreta site 192 (Site 11392)**

Toponym:	—
Coordinates:	X: 2337641, Y: 4588396
Location and method:	the site is located on a ridge, has partly been overbuilt and is partly located in an adjacent stubble field with low visibility conditions; the stubble field was walked systematically
Samples:	grab sample (one catalogued fragment)
Finds 2003:	<i>impasto</i> ; tiles (ao Post-Roman); coarse wares; amphora
Finds Piccarreta:	tiles (“sabbiate”); bricks; coarse wares
Remarks:	—
Reference:	Piccarreta, 1977: 91

*Large storage and transport vessels***1. AS'03 P192/GS/1**

Handle fragment of an amphora

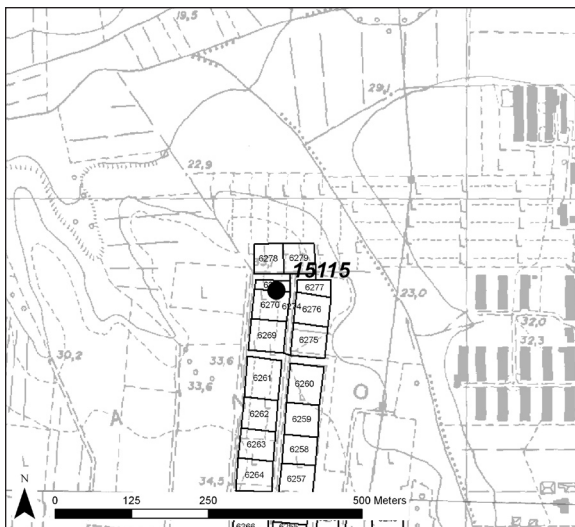
Coarse ware

Vertical ribbed band handle

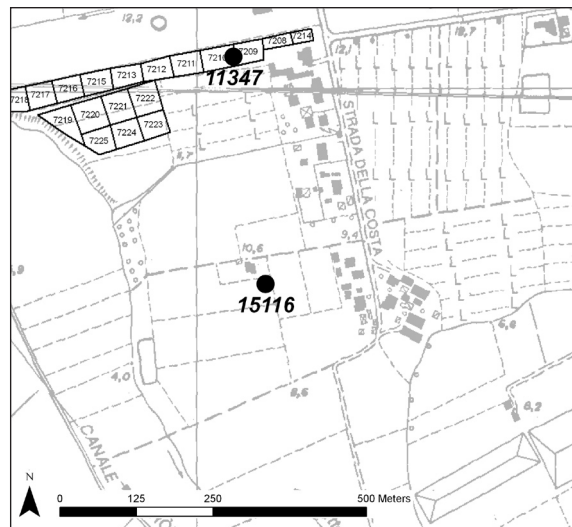
Exterior and core 5YR 6/8 reddish yellow

9.0 × 4.7; Shandle 4.7 × 3.0

*Cf. Haltern 70 amphora?: mid 1<sup>st</sup> BC - mid 1<sup>st</sup> AD*

**Site 15115**

Toponym: Castelverde  
 Coordinates: X: 2335756, Y: 4597030  
 Location and method: site is located in a vineyard with medium visibility conditions; the area was surveyed systematically during the block survey (units 6269-6271, 6273-6279)  
 Samples: grab sample, standard samples and total samples (no catalogued finds)  
 Finds 2003: *grumo*; tiles (ao Archaic fabric); coarse wares (ao Archaic fabric); depurated wares  
 Remarks: finds in general very worn and no diagnostics left; site seems to be completely ploughed out  
 Reference: –

**Site 15116**

Toponym: –  
 Coordinates: X: 2334176, Y: 4590863  
 Location and method: the site was pointed out to us by local people during the Piccarreta revisits and is located in a recently ploughed field with good visibility conditions and the edge of an adjacent fruit orchard; the area was walked systematically  
 Samples: grab sample (22 fragments catalogued)  
 Finds 2003: tiles; coarse wares; amphora; depurated wares; black glazed; *terra sigillata*; african red slip ware  
 Remarks: soil is darker gray in the site area, the soil in the surroundings is more reddish; the site is often visited by amateurs with metal detectors and may be a small necropolis  
 Reference: –

*Large storage and transport vessels***1. AS'03 T3NS2/GS/7**

Spike of an amphora  
 Coarse ware  
 Cylindrical, solid spike; lower side convex  
 Exterior and core 7.5YR 6/6 reddish yellow  
 7.5 × 4.5; H 6.9; D spike 6

**2. AS'03 T3NS2/GS/1**

Rim fragment of an amphora  
 Coarse ware  
 Slightly flaring wall, 2-stepped rim thickened on the inside with a horizontal groove; convex lip  
 Exterior and core 2.5Y 8/2 pale yellow  
 2.7 × 10.5; H 4.1; T wall 0.8; Trim 2.5; D 10  
*Cf. Tripolitana amphora?: 1<sup>st</sup> - 4<sup>th</sup> c AD?*

*Coarse and depurated wares***3. AS\*03 T3NS2/GS/15**

Rim fragment of a lid

Coarse ware

Flaring wall, slightly upturned rim, convex lip

Exterior and core 2.5Y 5/1 gray

6.6 × 4.3; H 3.0; Twall 0.4-0.7; Trim 1.4; D 17.5

*Cf. Olcese (2003), TAV XLIX, Coperchio type 3: 1<sup>st</sup> – 2<sup>nd</sup> century AD***4. AS\*03 T3NS2/GS/3**

Rim fragment of a jar

Coarse ware

Straight rim thickened on the outside; convex to pointed lip

Exterior 2.5YR 6/8 light red to 2.5YR 5/2 weak red; interior 2.5YR

6/8 light red; core 2.5YR 7/8 light red

1.4 × 4.9; H 3.6; Hrim 1.2; Twall 0.6; Trim 1.3; D 16

**5. AS\*03 T3NS2/GS/2**

Rim fragment

Depurated ware

Outcurving rim thickened on the inside and outside; flattened lip

2.5Y 8/3 pale yellow

2.4 × 5.9; H 2.8; Twall 0.45; Trim 1.2; D 15

**6. AS\*03 T3NS2/GS/5**

Rim fragment of a bowl

Coarse ware

Flaring wall, straight rim thickened on the outside; convex lip

Exterior and core 2.5YR 6/8 light red

5.0 × 3.2; H 3.8; Hrim 1.3; Twall 0.6; Trim 1.7; D 30

**7. AS\*03 T3NS2/GS/55**

Rim fragment of a bowl

Coarse ware

Flaring wall, straight rim thickened on the outside and slightly undercut; convex lip

5.1 × 3.2; H 3.9; Hrim 1.0; Twall 0.45; Trim 1.7; D ca 43

**8. AS\*03 T3NS2/GS/6**

Base fragment

Depurated ware

Raised flat base with thickened edge and several oblique grooves and a ridge on the outside above the base

Exterior 5YR 5/6 yellowish red to 2.5YR 4/1 dark reddish grey; core 5YR 7/8 reddish yellow to 5YR 5/2 reddish grey

2.2 × 4.3; H 1.8; Tbase 0.2 – 1.0; Twall 0.3; Dbase 4

*Fine wares***9. AS\*03 T3NS2/GS/19**

Decorated wall fragment

Terra Sigillata

Straight wall fragment with encircling ridge with round incisions; below ridge spiral and leaf motives

Slip 10R 4/8 red; core 2.5YR 6/6 light red

2.5 × 2.9; Twall 0.5

**10. AS\*03 T3NS2/GS/12**

Rim fragment of a bowl or plate

Terra Sigillata

Spreading wall, straight rim with a groove on the inside; convex lip

Exterior and interior 2.5YR 4/8 red; core 5YR 6/4 light reddish brown.

2.8 × 0.8; H 1.8; Twall 0.5; Trim 0.6; D ?

**11. AS\*03 T3NS2/GS/10**

Decorated wall fragment

Terra Sigillata

Straight wall with horizontal rows of leaf-shaped decoration and oblique notches

Exterior and interior 2.5YR 4/8 red; core 2.5YR 7/6 light red

2.5 × 2.1; Twall 0.5

**12. AS\*03 T3NS2/GS/25**

Rim fragment of a lid

African red slip ware

Flaring wall, straight rim slightly thickened on the inside; flattened lip

10R 5/8 red

1.9 × 2.2; H 3.4; Twall 0.45; Trim 0.65; D ?

*Cf. Hayes (1972), Form 196: Mid 2<sup>nd</sup> – mid 3<sup>rd</sup> century AD***13. AS\*03 T3NS2/GS/23**

Rim fragment of a bowl

African red slip ware

Outcurving and overhanging rim, convex lip

Exterior and interior 2.5YR 5/6 red; core 10R 6/8 light red

1.7 × 2.1; H 1.2; Trim 0.65; D 16.5

*Cf. Hayes (1972), Form 3C: Early – mid 2<sup>nd</sup> century AD***14. AS\*03 T3NS2/GS/9**

Rim fragment of a casserole

African red slip ware

Straight rim thickened on the inside; lip bevelled on the inside

Exterior 5YR 5/1 grey red; core 2.5YR 6/6 light red

2.4 × 1.0; H 1.6; Twall 0.45; Trim 0.6; D 25

*Cf. Hayes (1972), Form 23B: Mid 2<sup>nd</sup>-early 3<sup>rd</sup> century AD*

**15. AS\*03 T3NS2/GS/15A**

Rim fragment of a casserole

African red slip ware

Straight rim thickened on the inside; convex lip

Exterior 5YR 5/8 red; interior 10R 5/8 red and 10R 6/8 light red

3.1 × 1.2; H 1.9; Twall 0.45; Trim 0.6; D 22

*Cf. Hayes (1972), Form 23B: Mid 2<sup>nd</sup>-early 3<sup>rd</sup> century AD***16. AS\*03 T3NS2/GS/22**

Rim fragment of a lid

African red slip ware

Straight rim thickened on the outside, convex lip; outside of rim and lip are somewhat blackened

Exterior and core 2.5YR 6/6 light red; blackening: 5YR 6/2 pinkish grey

2.2 × 2.0; H 1.0; Twall 0.4; Trim 0.55; D 17

*Cf. Hayes (1972), Form 196: mid 2<sup>nd</sup> - mid 3<sup>rd</sup> c AD***17. AS\*03 T3NS2/GS/20**

Rim fragment of a bowl

African red slip ware

Straight rim, convex to pointed lip

Exterior and core 10R 5/8 red

1.8 × 1.4; H 1.6; Trim 0.4; D 24

*Cf. Hayes (1972), Form 50B: 350 – 400+ AD***18. AS\*03 T3NS2/GS/24**

Rim fragment of a bowl

African red slip ware

Straight rim, convex lip

Exterior 2.5YR 5/6 red; core 2.5YR 5/8 red

3.3 × 1.4; H 1.9; T 0.4; D 36

*Cf. Hayes (1972), Form 50A: 300 – 360 AD***19. AS\*03 T3NS2/GS/18**

Rim fragment of a bowl

African red slip ware

Outcurving, overhanging rim; convex lip

2.5 YR 6/8 light red

1.0 × 2.4; H 1.4; Hrim 0.9; Twall 0.7; Trim 0.65; D 26

*Cf. Hayes (1972), Form 3C: Early – mid 2<sup>nd</sup> century AD**Glass***20. AS\*03 T3NS2/GS/26**

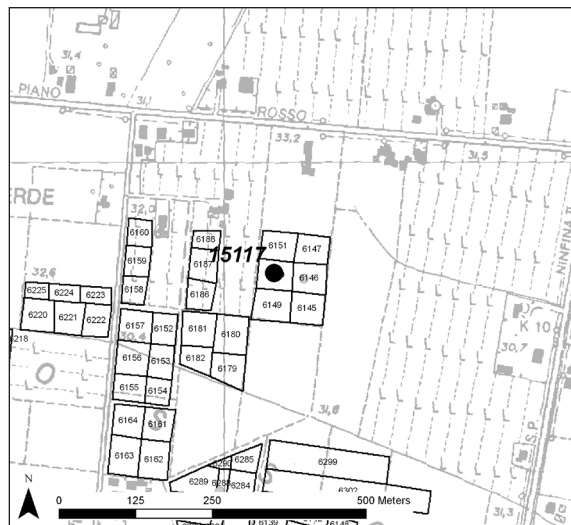
Rim fragment

Glass

Outturning rim, convex lip

5BG 7/2 pale blue green

1.8 × 1.4; H 1.3; Twall 0.3; Trim 0.4; D 13

**Site 15117**

Toponym: Piano Rosso

Coordinates: X: 2337144, Y: 4596001

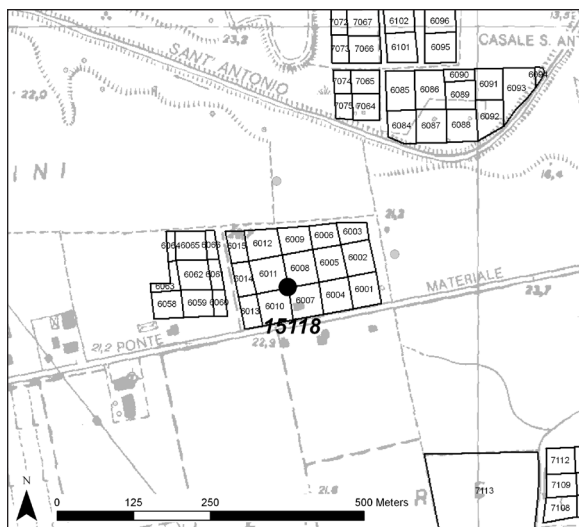
Location and method: the site is located in a vineyard with good visibility conditions; the area was surveyed during the block survey (units 6146/61547, 6150/6151)

Samples: standard samples (no catalogued fragments)

Finds 2003: tiles; coarse wares; amphora; depurated wares

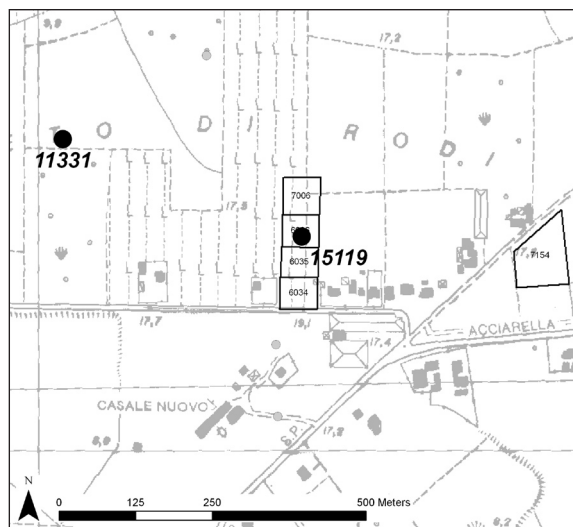
Remarks: relatively many lithics in the area, but site status for Roman period unclear

Reference: –



**Site 15118**

Toponym: –  
 Coordinates: X: 2333753, Y: 4593755  
 Location and method: the site is located in a vineyard with medium visibility conditions; the area was surveyed during the block survey (units 6007/6008, 6010/6011)  
 Samples: standard samples (no catalogued fragments)  
 Finds 2003: *impasto*; pieces of tuff; tiles; coarse wares; dolium (Archaic fabric); amphora; depurated wares; black glazed; african red slip ware  
 Remarks: –  
 Reference: –



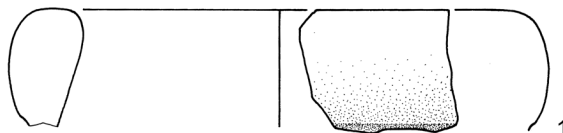
**Site 15119**

Toponym: –  
 Coordinates: X: 2333491, Y: 4592530  
 Location and method: the site is located in a vineyard with medium visibility conditions; the area was surveyed during the block survey (units 6035/6036)  
 Samples: standard samples (no catalogued fragments)  
 Finds 2003: tiles; coarse wares; depurated wares; black glazed  
 Remarks: –  
 Reference: –

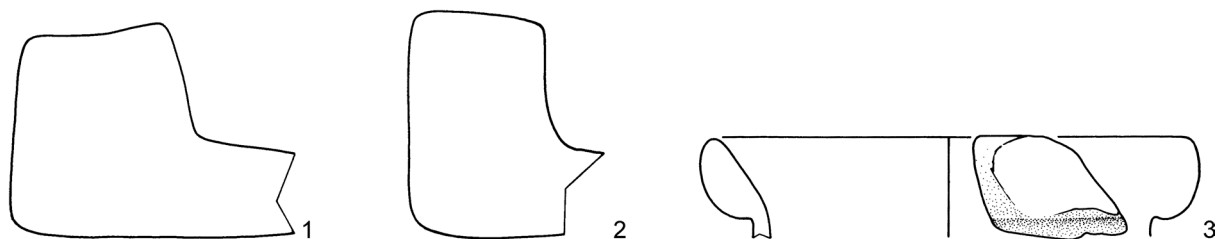
**Site 11270**



**Site 11276**



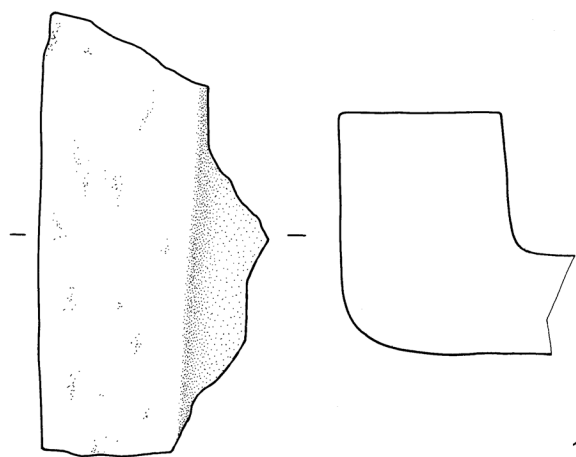
**Site 11280**



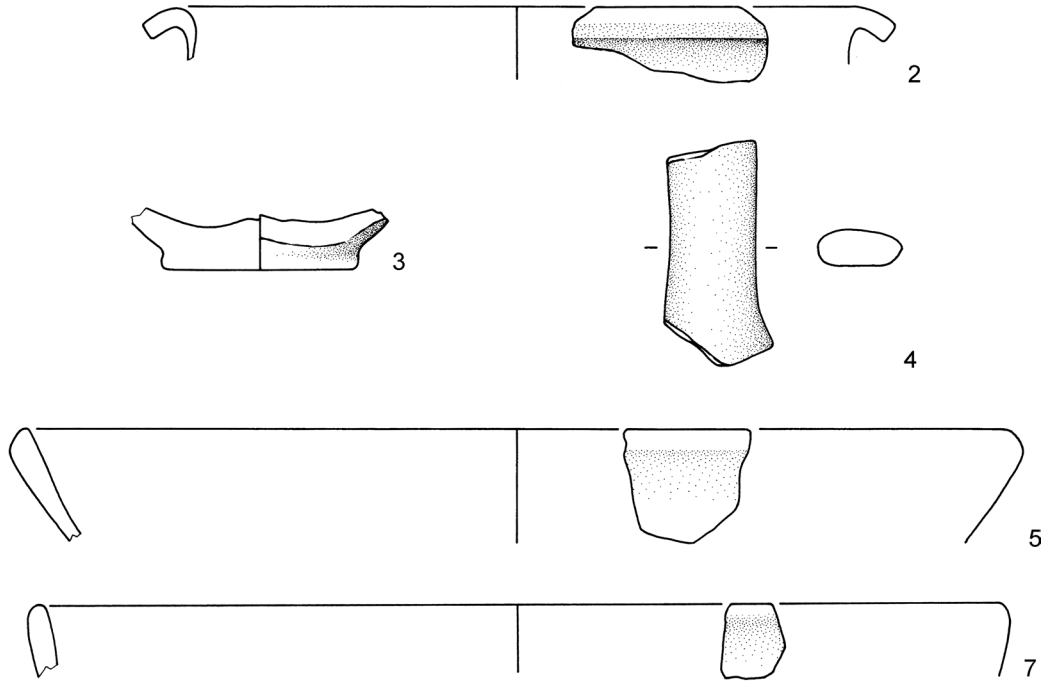
**Site 11284**



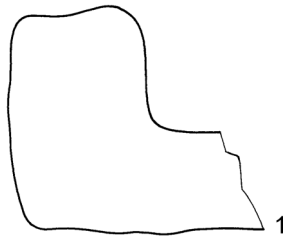
**Site 11287**



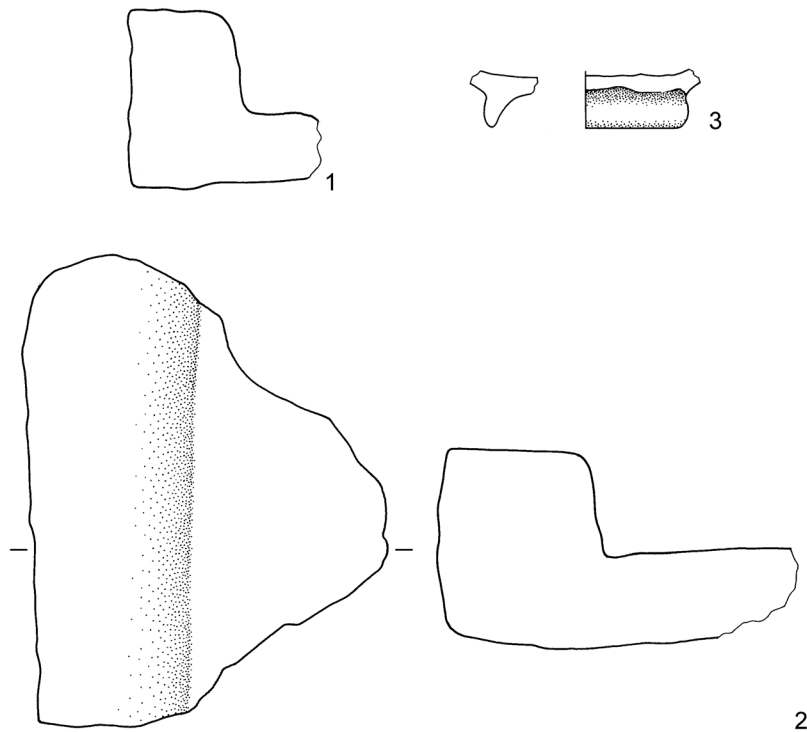
**Site 11294**



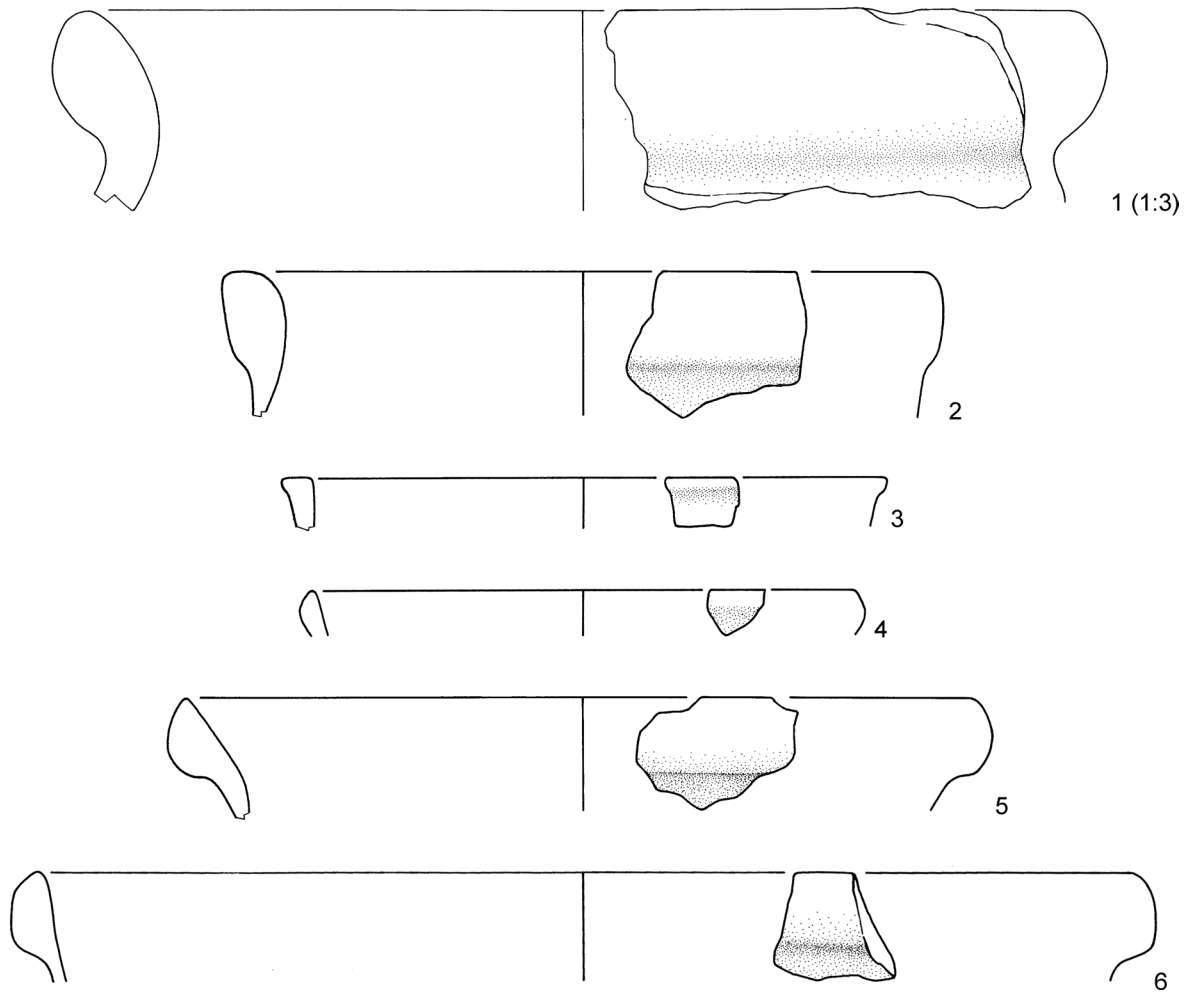
**Site 11296**



**Site 11298**

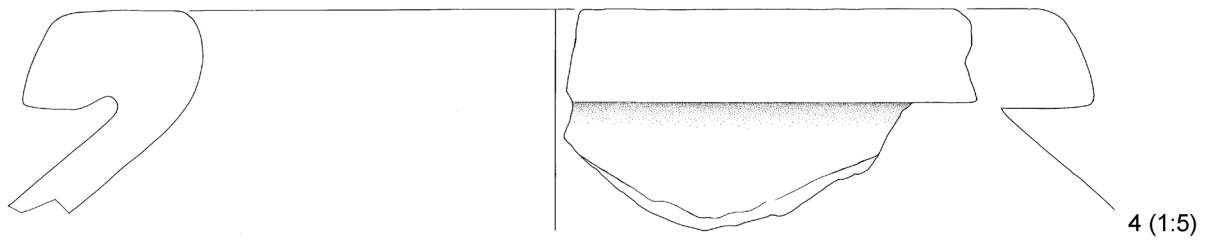
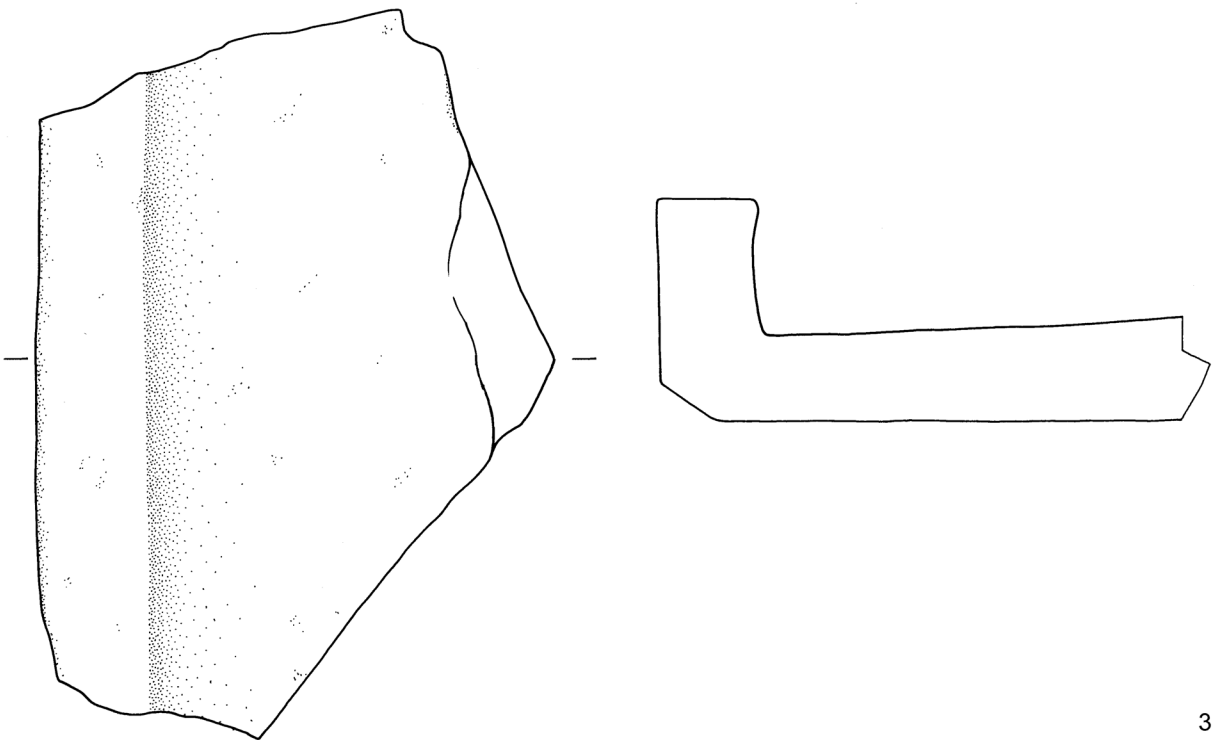
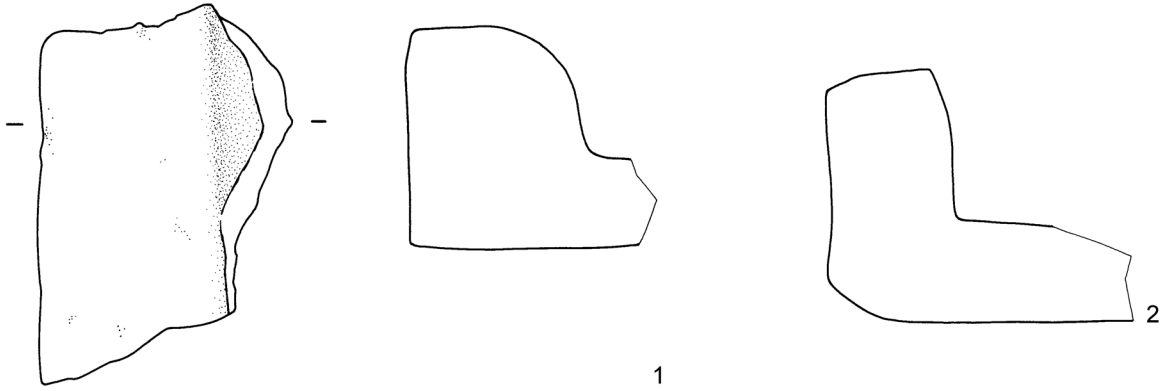


**Site 11308**

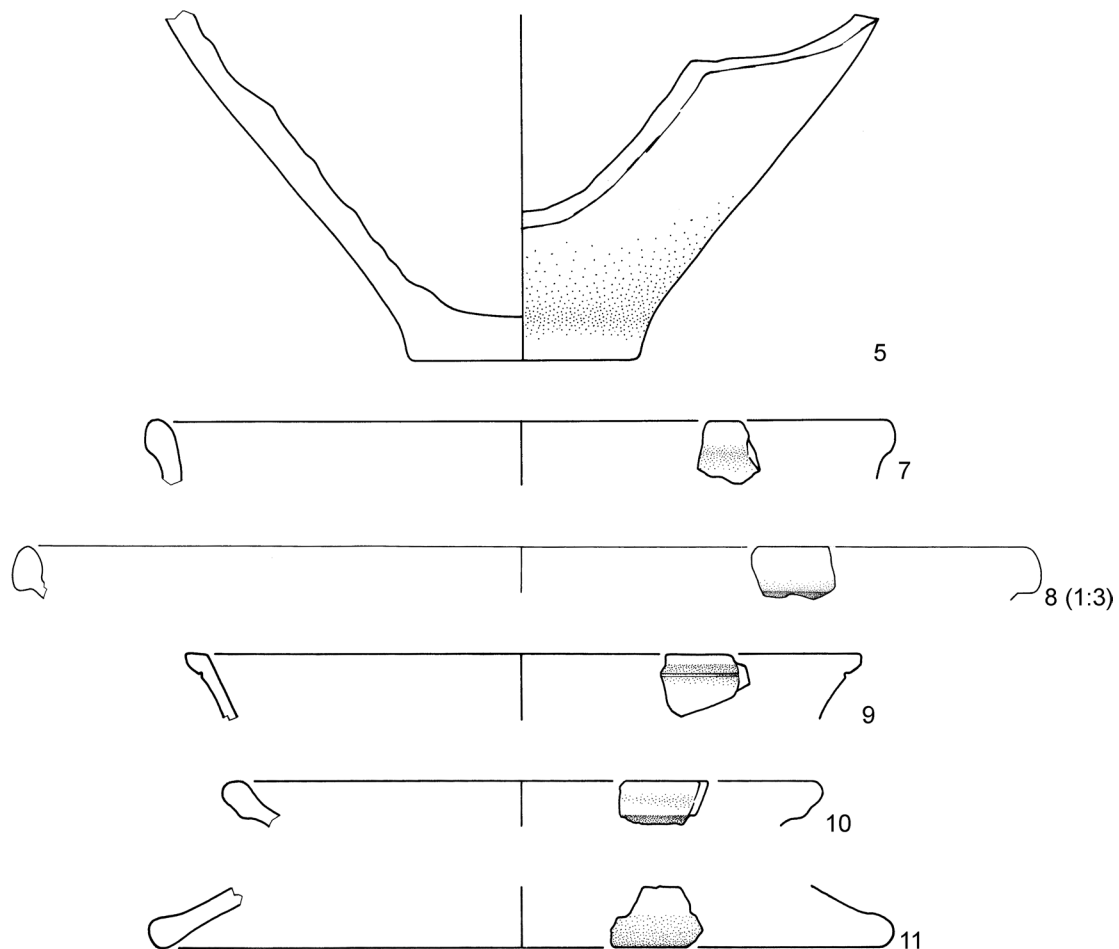




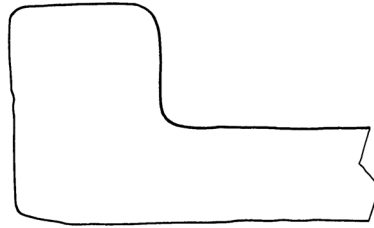
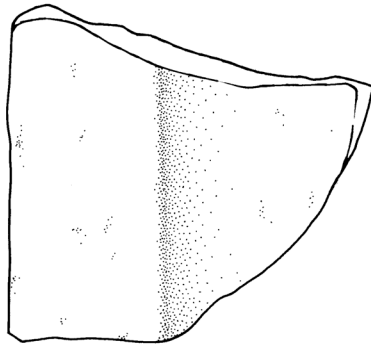
Site 11312 (1/2)



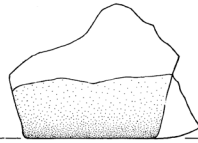
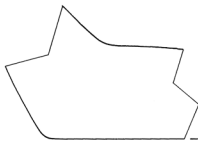
**Site 11312 (2/2)**



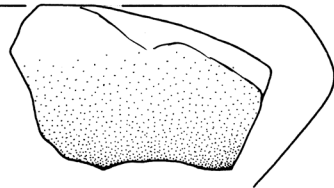
**Site 11318 (1/3)**



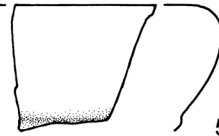
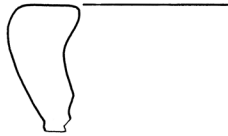
1



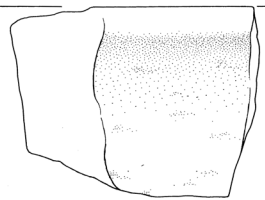
2 (1:4)



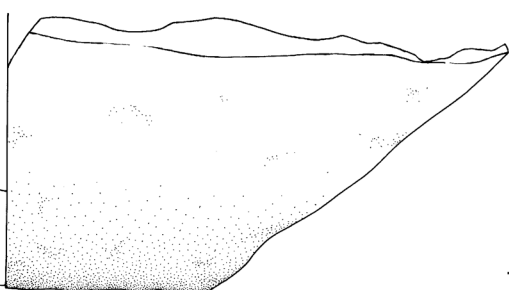
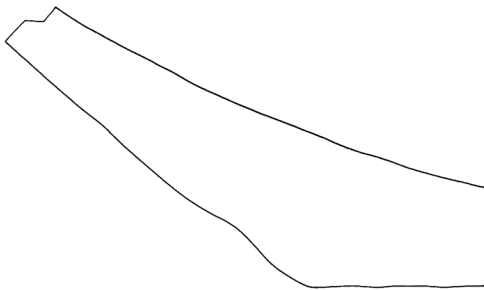
3



5

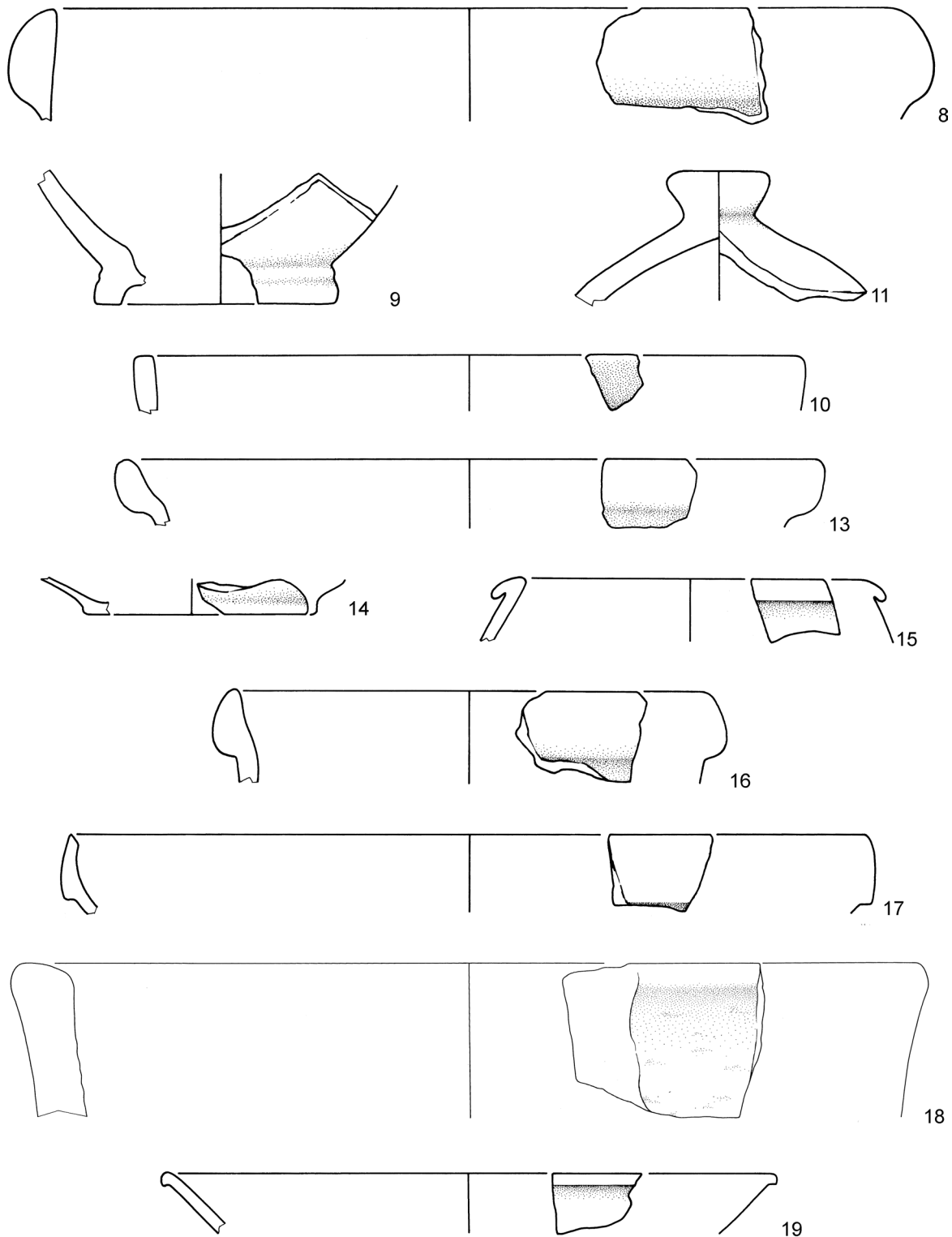


6 (1:4)

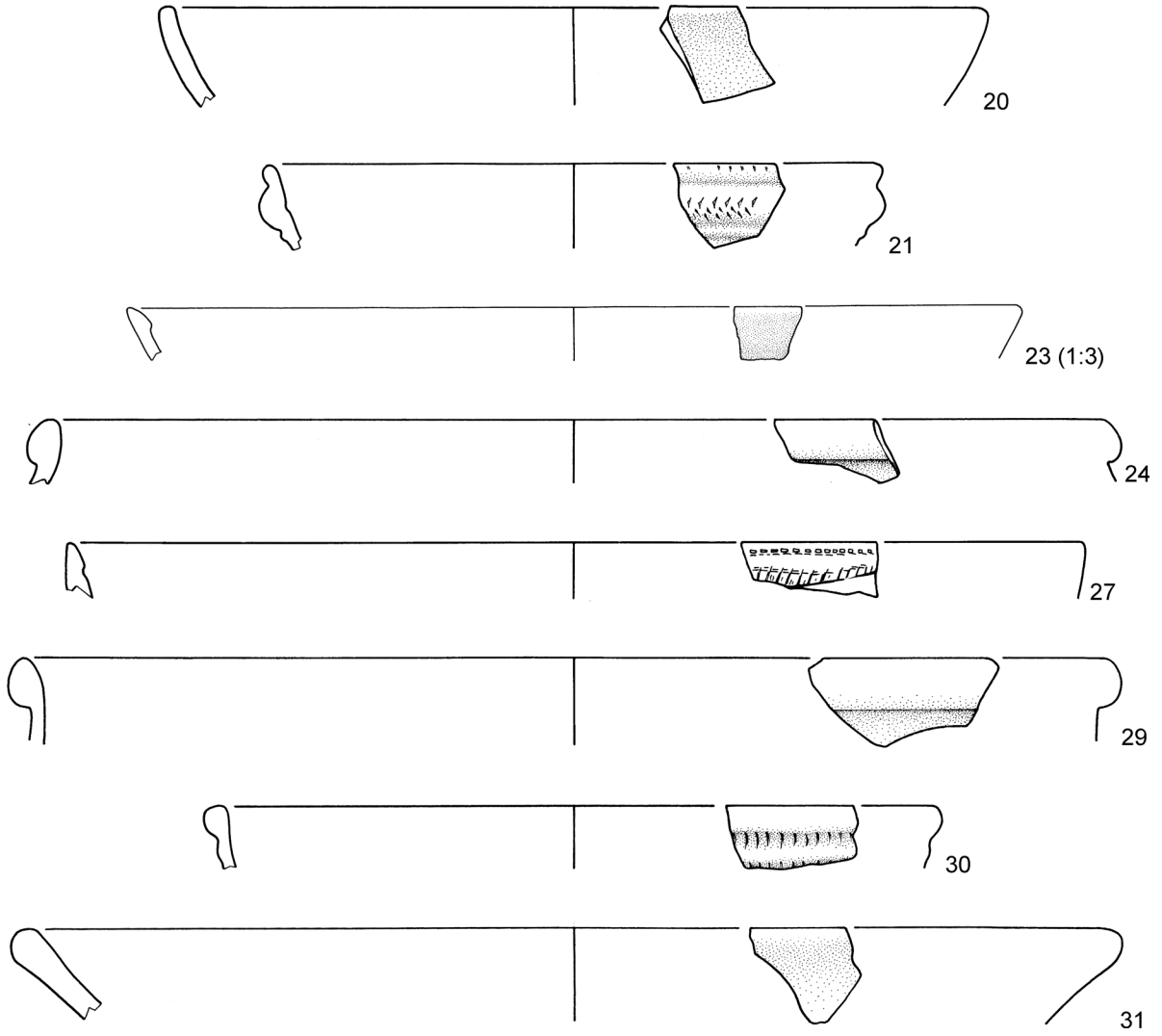


7 (1:3)

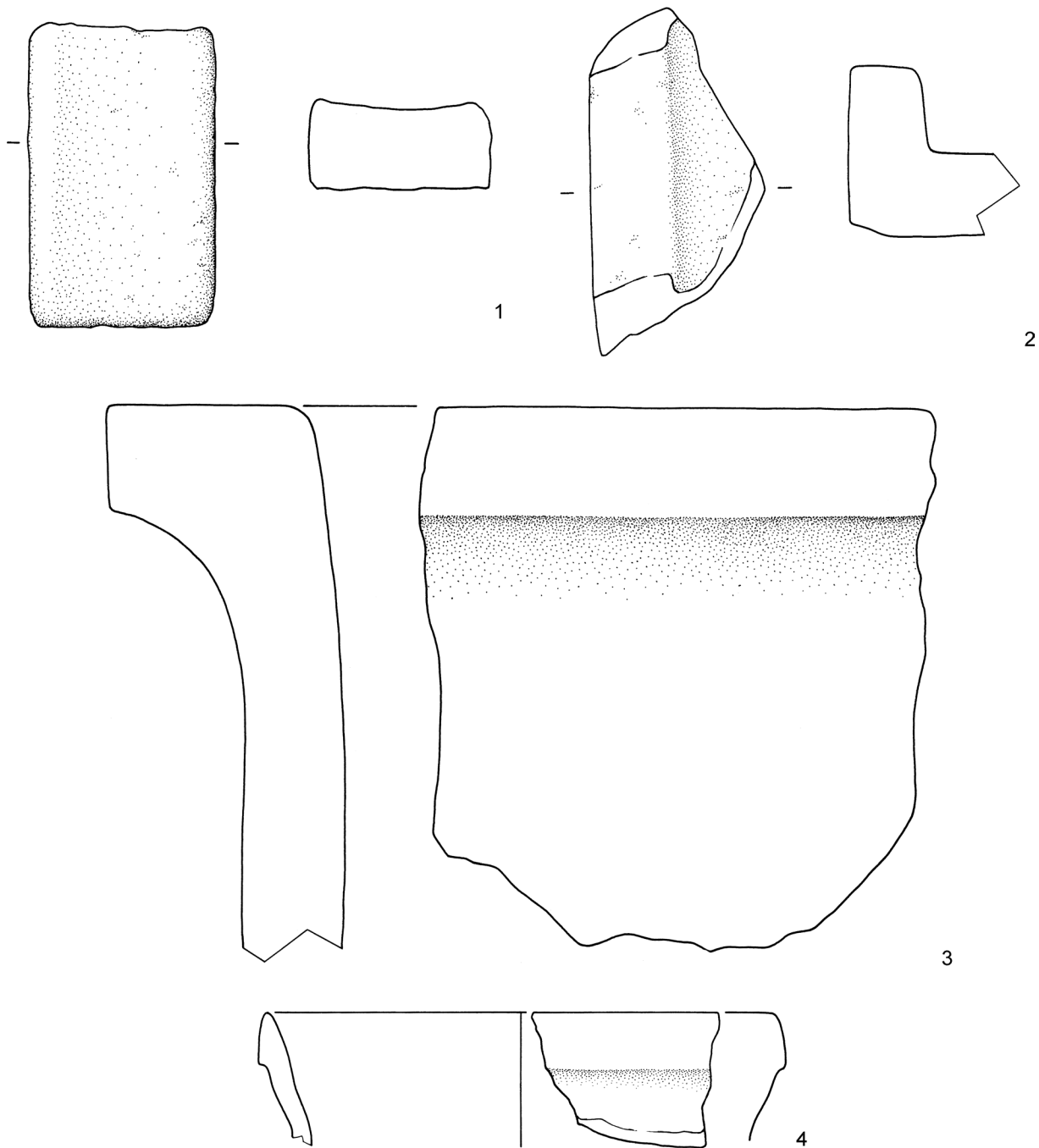
Site 11318 (2/3)



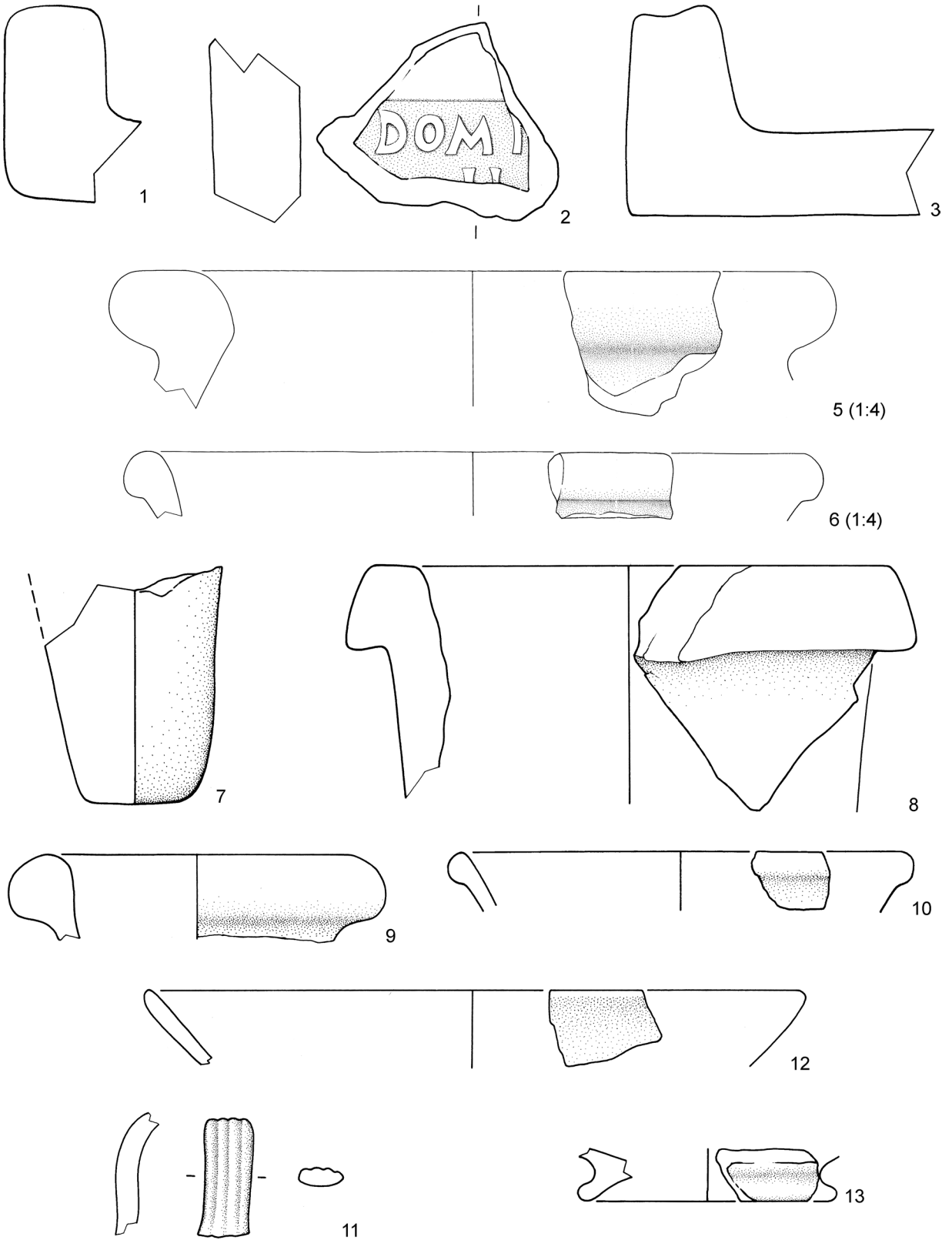
**Site 11318 (3/3)**



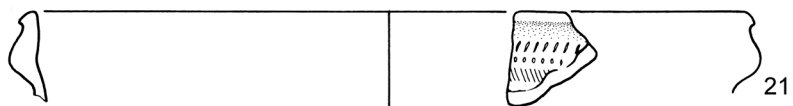
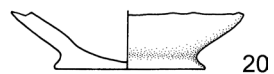
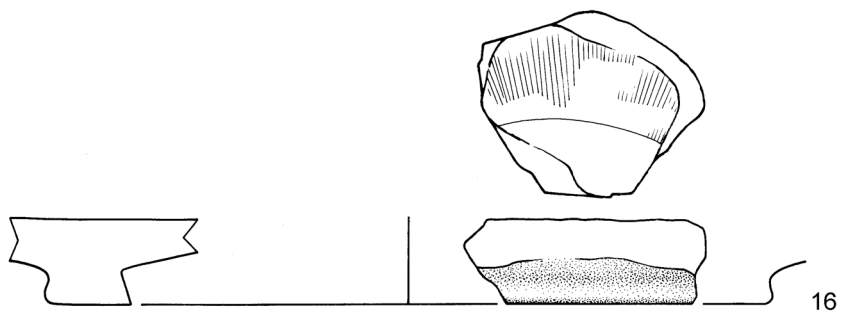
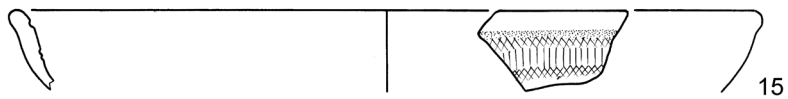
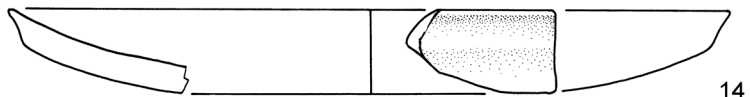
**Site 11319**



Site 11323 (1/2)

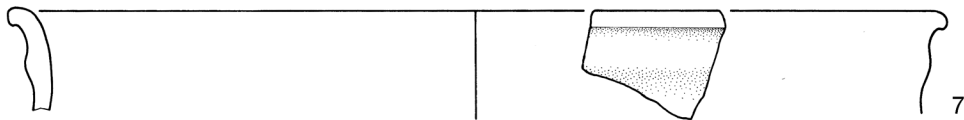
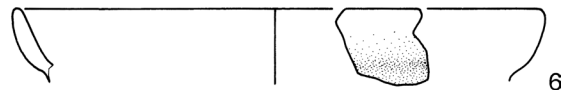
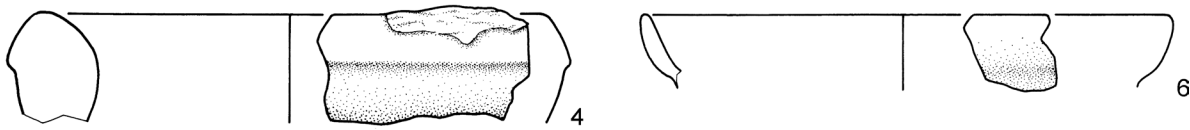
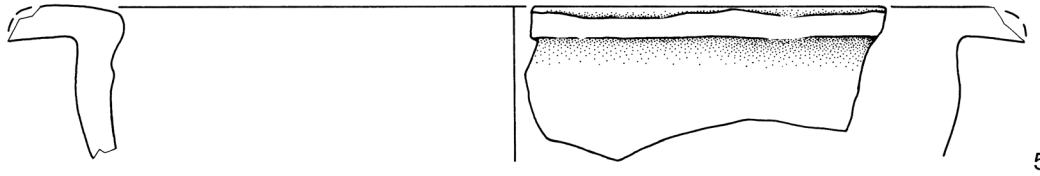
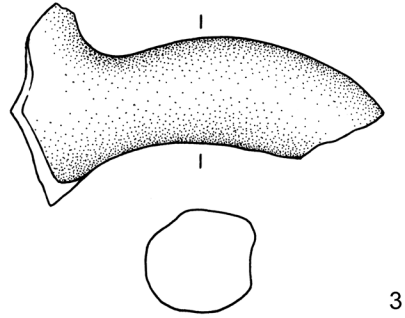
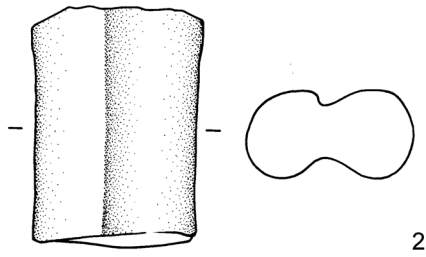
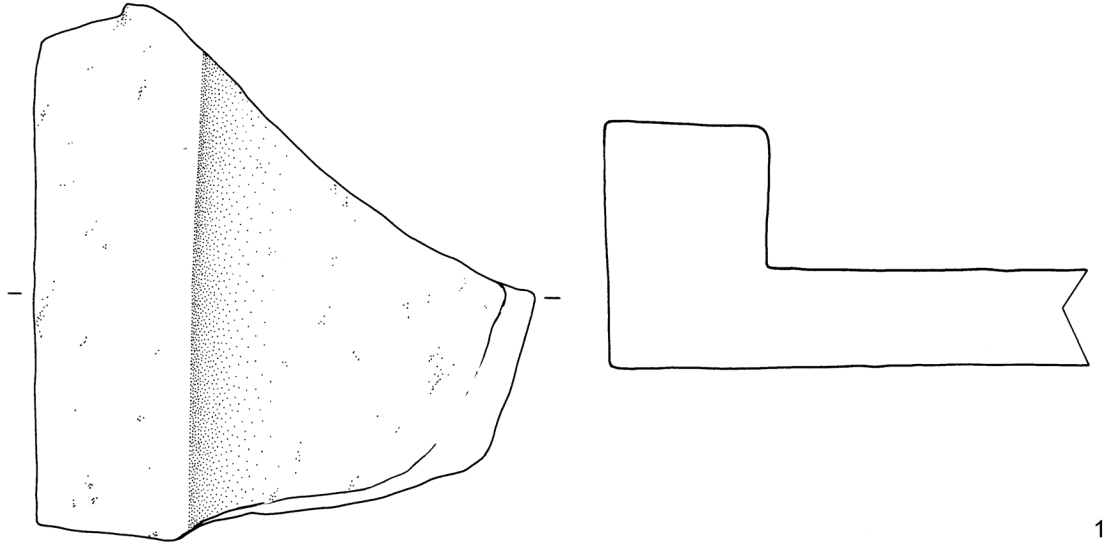


Site 11323 (2/2)

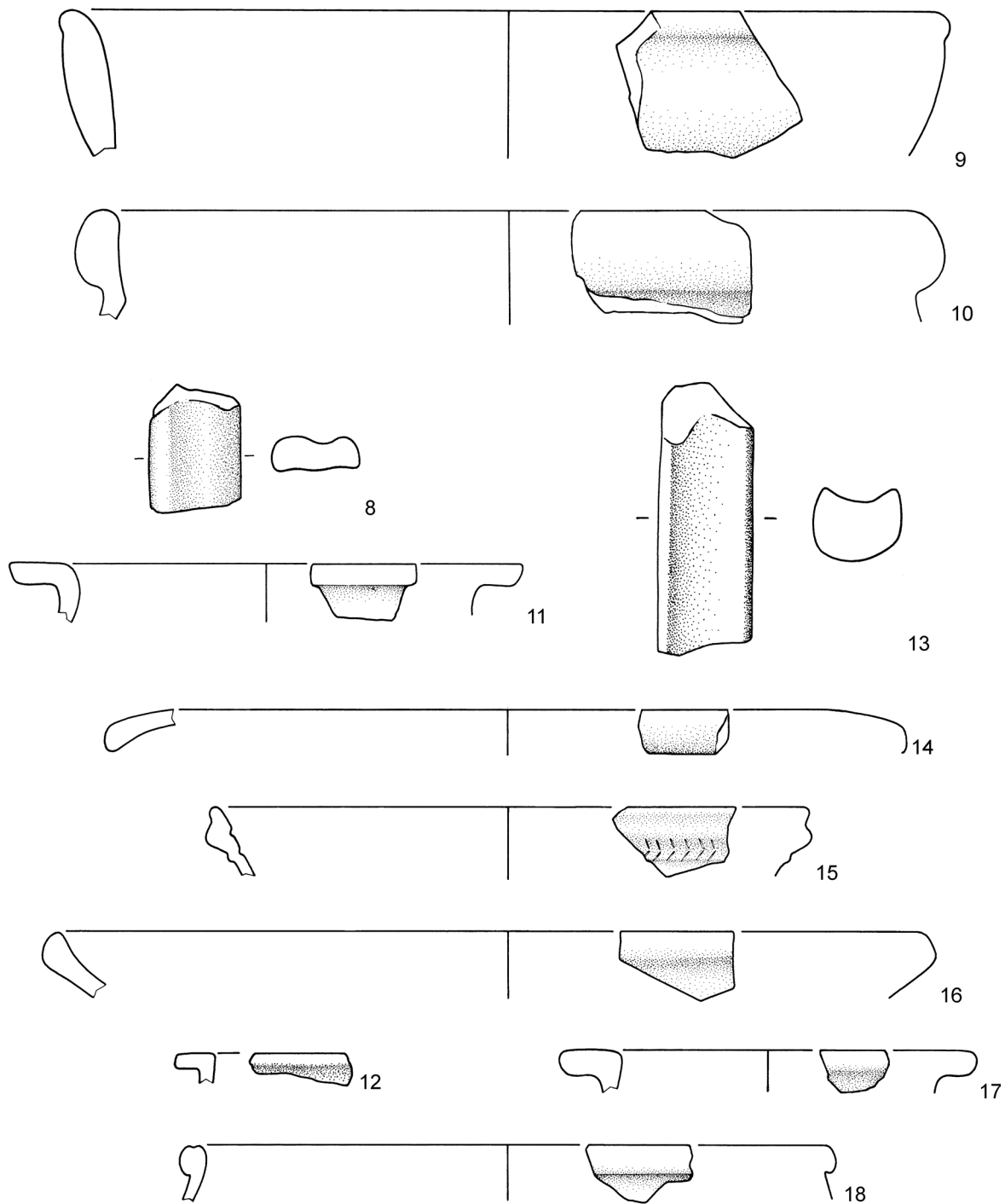




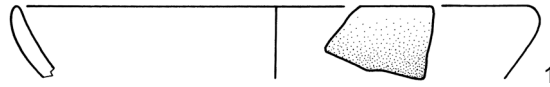
Site 11331 (1/2)



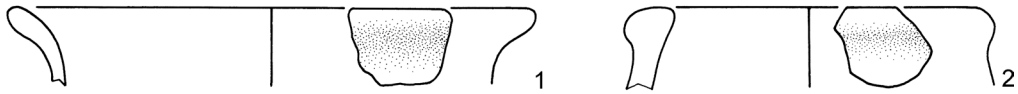
Site 11331 (2/2)



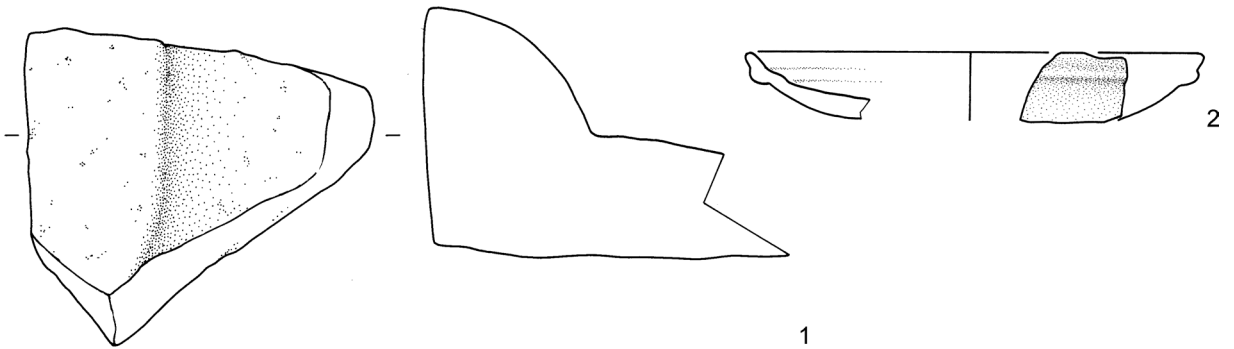
**Site 11347**



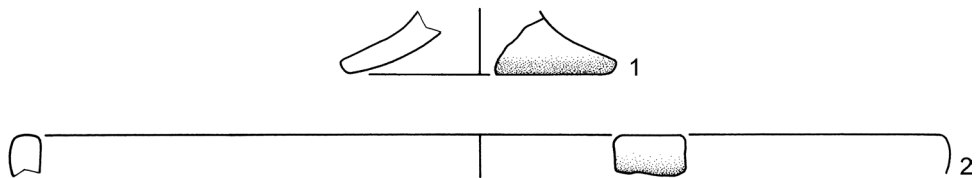
**Site 11359**



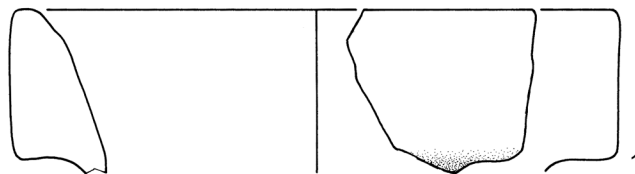
**Site 11367**



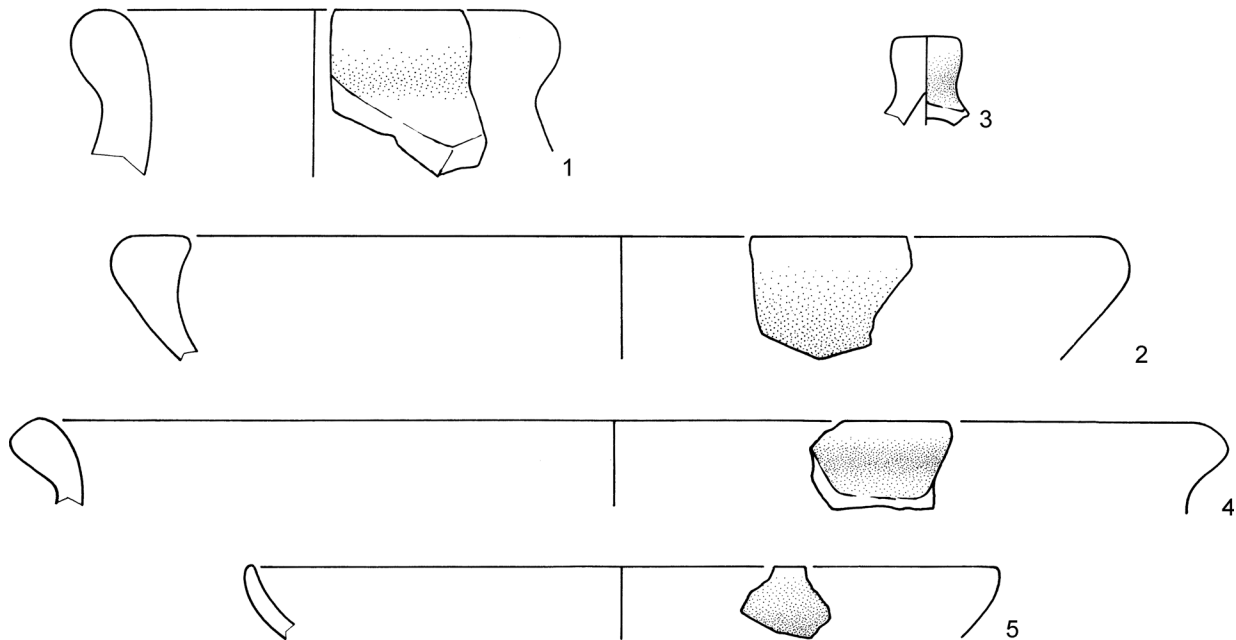
**Site 11369**



**Site 11378**



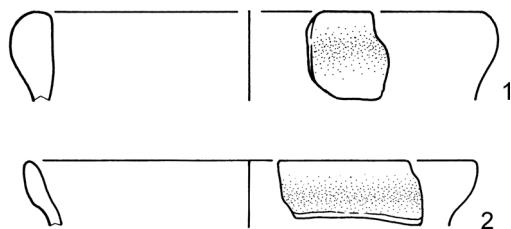
**Site 11384**



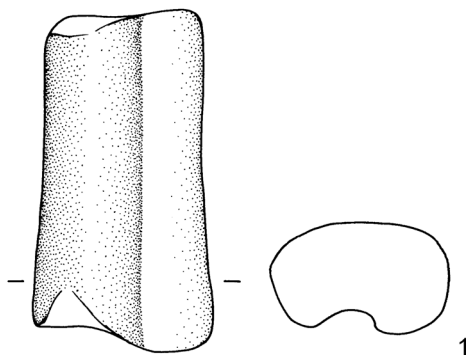
**Site 11386**



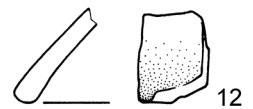
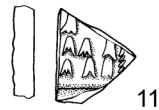
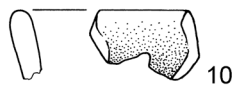
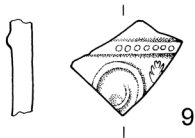
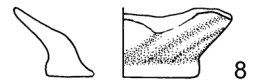
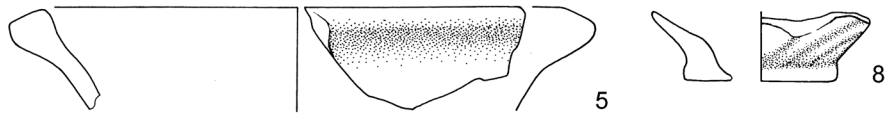
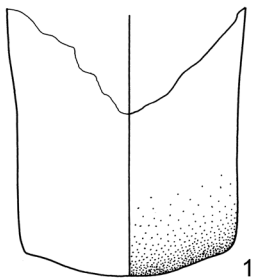
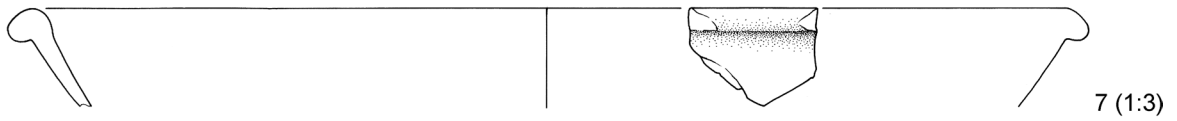
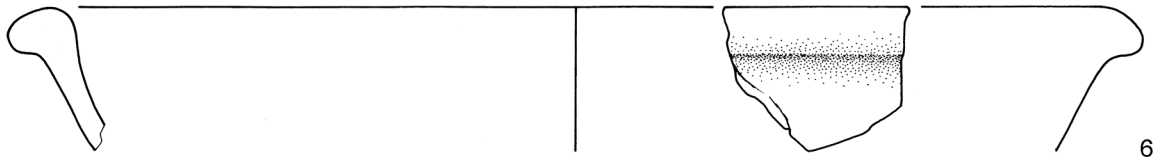
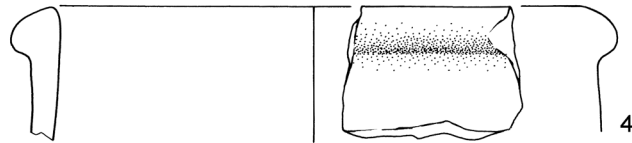
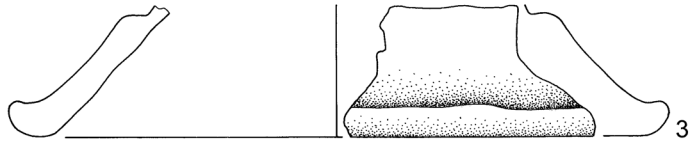
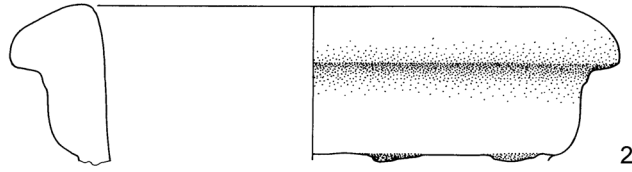
**Site 11387**



**Site 11392**



Site 15116 (1/2)



**Site 15116 (2/2)**

