

PALAEOHISTORIA

*ACTA ET COMMUNICATIONES
INSTITUTI ARCHAEOLOGICI
UNIVERSITATIS GRONINGANAE*

59/60

(2017/2018)

University of Groningen / Groningen Institute of Archaeology

&

Barkhuis

Groningen 2018

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DOI: <https://doi.org/10.21827/5beaafbcc2bf2>

Publisher's address

Barkhuis
Kooiweg 38
9761 GL Eelde
The Netherlands
info@barkhuis.nl
www.barkhuis.nl

Typesetting

Hannie Steegstra

Cover design

S.E. Boersma

Cover

Fibula from Tumulus 5, Celano (Abruzzo region, Italy). From d'Ercole 1998: La necropoli dell'età del Bronzo Finale delle "Paludi" di Celano (in: D'Ercole, V. & R. Cairoli (a cura di), *Archeologia in Abruzzo, Arethusa, Montalto di Castro* (VT), 157-166).

ISSN 0552-9344

ISBN 9789492444752

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Hellenistic Rural Settlement and the City of Thurii

The survey evidence (Sibaritide, southern Italy)

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Abstract: *This paper examines the nature and chronology of Hellenistic rural settlement in the foothills of the Sibaritide in northern Calabria (southern Italy) on the basis of selected archaeological sites of this period recorded in field surveys by the Groningen Institute of Archaeology (GIA) between 1995 and 2008. The collected material of this subset is suitable for answering questions about the chronology and nature of Hellenistic rural settlement in the foothills, and about how the identified pattern relates to the founding and development of the Hellenistic city of Thurii in the plain of Sybaris in the mid 5th c. BC. After an overview of previous field research, the authors discuss the archaeological evidence in detail and evaluate it in the context of current knowledge regarding Hellenistic settlement patterns in the Sibaritide, and in southern Italian landscapes more generally. The paper concludes by placing the data in the socio-economic and geopolitical context in which the Greek city state of Thurii functioned.*

Keywords: Archaeological survey, Hellenistic period, rural settlement, pottery, South Italy, Sibaritide, Thurii.

1. Introduction

This paper examines the nature and chronology of Hellenistic rural settlement in the Sibaritide in Northern Calabria (southern Italy) on the basis of archaeological sites recorded in field surveys carried out by teams of the Groningen Institute of Archaeology (GIA) between 1995 and 2008. The study area comprises part of the foothills bordering the plain of Sybaris near present-day Francavilla Marittima and part of the adjacent inland area along the Raganello valley (fig. 1). The Hellenistic sites we present form a selection of a much larger dataset of protohistorical and historical rural sites that in its entirety will be published in book form.¹ Here we discuss a selection of sites that stand out on account of their diagnostic Hellenistic potsherds that have survived the post-depositional processes active in this landscape, notably slope erosion and ploughing. The relatively high quality of the collected material makes this particular subset of Hellenistic rural sites suitable for answering questions about the chronology

and nature of Hellenistic rural settlement and how this relates to the founding and development of the Hellenistic city of Thurii. These sites were recorded in surveys associated with the excavations by GIA on the Timpone della Motta near present-day Francavilla Marittima between 1995 and 2000 and in surveys of the Raganello Archaeological Project (RAP) from 2000 onwards.

We start this paper with a concise overview of previous topographical work carried out in the Sibaritide and of our own archaeological surveys since the early 1990s (section 2). This overview serves as the background against which we present the selection of Hellenistic sites (in section 3). In our discussion of these sites we shall focus especially on their chronology and function as apparent from the pottery, studied by the first author. Next, we place the observations on the chronology and function of Hellenistic sites in the Sibaritide in the context of current knowledge regarding Hellenistic settlement patterns in the Sibaritide, and more generally in southern Italian landscapes (section 4). In section 5 we

¹ The catalogue of sites and sherds of the RAP surveys will appear as Vol. I (edited by P.M. van Leusen, P.A.J. Attema & F. Ippolito) in the Raganello Basin Studies (series editor P.M. van Leusen).

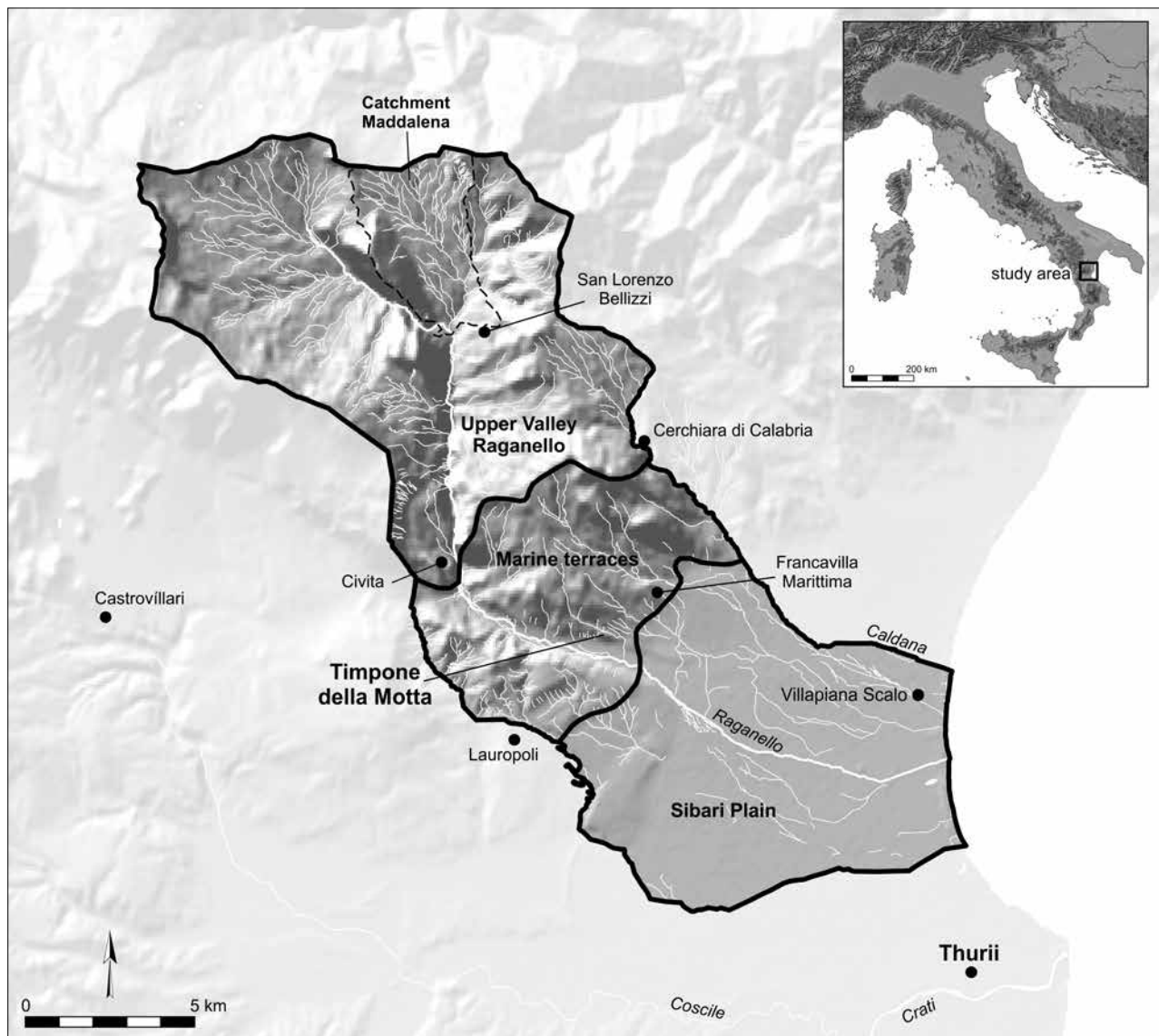


Fig. 1. Study area of the Raganello Archaeological Project. Drawing E. Bolhuis, Groningen Institute of Archaeology.

discuss our data in the light of the socio-economic and geopolitical context in which the Greek city state of Thurii functioned. This is followed by our general conclusions (section 6).

Thurii was founded in 444/3 BC in the vast alluvial plain of Sybaris as a Pan-Hellenic colony; it was built on top of the Archaic Greek colony of Sybaris which, according to the ancient sources, had been destroyed by its rival Kroton in 510/9 BC (table 1).² Given the archaeological evidence, the city of Sybaris appears to have been all but abandoned until the foundation of Thurii in

444/3 BC. Thurii was built anew to a grid plan, allegedly conceptualized by Ippodamus of Miletus. Judging by its size, architecture and material cultural remains, and its location on the Gulf of Taranto in the Ionian Sea, Hellenistic Thurii functioned as a central place for the surrounding Sibaritide countryside, just as the city of Sybaris had done before its destruction. Thurii was to retain its central-place function up to the period of the Roman conquest (205-203 BC), when, after a period of economic decline, it was made into the Roman colony of Copiae in 194 BC.³

2 For the RPC project the following chronology was used: Classical Period (480-325 BC), Early Hellenistic Period (325-200 BC), Late Hellenistic/Late Republican Period (200-30 BC). Since Thurii connotes Hellenism and Copiae the Romans, in this article we use both Early Hellenistic and Hellenistic for the period 325-200 BC. For the 2nd and 1st centuries BC we speak of the Late Republican Phase.

3 For a concise overview of the historical and archaeological data on Sibarii / Thurii, see Guzzo 2016: 299-342.

Table 1. Chronology for the Sibaritide (N. Oome).

1000-730/720	Iron Age
720/710	Foundation of Sybaris
end of 8th – 6th c. BC	Archaic period
510 BC	Sybaris destroyed by Kroton
5th c. – 325 BC	Classical period
444/3 BC	Foundation of Thurii
325 – 3rd c. BC	(Early) Hellenistic period
205-203 BC	Thurii under control of Rome
2nd c. – 30 BC	Late Republican Period
194 BC	Foundation of Copiae
27 BC – AD 14	Augustan Period
1st – mid 2nd c. AD	Early Imperial Period

The study area in which we recorded the Hellenistic rural remains is located on the edge of the vast alluvial coastal plain of Sybaris, within visual distance of the city of Thurii (about 14 km as the crow flies) and in the immediate surroundings of the protohistoric to late-Archaic settlement of Timpone della Motta (near present-day Francavilla Marittima) (fig. 2).⁴ The latter settlement, boasting a famous Archaic sanctuary dedicated to Athena, by the Hellenistic period lay abandoned, although there is evidence that ritual activity dedicated to the goddess continued in the 5th and 4th centuries BC.⁵ The rural settlements that we discuss below therefore existed in a period when the Greek colony of Sybaris had long been overbuilt by its successor city Thurii, which had been founded in the Classical period (in 444/3 BC). It is during Thurii's existence, and especially during the second half of the 4th c. BC, that a distinct rural settlement pattern developed along the foothills, comprising farmsteads, hamlets and villages and their cemeteries.⁶ Before the Hellenistic period, that is from the Iron Age, Archaic and Classical periods, we have hardly any secure evidence for rural infill, neither on the foothill slopes nor in parts further inland.⁷

An Italian survey team first discovered the rural sites in the Sibaritide in the late 1960s and compiled

an archaeological map of the Sibaritide in a period when land reclamations took place and the archaeological record was being ploughed up to the surface on a considerable scale. This topographical field research recorded a range of archaeological sites from the protohistoric to the medieval period.⁸ It is important to note here that the remains of archaeological landscapes in the plain are buried below a thick deposit of alluvial silts and clays, as soil augerings have shown (see below in section 2).

Within the framework of the RAP we investigated only a small part of the vast area (the entire plain and foothills of the Sibaritide) covered by the Italian team, as our surveys consisted of time-consuming, intensive field-by-field artefact surveys, in which large amounts of pottery were collected as part of on-site and off-site sampling procedures. Such work started with extensive survey in the period 1991-1999, but from 2000 onwards systematic field-by-field surveying was adopted for more controlled sampling of the pottery record. For these surveys fields were subdivided into 50 x 50 m blocks. Of these blocks, as a rule 20 % was covered by fieldwalkers traversing each block in straight transects while collecting all artefacts encountered along them. In this way, dense scatters of potsherds ('sites')

4 See for a concise overview of the historical and archaeological data on Francavilla Marittima: Guzzo 2011. For the excavations of the Groningen Institute of Archaeology at Timpone della Motta with which the surveys discussed here are closely related, see Kleibrink 2006.

5 Guzzo 2016: 339-340.

6 Attema *et al.* 2010: 151-152; Oome & Attema 2008.

7 Interestingly the surveys have revealed a quite dense late Bronze Age rural pattern (De Neef *et al.* 2017, Ippolito 2016).

8 De Rossi *et al.* 1969. See also Attema *et al.* 2010: 95-100.

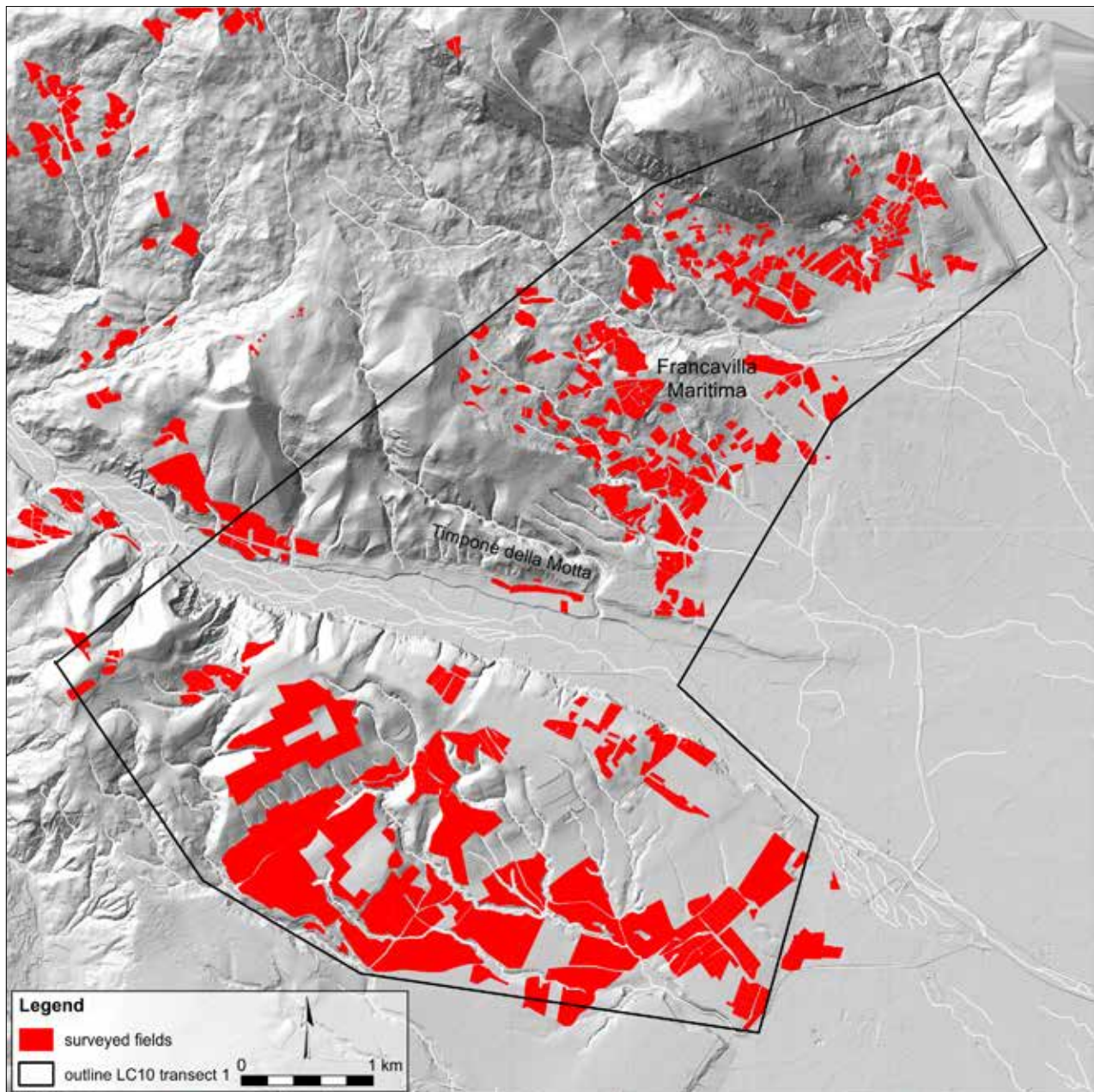


Fig. 2. Survey areas in the surroundings of the Timpone della Motta (Lidar data collected by EUFAR in 2008, and reproduced here with permission of the K.U. Leuven). Drawing E. Bolhuis, Groningen Institute of Archaeology.

were recorded, as well as more dispersed potsherds ('off-site').⁹

In the foothills of the Sibaritide the Hellenistic rural landscape is still well visible on the surface, in the form of pottery scatters and occasionally also structural remains. Conditions for surveys in ploughed fields and olive groves are on the whole good, though dust

and natural stones do affect the visibility of potsherds. In contrast with the foothills, surveys in the plain will not yield data on any sites of the periods we are interested in. Since the end of the Roman period, the river Raganello, and many similar torrents draining into the plain of Sybaris, have deposited thick layers of clay and clayey silts onto the ancient settled land surfaces here.¹⁰ Their thickness is such that even deep-ploughing will as

⁹ See Van Leusen & Attema 2001/2002.

¹⁰ Attema 2017: 460.

a rule not bring any archaeological remains to the surface, not even from the medieval period.¹¹ Yet the presence of ancient rural settlement below the alluvium is attested by numerous potsherds found in many of the hundreds of mechanical augerings carried out in the context of geo-archaeological research in the 1960s, during the search for the Greek colony of Sybaris.¹² Prior to presenting and discussing our dataset on Hellenistic rural settlement, based on the GIA surveys, we shall first provide some relevant evidence from the 'search for Sybaris', as well as other previous research that has revealed important aspects of Hellenistic rural settlement in the Sibaritide.

2. Previous research in the Sibaritide

Existing knowledge on the Hellenistic settlement pattern, into which the findings of the RAP fit, is provided by two main sources. The first consists of the undertakings that we can collectively label as 'the search for Sybaris'. These provide information on past environmental conditions in the plain and the discovery of the stratigraphical position of Hellenistic Thurii above Archaic Sybaris and below Roman Copiae. An intensive programme of soil augerings, part of these early investigations, offered useful indications of Hellenistic presence, that we could build on. The second is the already mentioned research by the Italian team of surveyors active in the 1960s, which constituted the first large-scale archaeological survey in the area.¹³

2.1 The search for Sybaris

The first archaeological investigations in the Sibaritide started in 1879, focusing on the search for the Greek colony of Sybaris. They were led by Francesco Cavallari, director of the Museum in Syracuse.¹⁴ Cavallari carried out a series of excavations extending from Terranova di Sibari, along the hills on the left bank of the Crati river, up to Pollinara. In 1887 and 1888, Prof. Luigi Viola excavated the necropolis of Torre Mordillo, which had been found by drilling.¹⁵ Between 1928 to 1930, Prof. Edoardo

Galli excavated two Roman villas at a location known as the Grotta del Malconsiglio, on the right-hand bank of the Coscile river.¹⁶ Noteworthy was the observation of large reused blocks of tufa found in the foundation of the buildings. This suggested the presence of a major ruin of Greek origin somewhere in the vicinity. At this time the exact location of Sybaris was still unknown.

In 1931, following on his tour of Magna Grecia, Prof. Ulrico Kahrstedt of the University of Göttingen published his ideas about the location of ancient Sybaris.¹⁷ He concluded from historical references to Sybaris that the ancient river Sybaris was not the present river Coscile, but more probably the creek of San Mauro. Hence the ancient city of Sybaris should be located somewhere between what is now called the river Crati and the San Mauro creek which enters the sea to the south of the Crati. Inspired by this publication, senator Umberto Zanotti-Bianco organized an excavation campaign specifically to test Kahrstedt's theory.¹⁸ This excavation unfortunately failed to uncover definite evidence for the exact location of ancient Sybaris, although it suggested that the net was closing.¹⁹ Indeed the city of Sybaris was eventually found down in the plain not far from the sea, buried below metres of sediment.

From 1949 until 1953 Donald Freeman Brown continued the search for Sybaris by soil drilling. In 1950 he succeeded in obtaining the first evidence of a cultural sequence with Roman material in the upper levels, supposedly belonging to Copiae; Hellenistic and Attic pottery of Thurii below it; and finally East Greek pottery belonging to Sybaris in the lowest levels.²⁰ Systematic augering in 1952-53 in the area named Parco del Cavallo confirmed the stratigraphy encountered in 1950, and the approximate delimitation of an area which had been occupied over at least the last six centuries BC.

In 1960 the *Fondazione Lerici del Politecnico* of Milan organized an experimental campaign in the Sibaritide to explore the possibilities of their geophysical facilities. The results were satisfying and they continued the research and experiments in the Sybaris area in the following years (1961-65), in collaboration with

11 Attema 2017: 460: the causes of this alluvial sedimentation are debated in the literature, see Vanzetti, 2013: 24-28.

12 Rainey & Lerici 1967.

13 De Rossi *et al.* 1969.

14 Rainey & Lerici 1967: 26.

15 Rainey & Lerici 1967: 30. Not until 1963 was the Greek settlement of Torre Mordillo found by drilling.

16 Rainey & Lerici 1967: 30-31.

17 Rainey & Lerici 1967: 32.

18 Rainey & Lerici 1967: 33.

19 During this campaign they excavated the area named Parco del Cavallo, the finds from which were published by Paola Zancani-Montuoro. Rainey & Lerici 1967: 34.

20 Rainey & Lerici 1967: 34-35.

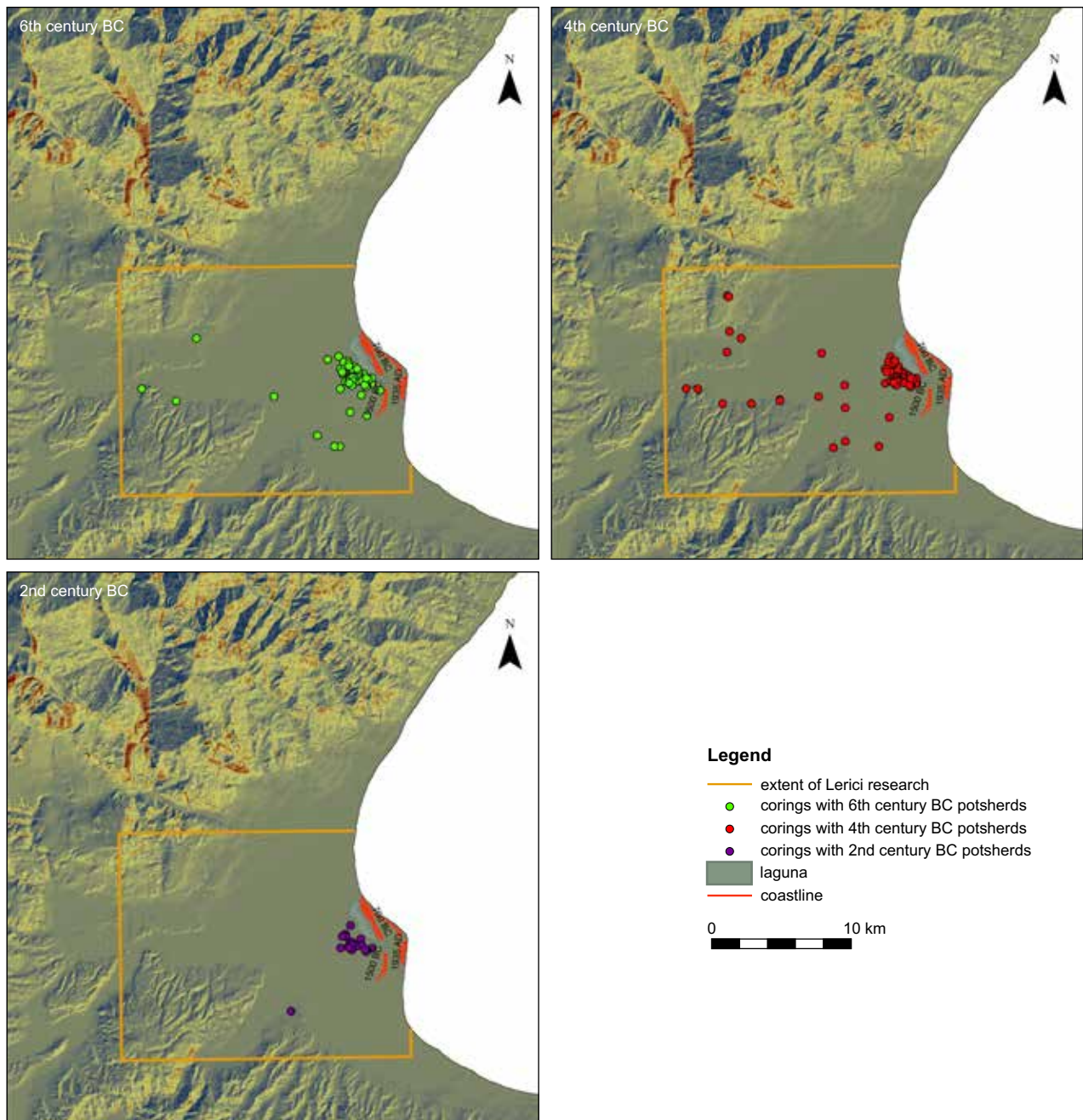


Fig. 3. Results from the Rainey/Lerici corings in the Sibaritide. Drawing E. Bolhuis, Groningen Institute of Archaeology (after Roovers 2011: Figs. 9b, 10b and 11b).

the University Museum in Philadelphia.²¹ In 1961 the so-called 'long wall' in the area of the Casa Bianca was found, along which excavations took place in 1962, as well as in the Parco del Cavallo.²² This is where the exact location of Sybaris was detected; and from that moment on, the ancient Greek colony was gradually brought

to light through excavation, including the Hellenistic phase of Thurii and that of Roman Copiae.²³ Important in the context of this paper is the fact that the search for Sybaris as a by-product yielded evidence of a now buried *chora* (the countryside of a Greek city) belonging to the periods of Greek colonisation, linked to the cities

²¹ See also: Bullitt 1969.

²² Rainey & Lerici 1967: XIII-XIV.

²³ Rainey & Lerici 1967: XV. See also: Kleibrink, 2001. The excavated remains visible today pertain almost exclusively to the Roman and Hellenistic phases.

of Sybaris and Thurii. Among the many augerings carried out to locate Sybaris, a large part contained archaeological materials, evidence of the rural occupation of the plain of Sybaris.²⁴ In fig. 3 we present the finds from the augerings in phase maps relating to the urban phases of Sybaris, Thurii and Copiae.²⁵

2.2 Previous landscape surveys

Following the discovery of the Greek colony of Sybaris in the 1960s, the first survey in the Sibaritide plain and its foothill zone was performed by a team of Italian researchers.²⁶ The aim of this survey was to create a socio-economic context for the results of the excavations in Sybaris.²⁷ Furthermore, the Italian team wanted to investigate the development of the settlement patterns of the Sibaritide from the protohistoric up to the late Roman period. The survey resulted in the impressive *Carta Archeologica della piana di Sibari* (fig. 4).²⁸

To achieve this, the team divided the Sibaritide into three separate zones, of which zone one, i.e. the part to the north of the rivers Coscile and Crati (fig. 5), was surveyed by Lorenzo Quilici and Stefania Quilici-Gigli.²⁹ According to Quilici, the finds from this zone, apart from protohistoric pottery, belonged mainly to the Hellenistic-Roman period.³⁰ He emphasized that the plainness of the ceramics – mostly coarse ware and achromatic fineware (rarely black gloss) – was

characteristic of this area, as was the lack of architecturally elaborate farm buildings.³¹ Further, Quilici remarked that no cisterns had been detected, implying that the rural population exploited natural water sources. He also noted that the cemeteries appeared to have only simple graves.³²

Reasoning from the distribution of sites over the landscape, Quilici reconstructed an intricate set of communication routes across the entire area (see fig. 4).³³ The most important among these is the route running from north to south, more or less parallel to the ancient coast line (*litoranea protostorica*).³⁴ This coastal route could be reached from inland mountain passes and routes along riverbeds, for example the lower valleys of the rivers Caldana and Raganello.³⁵ These inland and river routes were connected to a prehistoric route (*grande asse preistorico materano*) running over the mountains of Calabria from north to south, by all of its side roads connecting the Ionian with the Tyrrhenian coast.³⁶

The colony of Thurii is thought to have formed a hub in this infrastructural network during the Classical and Hellenistic periods, and, according to Quilici, the *chora* would have been defended by forts and lookout posts inland around the Sibaritide, more specifically to defend the *astu* (urban centre) and *chora* of Thurii.³⁷ Within this defended territory, Quilici discerns 'large agricultural aggregates' (villages) with nearby burial grounds

24 Rainey & Lerici 1967: XIII.

25 See Attema 2017: 461. Actually, already at the start of the Roman period, land (of the Sibaritide) was abandoned, while failing counter measures against the silting up of drainage canals led to the concurrent formation of extensive marshlands, i.e. malaria ridden swamps (Attema 2017: 466; Roovers 2011). T. Roovers compiled these phase maps for the Archaic and Classical Greek, Hellenistic and Roman periods on the basis of finds recorded in the soil augerings carried out in the Rainey and Lerici prospections in the Sibaritide, see detailed report in Roovers 2011.

26 De Rossi *et al.* 1969.

27 De Rossi *et al.* 1969: 91.

28 See De Rossi *et al.* (1969) for the official *Carta Archeologica*. Here, De Rossi *et al.* 1969: 150, Fig. 3 was used, because of the indicated distinction of settlements and communication routes.

29 De Rossi *et al.* 1969: 93, Fig. 1. Zone one is partly overlapped by the RAP research area of the GIA, see below.

30 De Rossi *et al.* 1969: 98. The 'Hellenistic-Roman' sites include areas where antique material has been found, although not precisely datable (De Rossi *et al.* 1969: 147-148). During the RAP surveys many of these 'Hellenistic-Roman' sites have proven to be Early Hellenistic. According to L. Quilici (De Rossi *et al.* 1969: 148), the lack of *terra sigillata* among the ceramic finds indicated that during the Roman period there had been little trade with other regions. However, we believe this to be due to the larger part of these sites belonging exclusively to the Early Hellenistic period, given the dating of both amphorae and common wares.

31 De Rossi *et al.* 1969: 98.

32 De Rossi *et al.* 1969: 98.

33 De Rossi *et al.* 1969: 97, 150, Fig. 3, 151. But see van Leusen and Attema 2003 on possible methodological biases in the reconstruction of this network.

34 De Rossi *et al.* 1969: 150, Fig. 3.

35 De Rossi *et al.* 1969: 151.

36 De Rossi *et al.* 1969: 150, Fig. 3, 153, Fig. 4.

37 De Rossi *et al.* 1969: 151, 154.

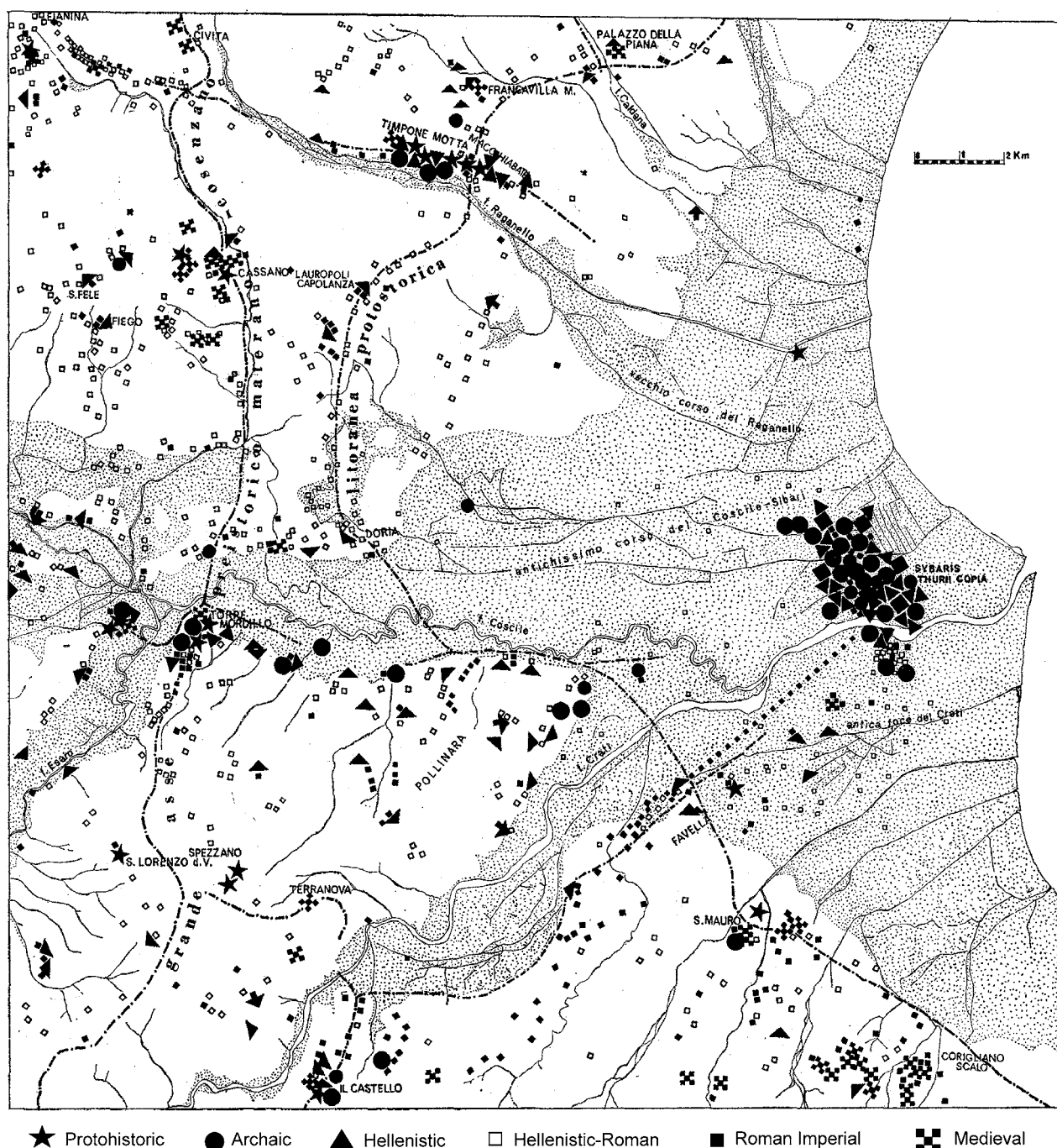


Fig. 4. Chronological classification of settlements and communication routes in the Sibaritide (De Rossi et al., 1969: 150, Fig. 3).

located along the major routes.³⁸ To these we may reckon the Hellenistic settlement built on the protohistoric site of Torre Mordillo, published by Colburn.³⁹ On the hills *villaggi* (hamlets) were identified, located near water sources, with scattered farmsteads in their vicinity.⁴⁰

In sum, the research by the Italian team reveals a densely settled and well-connected rural landscape in

the Sibaritide in the Archaic to Roman periods, with a preponderance of rural sites dating to the Hellenistic-Roman period. To evaluate how the results of the GIA's intensive surveys tally with the survey by the Italian team, and what new evidence our methodology of intensive surveying and pottery study adds to current knowledge of Hellenistic rural settlement in the

³⁸ De Rossi et al. 1969: 98, 148.

³⁹ Colburn 1977: 479

⁴⁰ De Rossi et al. 1969: 98, 149.

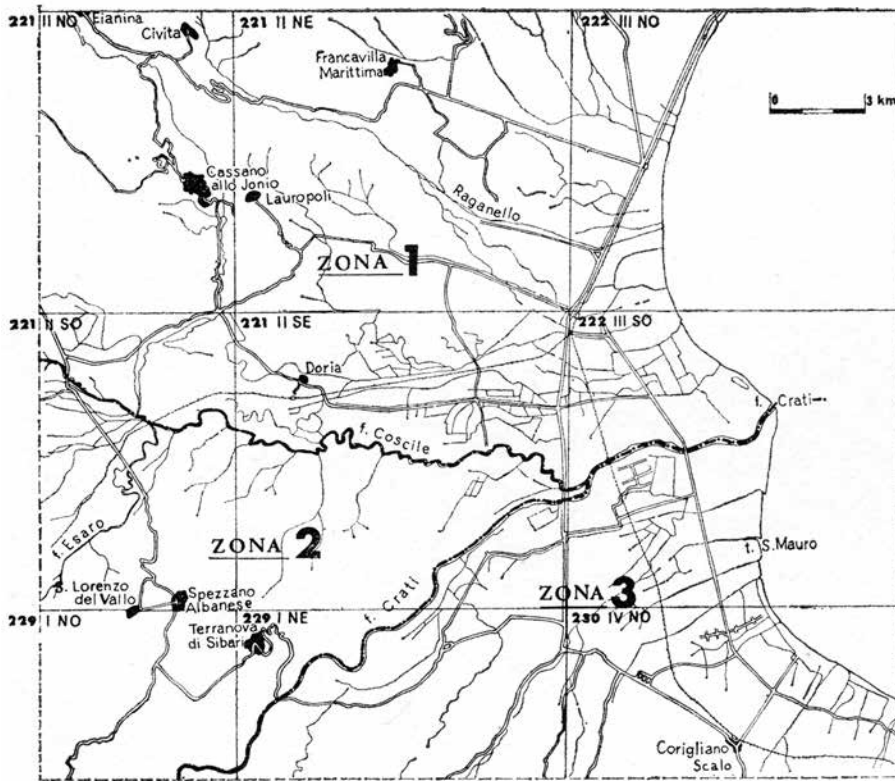


Fig. 5. Three research zones in the Sibaritide (De Rossi et al., 1969: 93, Fig. 1).

Sibaritide, we shall in the following present the site and pottery data of the surveys performed by the GIA teams.

2.2.1 The GIA surveys

In 1991 and 1992, the GIA carried out its first intensive artefact surveys in the Sibaritide on the site of the sixth-century BC settlement area (plateau I) of the Timpone della Motta near present-day Francavilla Marittima, where the GIA had started to excavate in 1991.⁴¹ The aims of these surveys were to obtain insight into the extent, density, nature and chronology of the surface ceramics and, on the basis of their distribution, to decide where to excavate.⁴² These surveys yielded information about Archaic and earlier occupation on the slopes of the protohistoric settlement of Timpone

della Motta, and did not produce Hellenistic materials pointing to rural settlement.⁴³

In 1994, a regional field survey was conducted between the archaeological sites of Timpone della Motta and Broglio di Trebisacce, with the main aim to revisit, study and document sites recorded in the 1960s.⁴⁴ Further, a survey in 1995 focused on the catchment area of the ancient settlement of Timpone della Motta (within a 5-km radius) as we devised an adequate method for field survey in this area;⁴⁵ known rural sites in the vicinity of this site were revisited and new ones mapped.⁴⁶

In 1997, the Sibaritide became one of three regions to be studied in the context of the *Regional Pathways to Complexity* (RPC) project, run jointly by the archaeology departments of the University of Groningen and the

41 Haagsma 1996: 47.

42 Attema, Delvigne, Drost & Kleibrink 1997/1998: 378.

43 The ceramics found here do not correspond with the Hellenistic material found during the RAP surveys; the Archaic ceramics are of a more powdery and yellowish fabric.

44 Haagsma 1996: 47. See De Rossi et al. 1969.

45 Haagsma 1996: 47.

46 On the flanks of the hill of Timpone della Motta there are three plateaus on which 6th-century settlements were located (Haagsma 1996: 48). One of the aims of the 1995 survey was to identify a rural pattern that could be related to these 6th-century settlements. However, no pattern could be ascertained, as the concentrations of such pottery were nearly nil (Haagsma 1996: 51). During the intensive survey and excavations (of 1995) archaeological material of earlier periods did come to light (Middle Bronze Age and Iron Age) (Haagsma 1996: 48). Unfortunately, after many years of storage the find bags of the 1995 surveys have disintegrated, rendering the provenience of the pottery uncertain and the sherds useless for analysis.

Free University of Amsterdam.⁴⁷ The RPC project (1997–2002) was part of the research programme *Landscape and Settlement* of the Netherlands Organisation for Scientific Research (NWO). Its primary aim was a multidisciplinary and comparative assessment of processes of centralization and urbanization in three Italian landscapes during – roughly – the first millennium BC.⁴⁸ Particular attention was paid to the internal social dynamics of the regions investigated and, correspondingly, to native responses to and interaction with Greek and Roman colonization. As part of this project, 2000 saw a survey campaign in the surroundings of Timpone della Motta, focusing on the fluvial and marine terraces on the south side of the river Raganello (fig. 2).⁴⁹ These surveys employed two methods operating on two scales: one team carried out an extensive site-oriented survey focusing on the recording of artefact scatters and on-site sampling of artefacts at 5-m intervals, the other team applied intensive block surveying, in which fields were gridded in 50 by 50 m units and traversed by surveyors at 10-m intervals. From these units surveyors picked up all archaeological surface materials, which were subsequently quantified and studied. In this way also off-site and small scatters of potsherds were recorded and studied.⁵⁰ In later years the GIA surveys were modelled on the intensive survey method, operated at an even more intensive level. The surveys of the 2000 campaign yielded a range of Hellenistic sites, identifying almost twice as many sites as were recorded in the previous, Italian survey. Moreover, the intensive survey gave a good indication of the density of the distribution of off-site pottery over the landscape.

2.2.2 RAP surveys

In 2002, a field survey was carried out in the area to the north of the Raganello extending to the river Caldanelle (fig. 2).⁵¹ During this campaign the “Raganello Archaeological Project” (RAP) was launched, a collaboration between archaeologists of GIA, guest researchers and members of the local speleological group *Sparviere*.⁵² The principal aim of the RAP was to document known sites and artefact collections of the Raganello valley, carry out revisits and perform new field research, in order to reconstruct long-term settlement and land use in the valley, from prehistory up to the Byzantine period.⁵³ The Raganello valley comprises the lower valley opening onto the plain, the adjacent foothills and the mountainous Sibaritide interior. Between 2003 and 2008, annual surveys took place here.⁵⁴

In 2003 and 2004, surveying continued in the area north of the Raganello as far as the river Caldanelle (transect I) (fig. 2).⁵⁵ In 2005, a campaign was held to study the finds of previous surveys and reassess field data with a focus on geo-archaeological aspects.⁵⁶ In 2006, two more research transects (II and III) (fig. 6) were added to the examined transect (Transect I) in the foothill zone, where surveys had taken place from 1995 until 2004.⁵⁷ Transect II runs east-northeast from Cività and the Timpa del Demanio towards the Monte Sellaro, then north to Banco del Ferro. Transect III runs west-east through the upper watersheds of the Raganello (3A) and Maddalena streams (3B) (fig. 6).

In 2007, areas uphill from Francavilla Marittima were targeted for intensive survey, while the upland valley ‘Vallone del Castello’ (between Transects I and II) was investigated by extensive survey. In addition, the team carried out field-survey and soil-depth studies in the upland area called ‘Maddalena’.⁵⁸ In a survey in 2008,

47 Attema, Burgers & Van Leusen 2010. See also: Van Leusen & Attema 2001/2002: 397.

48 Attema, Burgers & Van Leusen 2010.

49 Attema, Van Leusen & Roncoroni 2006: 2.

50 See Van Leusen 2002, chapter 12 for a detailed description of the methodologies used.

51 Attema, Van Leusen & Roncoroni 2006: 2.

52 Even from 1995, members of the GIA had been participating in the activities of *Sparviere*, increasing their knowledge of the hinterland while exploring Monte Sellaro (Attema, Van Leusen & Roncoroni 2006: 3; Feiken & Weterings, 1998). The speleological group *Sparviere*, directed by Antonio La Rocca, had since 1976 been mapping caves, rock shelters and open-air sites in the mountains of the Raganello valley and its direct surroundings (Attema, Van Leusen & Roncoroni 2006: 2; Sanguineto & La Rocca 1997). Their work has resulted in an impressive collection of ceramics, mainly protohistoric, deriving from all three different site types mentioned above. Both teams agree on the importance of studying and publishing these sites (see especially Ippolito 2016).

53 Attema, Van Leusen & Roncoroni 2006: 3. See also: Attema 2012 and Attema & Ippolito 2015. Two PhD dissertations have been completed within the framework of the RAP: Ippolito 2016 and De Neef 2016.

54 Sites of the surveys in 2000 and 2002 have been added to those recorded in the 2003–2008 surveys.

55 Van Leusen & Attema 2006: 90. See also: Attema, Delvigne, De Haas & Van Leusen 2004.

56 Van Leusen & Attema 2006: 90. See also: Attema 2007.

57 Van Leusen 2006: 1. See also: Attema 2006.

58 Van Leusen 2007: 1.

zones in or directly adjacent to the Raganello valley were investigated, roughly between the village of Cività and the Timpone della Motta (fig. 6).⁵⁹ Finally, in 2009, a further campaign took place to complete the data of the finds and the site descriptions for the RAP surveys of 2000–2008.

A major Hellenistic site was discovered in 2004 at a location called ‘Portieri’ with a rich Hellenistic pottery record. This site, interpreted as a *fattoria* (a farmstead yielding surplus produce), was surveyed intensively and yielded a large collection of Hellenistic pottery, which we published separately.⁶⁰ In our discussion of the pottery record of Hellenistic sites from the GIA surveys, this ‘Portieri’ pottery catalogue functions as an important point of reference, as its ceramics could be dated quite closely and much of the material found at sites discussed in this paper corresponds to wares and forms found at Portieri.⁶¹

3. The selection of Hellenistic sites in the GIA survey dataset

In the surveys carried out by GIA teams, approximately 50 sites with a probable Hellenistic date and 10 areas with probable Hellenistic off-site material were

recorded.⁶² Most of these were detected in Transect I of the RAP survey study area (fig. 6). In all, about 7000 pieces of Hellenistic ceramics were collected.⁶³ These were classified following the classification scheme that was set up for the Hellenistic *fattoria* of Portieri.⁶⁴ This entails that ceramics, when possible, were assigned to one of four functional categories: amphora, black-gloss tableware, *ceramica comune* and building material.⁶⁵ Potsherds of black-gloss tableware and *ceramica comune* were further subdivided into functional classes proper to those wares (table 2).⁶⁶ As to assigning function to sites, it should be kept in mind that it is not by the simple presence or absence of particular types of pottery that a function can be attributed to a site.⁶⁷ Rather, it is in the proportions of different ceramic classes and form types that differences become apparent in the survey assemblages and hence in site function.⁶⁸ For this reason, all the ceramic classes of every Hellenistic site were counted and pie diagrams made, detailing the percentages of the ceramic classes present ().⁶⁹

As mentioned in the introduction, this paper focuses on a selection from the total body of Hellenistic sites found in the GIA surveys (fig. 7), which, on the basis of the quality of the pottery record, could be assigned relatively sharp precise date ranges, and which, as

59 Van Leusen 2008: 1.

60 Oome & Attema 2007/2008.

61 Oome & Attema 2007/2008: 619–631.

62 See note 1/ Van Leusen *et al.* in prep.

63 Including the ‘special’ finds of the intensive survey at site 46 (the other ceramics were only counted, not collected) and the diagnostic samples of site 112.

64 Oome & Attema 2007/2008: 619–631.

65 In other studies (Munzi 1999 and Russo 2006) distinction has been made between “tableware” and “kitchenware” irrespective of the presence of any black gloss, although according to Russo (2006: 148) the drinking and eating vessels were with black gloss and the serving vessels were achromatic, all belonging to tableware. Carter (2011: 129–130) however, makes a distinction between fine wares, plain/ banded wares, cooking/ storage wares and other ceramics. In the Croton survey (Carter & D’Annibale, 1993: 95–96), the ceramics were divided into the categories: black gloss, *ceramica comune da tavola* (tableware), *ceramica da cucina* (kitchenware) and amphorae as the most common types and categories at the 4th-century BC farmsteads.

66 The black-gloss fine wares are a primary source of ceramic evidence for the Classical and Hellenistic periods and were produced on a large scale from the early 5th century BC into the late Hellenistic period (Carter 2011: 169). Regional production of grey wares in Magna Graecia largely replaced that of Hellenistic black gloss in the 2nd century BC, though initially continuing many of the popular forms in black gloss of the Hellenistic period (Carter 2011: 177, note 67). Further, in the 2nd century BC the morphological repertoire of Metapontine black-gloss ware appears drastically reduced compared to the preceding period. Judging by the survey evidence, black-gloss ware does not occur in the Metapontine *chora* after 100 BC (Carter 2011: 181). Regarding the sub-functions, see also Munzi 1999: 94–96 and Russo 2006: 147–159.

67 This has been clearly demonstrated by Carter and his team in their research in the Metapontino (Carter 2011). Certain vessels should not be exclusively associated with particular contexts, as amphorae were also used as grave markers and cooking wares may be remains of tomb-side meals or offerings, and not per se as an indicator of domestic function (Carter 2011: 134, 136). Furthermore, in farmhouse assemblages the entire range of vessel types is found, including those more typical of sanctuaries, such as (votive) miniatures, *thymiateria* and *louteria* (Carter 2011: 137).

68 Carter 2011: 134.

69 Unfortunately it was not possible to make an extensive distinction of shapes as Carter (2011: 132, Fig. 5.2) did for the Metapontine Hellenistic ceramic survey finds, because the ceramics of the RAP surveys often were very worn or too small to ascribe them to a more precise form other than the categories that we have used for the graphics.

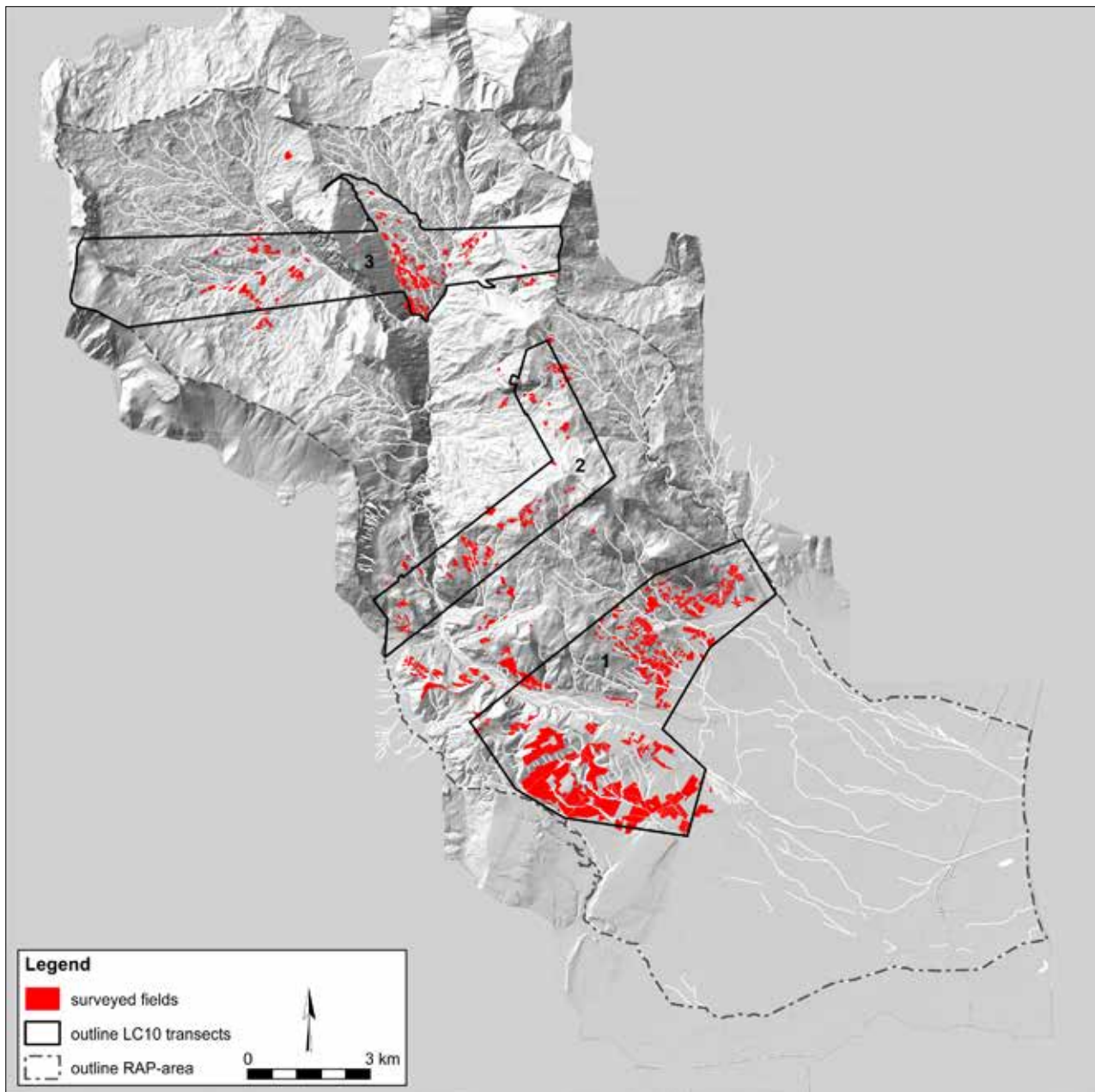


Fig. 6. Transect I-II-III study areas of RAP surveys (Lidar data collected by EUFAR in 2008, and reproduced here with permission of the K.U. Leuven). Drawing E. Bolhuis, Groningen Institute of Archaeology.

apparent from location, scatter size and functional pottery classes and types, might reveal functional aspects.⁷⁰ As to the first criterion (quality of the pottery record) we note that, while the general dating of the selected sites in the Hellenistic period for these sites too is based on the resemblance of ceramic fabrics to those of the

Portieri site, diagnostic fragments of well-defined wares and classes made it possible to date these selected sites more accurately (table 4). As to the second criterion (functional aspects), we selected only those sites of which site status was clear. In the study area, site-formation processes in many cases may result in very

⁷⁰ This is especially the case for the RAP surveys from 2000 until 2003. In 2004 the Portieri site was found and from this moment amphorae fragments have been mentioned in the database separately (in most cases), when distinguished. As far as the pottery is concerned, we found, for instance, that during the processing of the ceramics *amphora* fragments had not always been distinguished as a separate class. Instead, they had at times been assigned to either depurated or coarse ware subclasses of *ceramica comune*. For this reason we selected only sites for which a consistent classification of the pottery was available.

Table 2. Functional sub-categories of black-gloss and *ceramica comune* pottery (N. Oome).

Ceramic Category	Function	Form
Black Gloss	Drinking	Cup
		Bowl
		<i>Skyphos</i>
	Eating	Plate
		Small cup
	Blending	Crater
	Serving	Jug
<i>Ceramica Comune</i> depurated:	Serving	Lamp
		<i>Lekythos</i>
		Jug
		Basin/ Bowl
<i>Ceramica Comune</i> coarse ware:	Cooking	Mortar
		'Pelvis' basin
		'Olla'
	Storage	'Pentola'
		Casserole
		'Olla'
		<i>Pithos</i>

small, degraded sites or in very thin, extended artefact spreads that instead seem indicative of off-site distributions. Building on these two criteria, 14 sites were selected and analysed (fig. 7). The selected Hellenistic sites have been grouped according to specific landscape zones.

3.1 Discussion of the selection of Hellenistic sites

The sites we discuss below are located in different landscape units, the marine terraces between present-day Lauropoli and the western riverbank of the Raganello, the alluvial slopes of the Serra del Gufo at Contrada Damale to the west of the river Caldana, and finally, the inland valley called the Vallone del Castello which is connected to the river Raganello (fig. 7).

3.1.1 Sites between the river Raganello and Lauropoli

The first group of selected Hellenistic sites (20, 24, 28, 30 and 46) is situated on the marine terraces directly to the west of the Raganello river and to the northeast of present-day Lauropoli (fig. 8a). The data derive from the surveys of 2000 carried out by the RPC project.⁷¹ In 2010, an intensive artefact and geomagnetic survey was held at site 46 (i.e. Quilici site 130).⁷² Site 46 is strategically positioned on a marine cliff within this landscape unit.⁷³ Site 24 lies along a straight, steep slope on the northern side of the marine terraces overlooking the river Raganello. Sites 20 and 30 have other Hellenistic sites in their vicinity, and here we seem to be dealing with hamlets. Site 46 is composed of various small scatters interpreted as the remains of buildings, and therefore may also be classified as a hamlet. Here both Hellenistic and Roman materials were found.⁷⁴ Sites 24 and 28 probably were isolated farmsteads. All sites are located close to water sources, given the fact that a number of small streams, cutting across the marine cliffs, drain the area.⁷⁵ All sites are positioned along the *litoranea protostorica*, the coastal communication route as proposed by Quilici (see fig. 4).⁷⁶

In the ceramic composition of sites 20, 24, 28 and 30, the main ceramic class is depurated *ceramica comune*, together with some coarse *ceramica comune* (table 3).⁷⁷ Black-gloss ware appears only sporadically at these sites. At site 46 however, potsherds of all main ceramic categories are well represented, with a preponderance of black-gloss sherds which is due to the highly intensive on-site survey to which the site was subjected. Furthermore, this site functioned longer than most others, having continued into the Roman period.

3.1.2 Contrada Damale/ Portieri area

The second group of selected Hellenistic sites (103, 107 and 112) is situated in the Contrada Damale, on the alluvial slopes of the Serra del Gufo directly west of the river Caldana. This area includes the site of Portieri (112) (fig. 8b). Here surveys were held in 2004.⁷⁸ Site 103 was

⁷¹ Attema, Burgers & Van Leusen 2010. This area is included in Transect I of the RAP research area.

⁷² Van Leusen 2010: 3-4. See also forthcoming: Van Leusen & Oome 2018.

⁷³ See LC10 transect maps made by Rik Feiken (Feiken 2014: 66-68). See also Van Leusen & Feiken 2007.

⁷⁴ Van Leusen 2010: 3-4.

⁷⁵ See LC10 map of transect I (Feiken 2014: 66). Thanks to Don van den Biggelaar, for his help with the geomorphological information.

⁷⁶ De Rossi *et al.* 1969: 150-153.

⁷⁷ The following numbers of sherds were collected in the standard survey; site 20: 32 pieces, site 24: 50 pieces, site 28: 24 pieces, site 30: 80 pieces and site 46 only 13 pieces of off-site pottery. In the intensive survey at site 46 more than 18,000 pieces of pottery were counted. For information on the survey conditions we refer to the catalogue of sites and sherds of the RAP survey (Van Leusen *et al.* forthcoming).

⁷⁸ See also Oome & Attema 2007/2008. On the undulating slope to the northwest of the Portieri site (112) two other scatters (originally 113 and 114) with Hellenistic ceramics were found, but these were not defined as separate sites. However, their surface record is of interest.

Table 3. Pie diagrams of the ceramics of the selected sites (N. Oome).

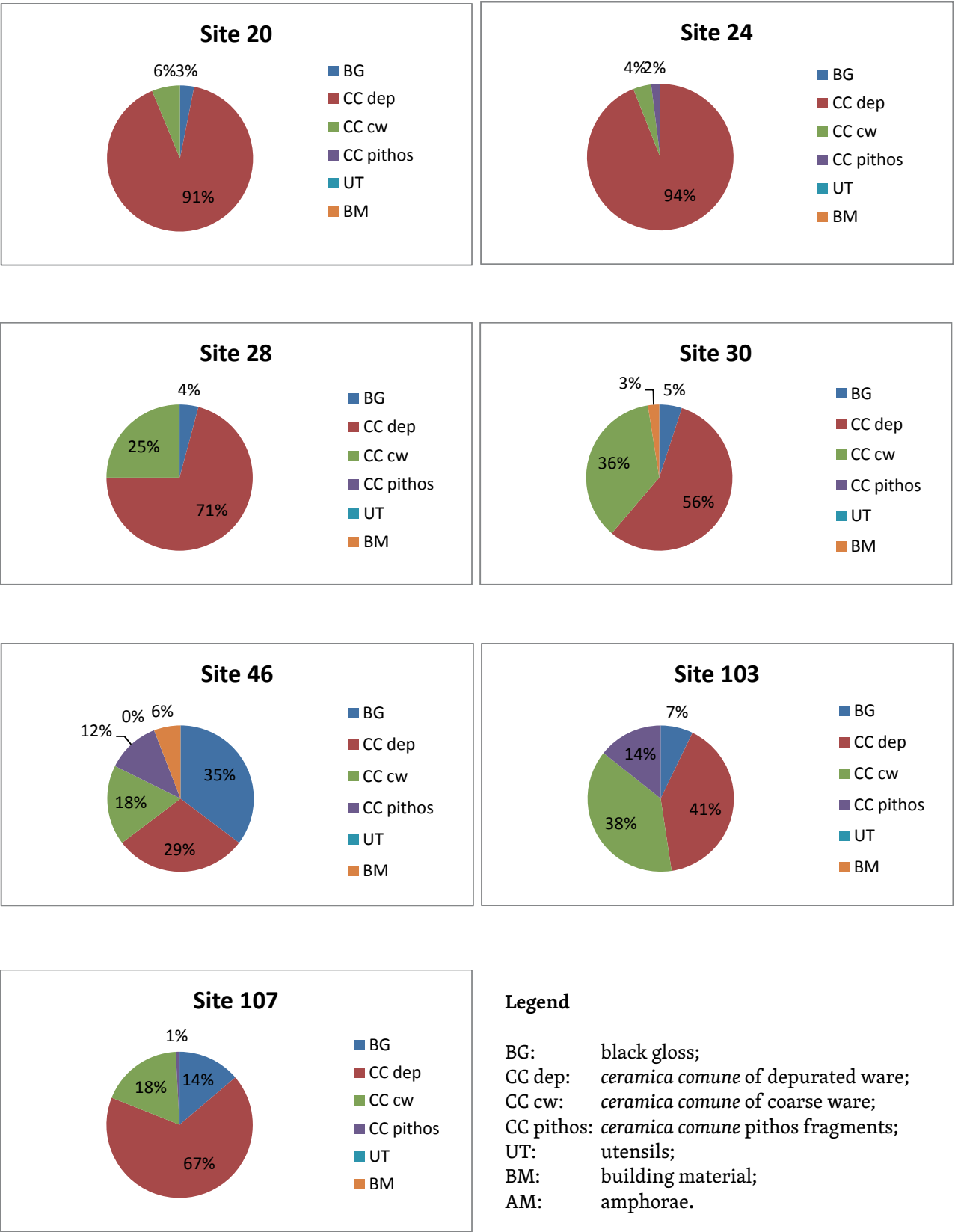
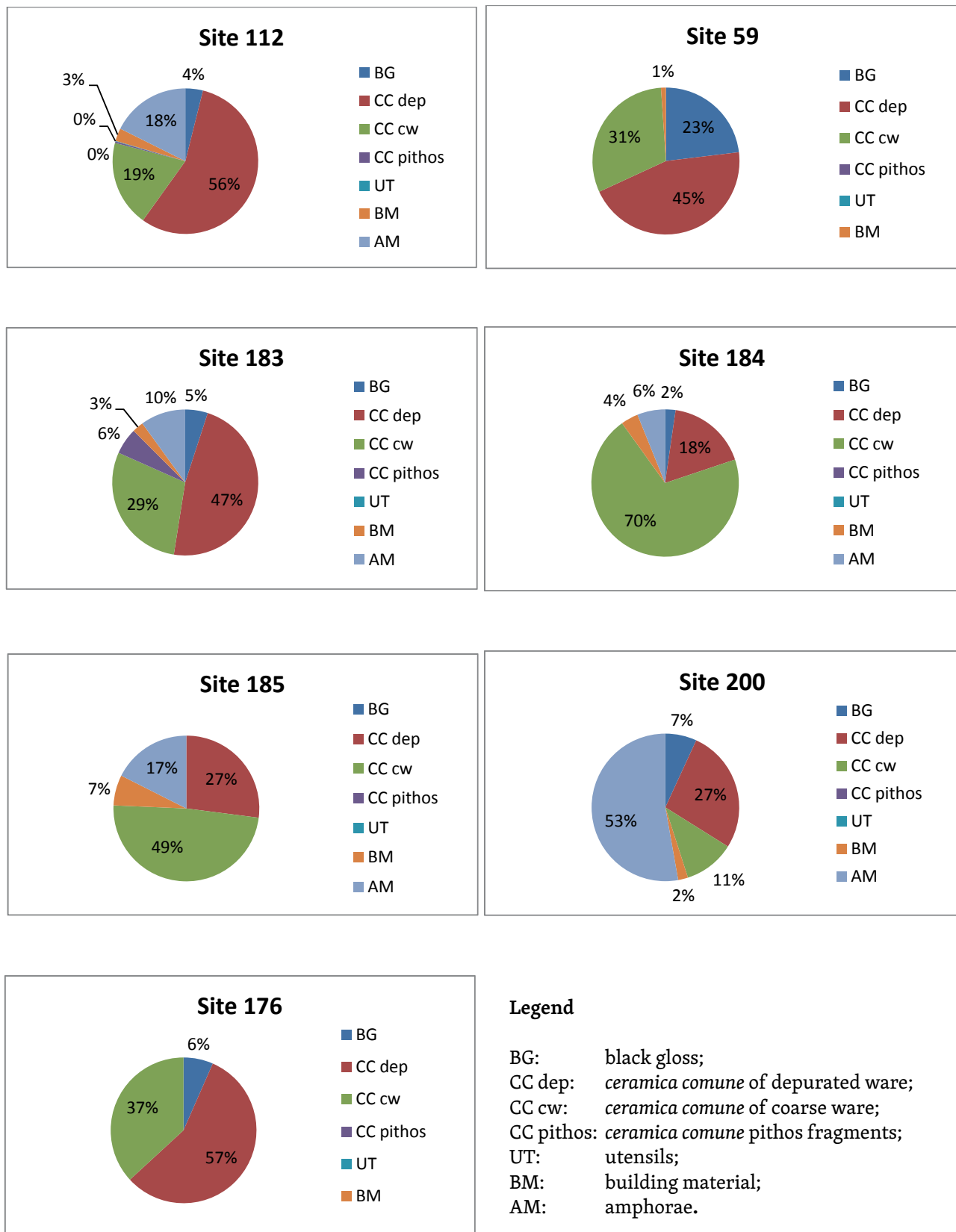


Table 3 (continued).



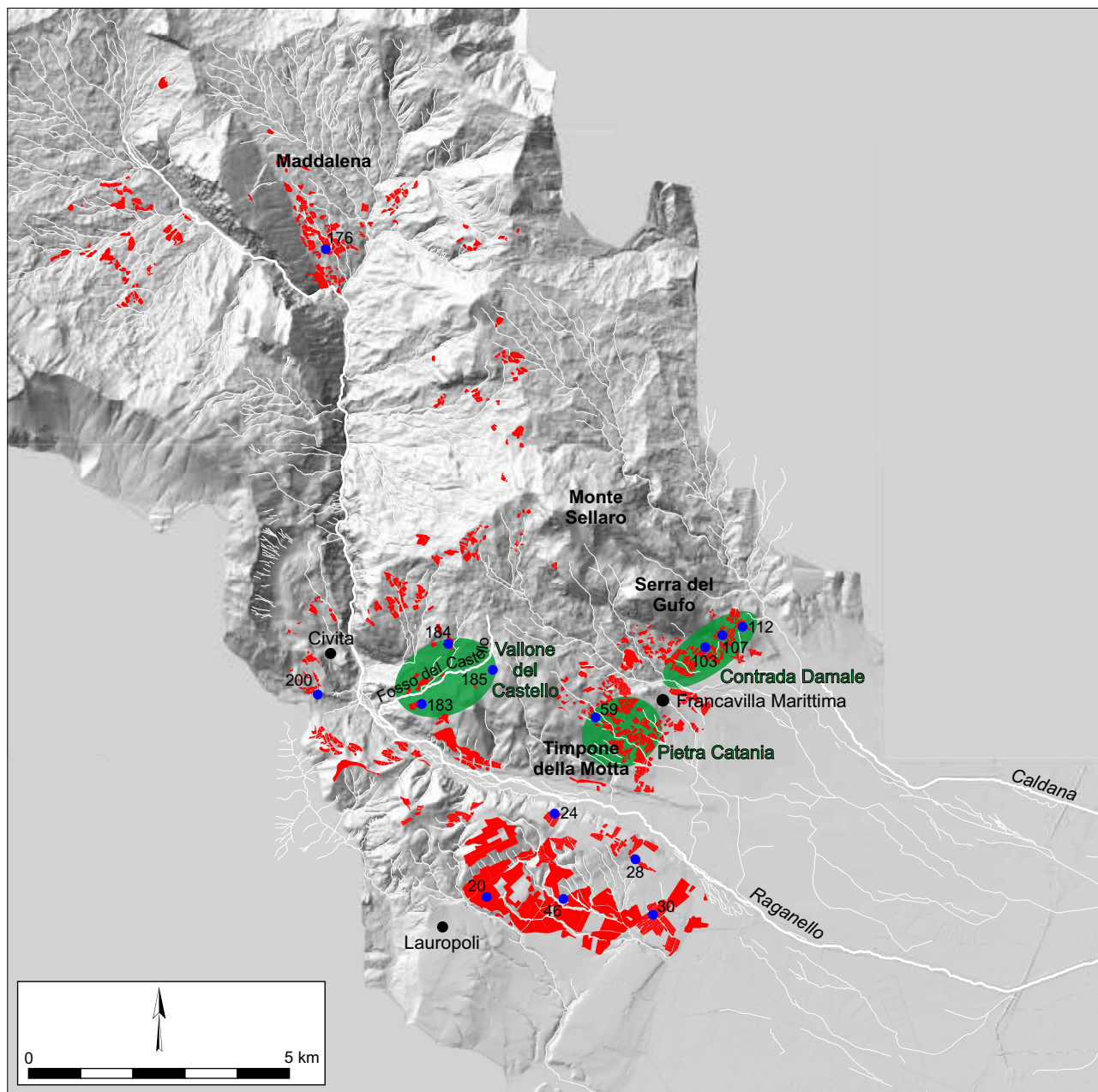


Fig. 7. Selected Hellenistic sites of the RAP surveys (Lidar data collected by EUFAR in 2008, and reproduced here with permission of the K.U. Leuven). Drawing E. Bolhuis, Groningen Institute of Archaeology.

found on an even slope, with a water source to the east.⁷⁹ Site 107 is situated in a flat area in an undulating landscape, with a water source on its southwest side.⁸⁰ The Portieri site (112) is located in a commanding position on a hilltop that is part of a small marine terrace, and has a water source to the southwest.⁸¹ These sites are

all protected to the northwest by the limestone mountain range of the Serra del Gufo, which culminates in the twin peaks of Monte Sellaro. The ceramic assemblages of sites 107 and 112 reflect the percentages of pottery classes found on the sites on the marine terraces, mentioned above, showing mainly depurated *ceramica*

⁷⁹ See LC10 map of Transect I (Feiken 2014: 66). Whether the find scatter 107 is *in situ* is doubtful, as it was located on a steep slope prone to erosion (Feiken 2014: 79); in reality the corresponding settlement may have been situated more to the east.

⁸⁰ See LC10 map of Transect I (Feiken 2014: 66).

⁸¹ See LC10 map of Transect I (Feiken 2014: 66).

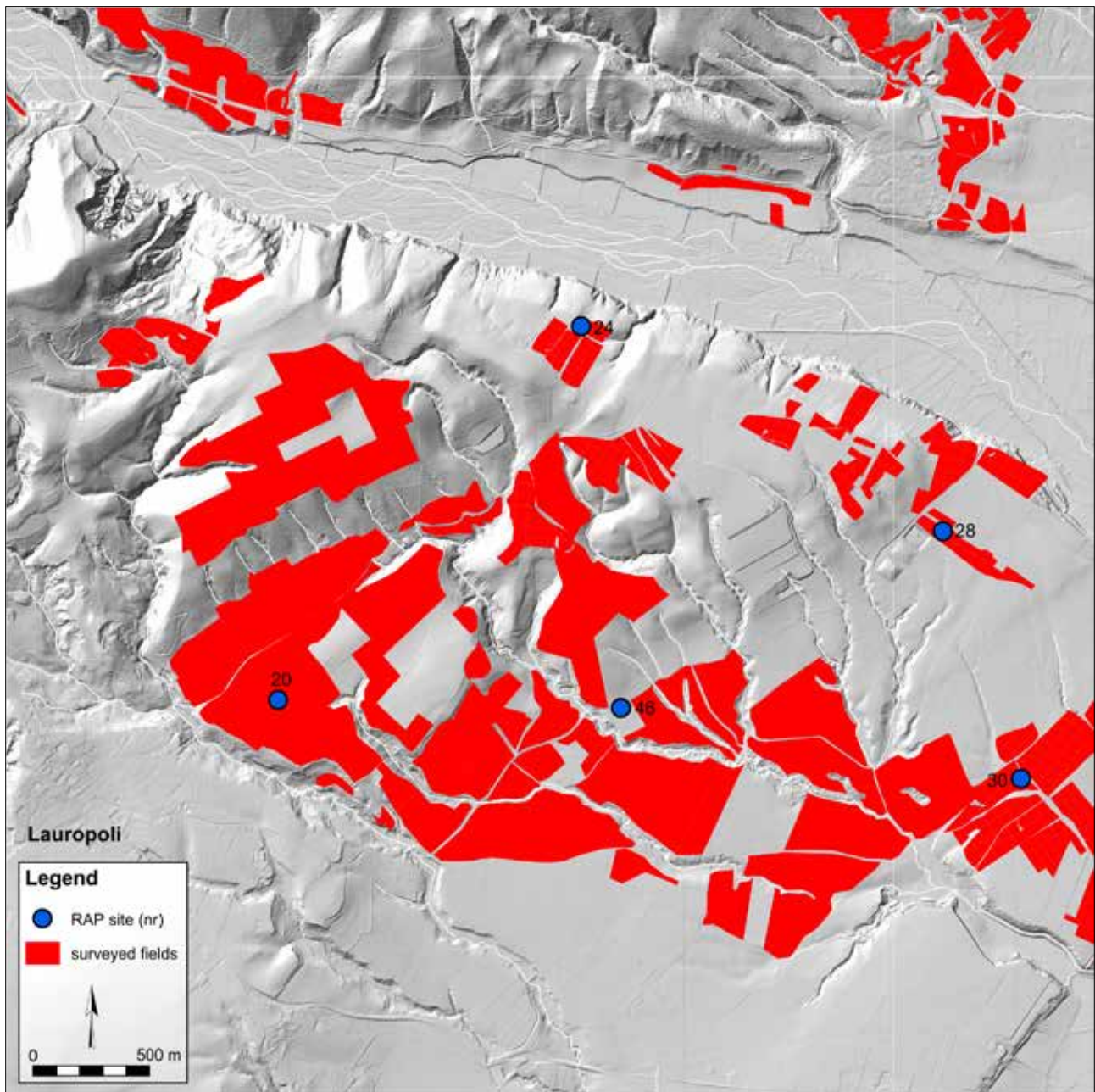


Fig. 8a. Sites between the river Raganello and Lauropoli (Lidar data collected by EUFAR in 2008, and reproduced here with permission of the K.U. Leuven). Drawing E. Bolhuis, Groningen Institute of Archaeology.

comune and only some coarse *ceramica comune* (table 3).⁸² Some black-gloss potsherds and a few *pithos* fragments were recorded. At site 103, by contrast, equal proportions of coarse *ceramica comune* and depurated *ceramica comune* were recorded apart from a few black-gloss potsherds and a few *pithos* fragments. Site 107 probably was an isolated farmstead. Site 103 may represent

an outbuilding related to site 80 because of the small amount of sherds found here and its close vicinity to the latter.⁸³

The Portieri *fattoria* (site 112) was located in a commanding position with a fine view across the Sibaritide plain – the territory of Thurii – and the sea, and for any surrounding rural sites this *fattoria* must have been a

82 In total the following numbers of sherds have been collected; at site 103: 43 pieces, site 107: 116 pieces and site 112: 887 pieces. The counts of the Portieri site (112) result from the standard survey method. Following detection of the site, many more diagnostic fragments were collected. (Van Leusen *et al.* in prep.)

83 Even during the survey, a possible connection between these site locations was noted. (Van Leusen *et al.* in prep.)

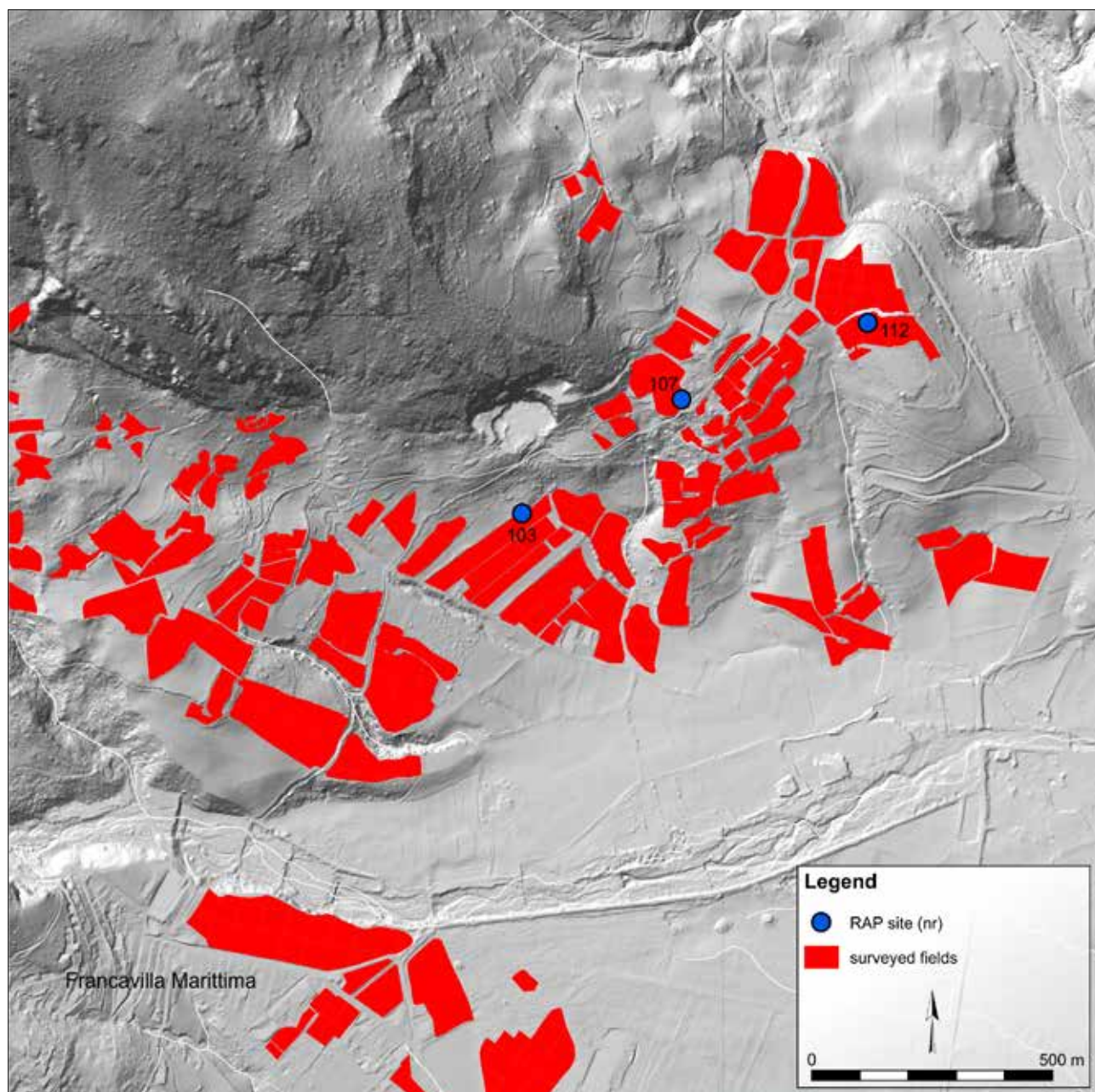


Fig. 8b. Sites at Contrada Damale/ in the Portieri area (Lidar data collected by EUFAR in 2008, and reproduced here with permission of the K.U. Leuven). Drawing E. Bolhuis, Groningen Institute of Archaeology.

landmark.⁸⁴ Moreover, the Portieri *fattoria* was located in the valley of the river Caldana river, an important inland communication route, near to the *litoranea protostorica* (fig. 4). It is believed that this site may have had an additional defensive function as a gateway from the hinterland to the plain and vice versa.⁸⁵ However, since at the Portieri *fattoria* many amphora fragments were

found, we assume that its primary function was wine production and distribution.⁸⁶

3.1.3 Vallone del Castello

The third and final group of selected Hellenistic sites (183, 184 and 185) is situated in the Vallone del Castello, which lies in the hinterland between Transects I and II of the RAP research area (fig. 8c). Here surveys took

⁸⁴ See also: Oome & Attema 2007/2008: 618, 631, 637.

⁸⁵ See also: Oome & Attema 2007/2008: 638, note 8, about the meaning of “Portieri”.

⁸⁶ Oome & Attema 2007/2008: 631, 638.

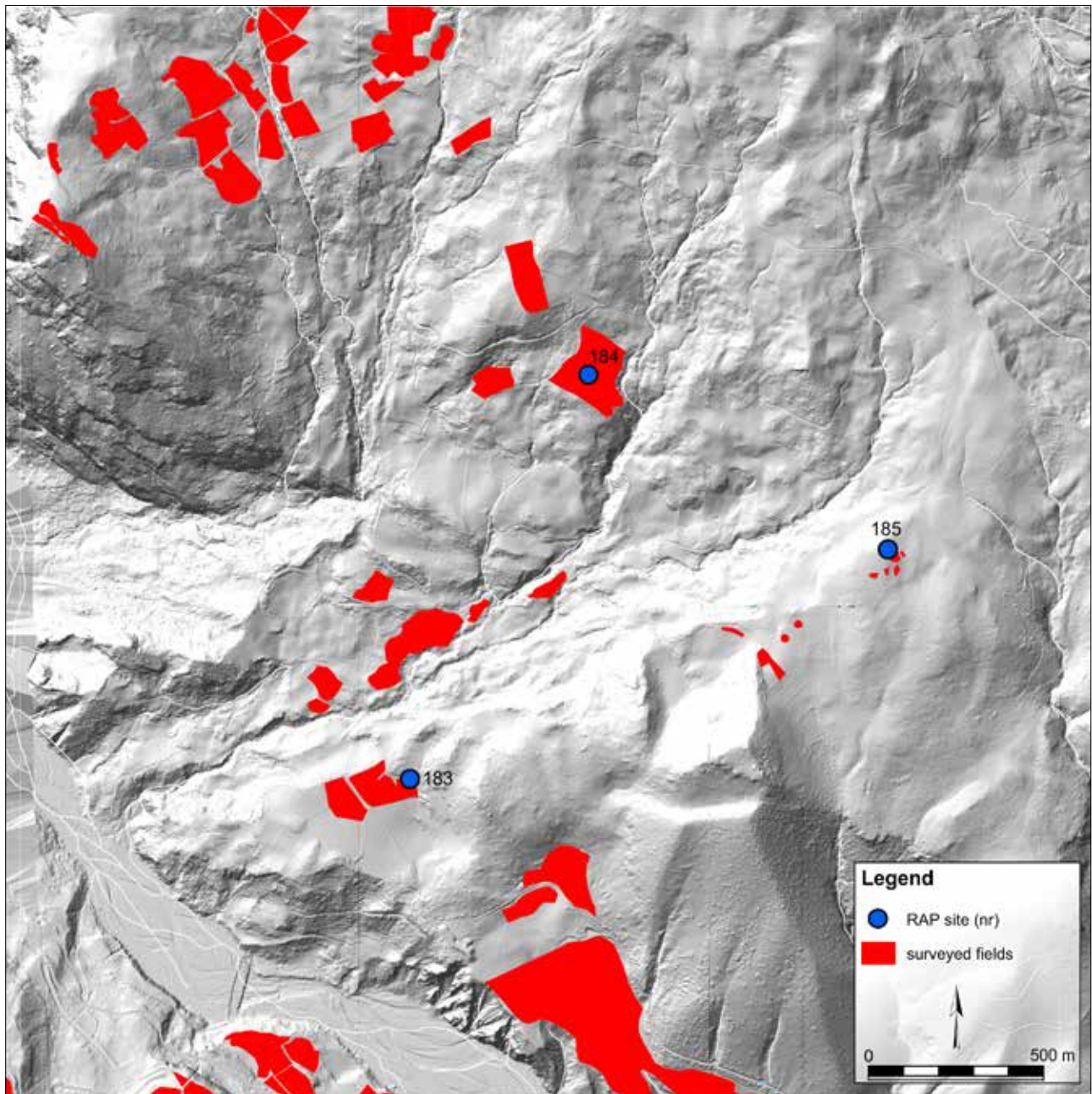


Fig. 8c. Sites at Vallone del Castello (Lidar data collected by EUFAR in 2008, and reproduced here with permission of the K.U. Leuven). Drawing E. Bolhuis, Groningen Institute of Archaeology.

place in 2007. This valley in the immediate hinterland of the plain of Sybaris is geologically characterized by weak rock, consisting of shales.⁸⁷ The area is drained by a system of seasonal streams, of which the Fossa del Castello is the most important.⁸⁸ In this valley, Hellenistic occupation appears to have continued at an only slightly lower density than in the previously

discussed areas.⁸⁹ The Fossa del Castello drains into the river Raganello. The latter was an important communication route, connecting the *litoranea protostorica* with the interior (fig. 4).

Site 183 again has mainly depurated *ceramica comune* and coarse *ceramica comune*, although almost all ceramic categories are present: a few *pithos* fragments, some

⁸⁷ Feiken 2014: 60–61.

⁸⁸ Van Leusen 2007: 1.

⁸⁹ Van Leusen 2007: 1. Albeit that survey indicated that protohistoric occupation became much less dense here.

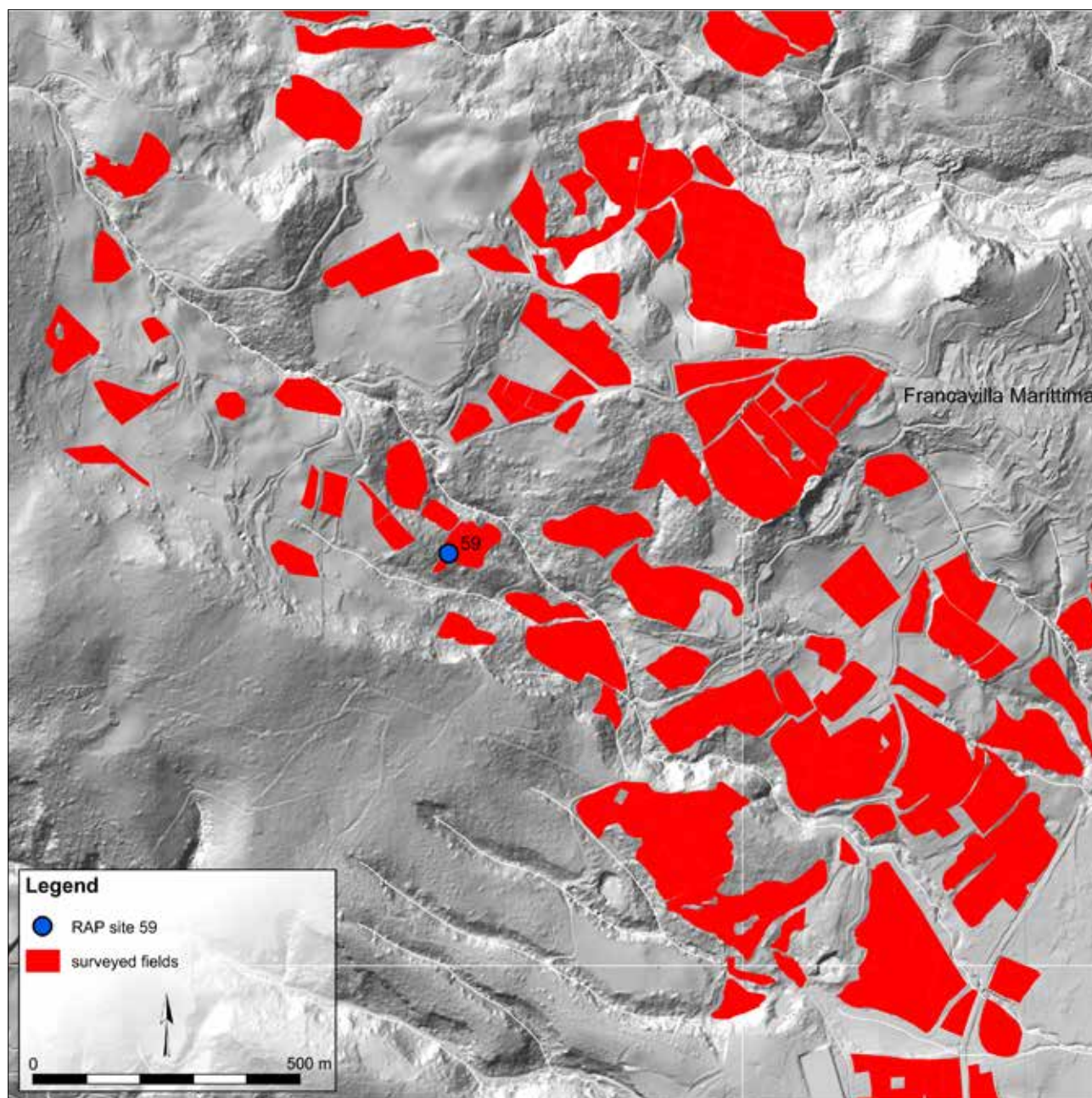


Fig. 8d. Site at Pietra Catania (Lidar data collected by EUFAR in 2008, and reproduced here with permission of the K.U. Leuven). Drawing E. Bolhuis, Groningen Institute of Archaeology.

black-gloss and amphora sherds, and a few tile fragments (table 3).⁹⁰ Notably, one piece of *terra sigillata* was detected. In the Hellenistic period this site probably was an independent farmstead. By contrast, site 184, which consists of three small scatters, yielded mostly coarse *ceramica comune* and less depurated *ceramica comune* potsherds. It has some amphora fragments, a few black-gloss sherds and some pieces of tile.

Site 185 comprises two finds concentrations and is situated close to Quilici site 163. At this site, coarse *ceramica comune* abounds, with a lesser presence of depurated *ceramica comune*. Only a few amphora and tile fragments were detected. Note the strikingly different ceramic proportions of these sites compared to all other sites, which contain more coarse than depurated *ceramica comune*. Nonetheless, we believe these sites to

⁹⁰ In total the following numbers of sherds were collected in this area; at site 183: 120 pieces, site 184: 131 pieces and site 185: 74 pieces. (Van Leusen *et al.* in prep.).

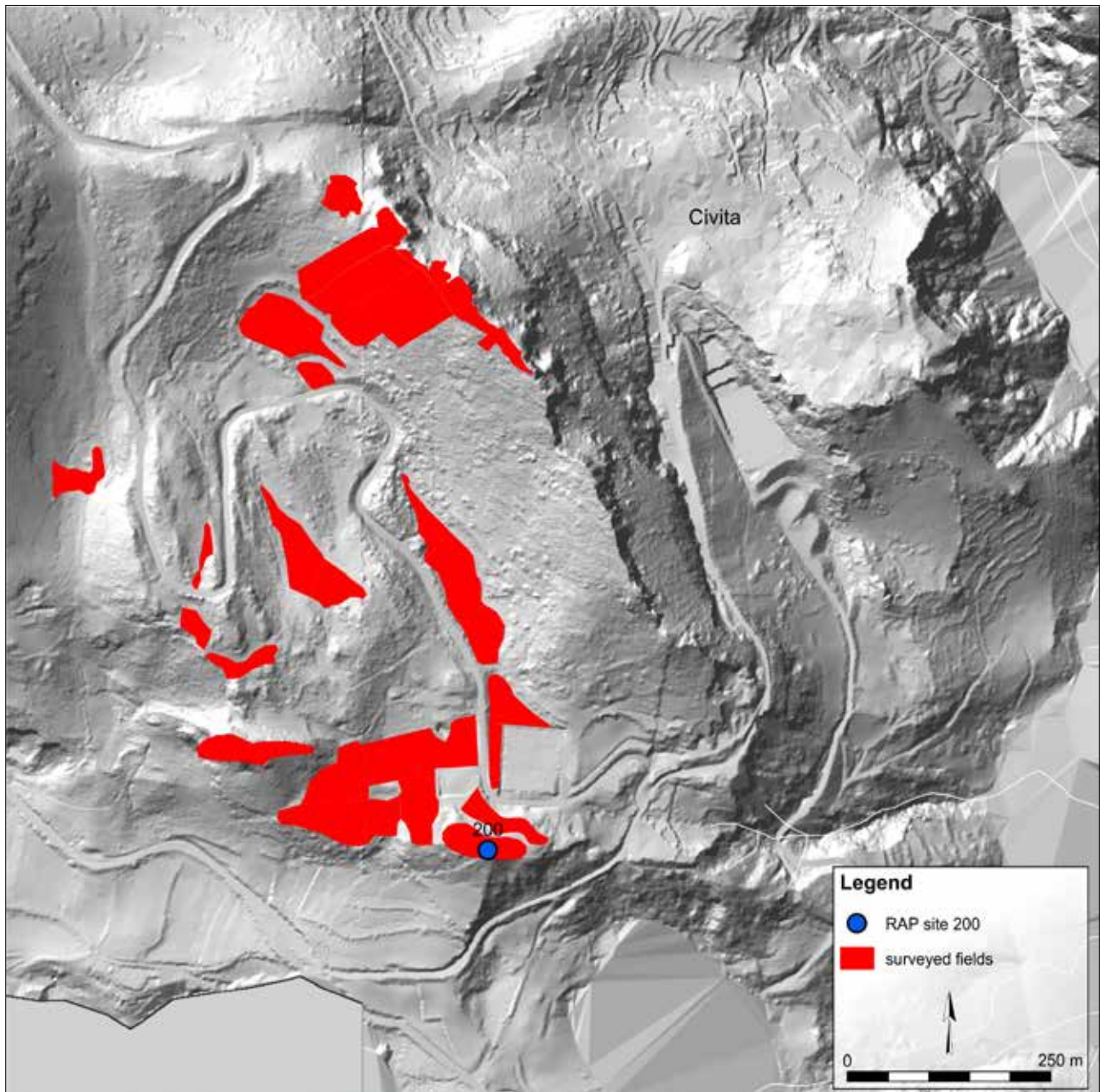


Fig. 8e. The hilltop site near Civita (Lidar data collected by EUFAR in 2008, and reproduced here with permission of the K.U. Leuven). Drawing E. Bolhuis, Groningen Institute of Archaeology.

have functioned as independent farmsteads in the hinterland of the Sibaritide.

3.1.4 Pietra Catania (between Timpone della Motta and Francavilla Marittima)

From the sites found in this area, we selected only site 59 (see fig. 8d), as this is the only site where amphora fragments were detected. The finds at this site stem from a freshly ploughed-up strip of land along the top of a field

on an undulating slope, where the plough presumably had touched the core of the site. To either side of the site are water sources.⁹¹ The ceramic assemblage consists foremost of depurated *ceramica comune* and to a lesser degree of coarse *ceramica comune* (table 3).⁹² However, also quite a few black-gloss fragments and one piece of tile were collected. Most probably we are dealing with an isolated, independent farmstead, situated not too far from the coastal communication route.

⁹¹ Feiken 2014: 66.

⁹² In total the following number of sherds were collected at site 59: 91 pieces. (Van Leusen *et al.* in prep.)

3.1.5 The hilltop near Cività

Site 200 was found during the 2008 survey in Transect II, on the southwestern side of the river Raganello and close to the town of Cività (fig. 8e). The site is situated on a small limestone hilltop with a water source nearby.⁹³ The finds were recovered along a low terrace wall.

The best-represented ceramic category is the amphora, followed by depurated *ceramica comune*, coarse-ware *ceramica comune*, black-gloss ware and a few tile fragments (table 3).⁹⁴ The preponderance of amphorae is remarkable; at no other site do amphora sherds form the largest ceramic category. The hilltop offers a good view of the surroundings. To the east lies the river Raganello – its valley serving as a communication route with the coastal plain – and even the sea can be seen. In the west, the plain of Castrovillari is visible. The site is situated beside a major communication route (*grande asse preistorico materano*) (fig. 4).

3.1.6 Maddalena

Site 176 was found in the upper Transect IIb, in the area “Fonte di Maddalena” (fig. 8f). It is situated on a small terrace on an undulating slope, close to water sources.⁹⁵ Also at this upland site, mainly depurated *ceramica comune* was found (table 3), with a lesser amount of coarse *ceramica comune*.⁹⁶ Only a few black-gloss fragments were collected. In its surroundings no other Hellenistic site was detected, and therefore the location of this site seems to have been rather isolated, even though located close to the source of the river Raganello. Interestingly, we have much more evidence for proto-historic than for Hellenistic sites in this upland area.⁹⁷

3.2 Chronology and function of the selected sites based on the pottery record

None of the sites discussed above yielded the typical powdery fabric of the 6th-century Archaic period (as found in the surveys of Plateau I of the Timpone della Motta), or any typical forms proper to that period, while the well-datable 5th-century fine wares, or other

depurated- or coarse-ware forms from that period are absent.⁹⁸

Regarding the amphorae, these were frequently found during the RAP surveys and were recognised mainly as Vandermersch’ MGS III and IV amphora types, of which Thurii probably was one of the production sites.⁹⁹ The MGS III type can be dated from the late 5th century until 330/310 BC, while the MGS IV amphorae date from the entire 4th and early 3rd century BC.¹⁰⁰ Thus, the MGS III amphorae provide a potential starting date of some of our rural sites in the late 5th century BC. However, the fine wares found during the RAP surveys, the typical black-gloss tableware and kitchen ware (*ceramica comune*) (table 2) can usually be dated to the late 4th and 3rd centuries BC (table 4).¹⁰¹ So, reasoning from the higher resolution dating of Hellenistic fine wares and dateable depurated and coarse ware forms, we may suggest that most of our sites started in the advanced 4th century BC and consequently that rural infill in our study area did not really take off until well after the foundation of Thurii.¹⁰²

Rural sites founded in the Hellenistic period went on to consolidate their presence in the foothills during the following later 4th and 3rd centuries BC, but the pattern had already thinned by the 2nd century BC. From our selection, only five sites (35, 77, 46, 183 and 220) yielded not only Hellenistic but also Roman material (*terra sigillata* at sites 46, 183 and 220 and African red-slip ware at sites 77, 35 and 46). Without excavation, it is difficult to establish whether sites also producing Roman material continued uninterrupted into the Roman period; but given the available evidence (*viz.* fine wares dating to the Augustan (27 BC – AD 14) period), the Late Republican phase (2nd – 1st c. BC) does not seem to be represented, and Hellenistic sites may have been resettled only in Augustan and later times, following initial abandonment. Two sites with exclusively Roman materials were newly founded, of which site 36 can be dated to the mid-1st century AD (in the Early Imperial period).¹⁰³ Site 40 contains depurated ware dated to the 2nd and 1st centuries BC (Late Republican phase) and

93 Feiken 2014: 67.

94 In total the following number of sherds were collected at site 200: 233 pieces. (See Van Leusen *et al.* in prep.)

95 Feiken 2014: 68, 79.

96 In total the following number of sherds were collected at site 176: 152 pieces. (Van Leusen *et al.* in prep.)

97 For studies on La Maddalena: Ippolito 2016 and De Neef 2016.

98 Attema, Delvigne, Drost & Kleibrink 1997/1998.

99 Oome & Attema 2007/2008: 623. Vandermersch 1994: 72. See the full catalogue of sites and sherds of RAP surveys.

100 Vandermersch 1994: 72, 76.

101 These are abundantly present at the Portieri site: see catalogue of sites and sherds of the RAP surveys (Van Leusen *et al.* in prep.).

102 Some of the parallels for our pottery are dated as early as ca. 350 BC, as at the Portieri site. This could indicate that sites were founded even at the end of the Classical Period. Probably they were the first (Hellenistic) sites in the foothills.

103 Van Leusen *et al.* in prep.

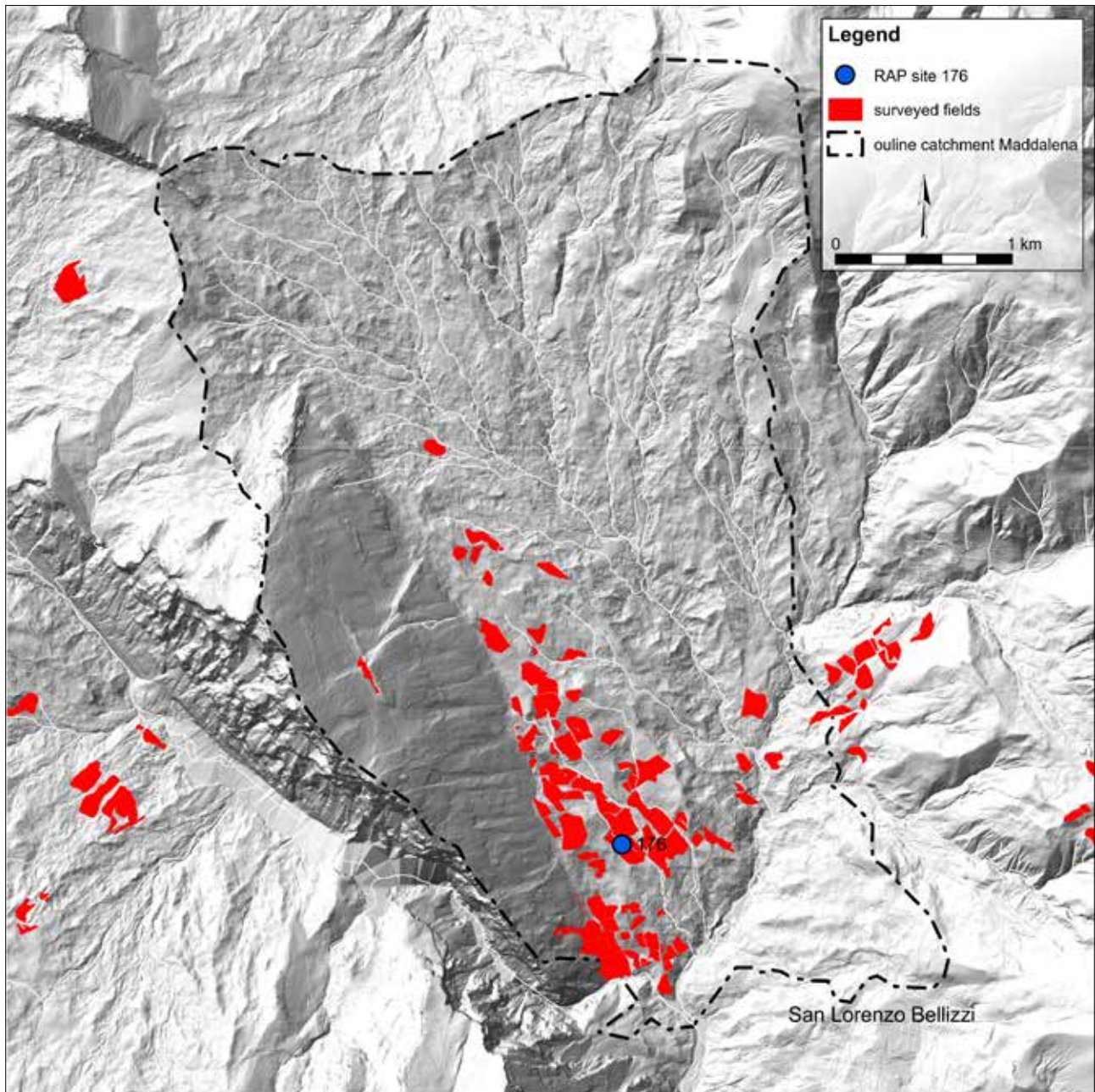


Fig. 8f. Site in the Maddalena area (Lidar data collected by EUFAR in 2008, and reproduced here with permission of the K.U. Leuven). Drawing E. Bolhuis, Groningen Institute of Archaeology.

amphorae of the 2nd century BC, in the period when Thurii was becoming the Roman colony of Copiae.

On the basis of the ceramic assemblage (table 2), we propose a predominantly agricultural function for the selected sites. The ceramic repertoire for the larger part consists of basic functional pottery: transport and storage vessels, kitchenware, utensils and tableware. Mainly amphorae of the above-mentioned

MGS III type occur, but also MGS IV amphorae were found.¹⁰⁴ Both these amphora types may be functionally related to the storage and transportation of wine.¹⁰⁵ Further, storage vessels comprise (much larger) *pithoi* of a coarse orange fabric, which were used both for solid food (grain and legumes) and for liquids (water, oil and wine).¹⁰⁶ Kitchenware comprises wide “pelvis” basins, regular basins, mortars, cooking pots, bowls and

¹⁰⁴ Van Leusen *et al.* in prep.

¹⁰⁵ Vandermersch 1994: 72.

¹⁰⁶ Russo 2006: 158.

Table 4. Dated ceramics from selected sites (N. Oome).

Site	Ceramic Category	Ceramic Form and Type	Date (by ceramic parallels)
Site 20	CC cw	rim of basin	late 4th – early 3rd c. BC
Site 24	CC dep	rim of jug	late 4th – early 3rd c. BC
Site 28			no diagnostics
Site 30	BG	rim of bowl	3rd c. BC
Site 46	CC dep	rim of bowl	late 4th – early 3rd c. BC
//	UT	loomweight	Hellenistic
Site 103	CC dep	base of bowl	4th – 3rd c. BC
Site 107			no dated diagnostics
Site 112 Portieri			ca. 350 – 250 BC see Portieri Catalogue
Site 183	AM	rim	late 5th – early 3rd c. BC
//	CC dep	rim of jug	late 4th – early 3rd c. BC
//	CC dep	base of jug	late 4th – early 3rd c. BC
//	CC cw	rim of basin	4th c. BC
//	CC cw	base of bowl	4th – 3rd c. BC
//	CC cw	knob of lid	late 4th – early 3rd c. BC
Site 184	AM	rim with handle	late 5th c. – 330/310 BC
//	AM	rim	late 5th – early 3rd c. BC
//	AM	handle	late 5th – early 3rd c. BC
//	BG	base of bowl	late 4th – early 3rd c. BC
//	BG	rim of <i>lekythos</i>	350/325 – 250 BC
//	CC cw	rim of bowl	late 4th – early 3rd c. BC
//	CC cw	base of jug	350 – 200 BC
//	CC cw	base of cooking pot	late 4th – early 3rd c. BC
Site 185	CC cw	rim of jug	325 – 250 BC
//	CC cw	2 bases of cooking pots	late 4th – early 3rd c. BC
Site 59			no dated diagnostics (yet)
Site 200	AM	rim	late 5th – early 3rd c. BC
//	AM	2 rims	late 5th c. – 330/310 BC
//	AM	3 handles	late 5th – early 3rd c. BC
//	BG	rim of bowl	3rd c. BC
//	BG	3 handles of <i>skyphos</i>	4th – 3rd c. BC
//	BG	base of jug	4th c. BC
//	CC	rim of jug	350 – 200 BC
//	CC	rim of jug	350 – 250 BC
Site 176	AM	rim	late 5th – early 3rd c. BC
//	AM	handle	late 5th – early 3rd c. BC
//	BG	rim of plate	325 – 300 BC
//	BG	base of <i>kylix</i> bowl	325 – 250 BC
//	CC cw	base of jug	Hellenistic
//	CC cw	base of cooking pot	Hellenistic

jugs of coarse and depurated *ceramica comune*, which were used for the preparation and storage of food and drinks.¹⁰⁷ However, some of the unpainted depurated wares, such as jugs and bowls, might also be put on the table.¹⁰⁸ Loomweights are present at site 46 and comparable items have been found at twelve other RAP sites.¹⁰⁹ They are all of the pyramidal shape typical of the Hellenistic period.¹¹⁰ Pieces of black-gloss lamps have been found only at sites 46 and 112. Finally, we have good evidence for tableware at most sites, such as cups, bowls, *skyphoi*, plates, craters and jugs in black-gloss or plain ware, indicating consumption of various types of food and wine (*skyphoi*) in these households.¹¹¹

The combination of functional classes is typical of the Hellenistic rural households in our survey area between the 4th and 3rd century BC. Linking the pottery range to site size and relative numbers of amphorae, we may tentatively suggest a differentiation among sites in terms of their role in the local economy.

Most Hellenistic sites in our survey are relatively small scatters, indicative of nuclear, rural households. Examples from the selected sites are site 24, 28 and 59. These sites do not appear to be particularly rich and use the standard repertoire for storage, cooking and food consumption. We propose that these sites functioned as independent farmsteads. The near-absence of tiles suggests that the roofs were covered with straw, although tiles would have been reused elsewhere. Some very small scatters may relate to outbuildings or possibly (family) burial grounds and/or isolated tombs.¹¹² At the other end of the scale are the large scatters with essentially the same range, but more diversified and especially featuring more amphora sherds. Within our selection the Hellenistic Portieri site, represented in the surface record as a scatter of approximately 50 x 50 m qualifies as a *fattoria*, a farm producing and distributing probably wine. Also for Site 200 we propose specialized production, on account of the abundant presence of amphora sherds of type MGS III. Apart from isolated rural sites, whether farmsteads or *fattorie*, there is evidence of clusters of rural sites forming villages or hamlets, in the way that sites 20 and 30 seem to be part of a hamlet.¹¹³ In the selection of sites discussed in this

paper, sites 46, 184 and 185 qualify as agglomerations of a number of individual rural sites. So far, we have no clear indications for sites other than rural households, such as small sanctuaries, cemeteries or pottery kilns.

On the basis of the selected sites we conclude that rural settlement in our study area did not take off before the second half of the 4th century BC, consolidated over the end of the 4th and 3rd centuries BC and diminished around the 2nd century BC. Possibly after a gap following the Late Republican phase (2nd and 1st c. BC) there was a revival in the Early Imperial period (1st – mid 2nd c. AD) when there is some evidence in the form of *terra sigillata* and African red-slip ware. Scatters with “site” status mainly represent rural nuclear households that produced at subsistence level. These farms must have yielded some surplus produce and/or labour, as they had access to commercially produced pottery. Agglomerations of rural households occur, as indeed previously indicated by the Italian survey team. At the top of the rural hierarchy were the production farms or ‘*fattorie*’, sturdy buildings in dominant locations, which specialized in – probably – wine production. The latter we may deduce from the relatively high numbers of amphora fragments of types MGS III and IV in the ceramic record.

Finally we note that, although we find Hellenistic sites scattered over all landscape zones discussed in section 3.1, Hellenistic settlement was denser along the foothills bordering the Sibaritide than in the inland valley of the Raganello, where Hellenistic sites are only sparsely found. This is corroborated by the dense off-site distribution of Hellenistic potsherds in the foothills.¹¹⁴

4. The wider landscape archaeological context

4.1 The Sibaritide

The characterization of the Hellenistic rural landscape as appears from our study area, and in particular from the selection of sites found in the various landscape contexts discussed, can be extrapolated to the wider landscape of the Sibaritide, using previous research done in the region, as discussed in Section 2. The best data come from the inventory of archaeological sites by the

107 Oome & Attema 2007/2008: 628–631. See also Russo 2006: 157–159.

108 Oome & Attema 2007/2008: 628.

109 Among the selected sites, only site 46 revealed weaving utensils. See also Van Leusen *et al.* in prep. for the other sites with weaving utensils: sites 12, 19, 29, 34, 37, 38, 46, 64, 86, 171, 187 and 220.

110 Gualtieri & Fracchia 1990: 292–294.

111 Oome & Attema 2007/2008: 623–628. See also Russo 2006: 153–155.

112 Site 103 was thought to be an outbuilding of site 80 because of its location, although the assemblage numbered more potsherds than the nuclear rural households mentioned above.

113 See van Leusen *et al.* in prep.

114 See Van Leusen & Attema 2001/2002.

Italian team carried out in the 1960s, as this covers all of the Sibaritide (fig. 4). Like our data, this inventory too shows a preponderance of rural sites in the foothills bordering the plain of Sybaris. However, the sites reported have only very general dating attached to them, as most of them are assigned very generally to the Hellenistic-Roman period. On the basis of our admittedly limited but well-dated dataset, we assume that most of the sites recorded in the 1960s as “Hellenistic-Roman” probably date to the Early Hellenistic period, more precisely from the late 4th and the 3rd century BC, and that only a minority of sites date also – or exclusively – to the Roman or later periods. The scarcity of ceramics from our extensive surveys that can be securely dated to the Roman period corroborates this observation.

On the basis of dated potsherds from the augerings carried out in the 1960s in the plain, we suggest that parts of the plain were dedicated to rural land-use. We may assume that, like Hellenistic settlement in comparable coastal plains in southern Italy¹¹⁵, the rural pattern in the foothills was a continuation of the pattern of rural sites in the plain, to which it would have been connected by the road network (fig. 4).

The site classification in our survey area of single farmsteads, *fattorie* and agglomerations of rural households forming hamlets or small villages tallies with the Italian team’s interpretation of the wider pattern in the Sibaritide, as consisting of a rural settlement hierarchy of single farmsteads and villages. In both our survey and that of the Italian team, any identification of other elements integral to a developed rural landscape, such as sanctuaries, burial grounds, pottery kilns, has unfortunately not been possible.

Founded in the mid-5th century BC, Thurii rapidly stood at the top of the rural settlement hierarchy, functioning as a central place for the plain of Sybaris and its adjacent uplands. Thurii being a maritime hub on

account of its harbour, it is likely that agricultural surplus ended up there for the local market and for trading with other cities.¹¹⁶ The fact that we are dealing with many new rural foundations implies a close relationship between rural investment and urban development. According to Mollo, numerous agricultural settlements in the Hellenistic period in the Sibaritide will have belonged to citizens of Thurii, especially in view of the proximity of the city of Thurii.¹¹⁷

It is generally thought that forts defended the inland limits of the Hellenistic *chorai* of southern Italy. Cerchiai notes that it was common for colonies to possess defensive fortifications built on strategic heights along the *chora*’s boundary towards the interior. They were needed to control access to the plain and to defend the productive territories of plain and foothills that in the course of the 4th and 3rd centuries BC had become dotted with farms.¹¹⁸

4.2 The Sibaritide compared to neighbouring South Italian coastal landscapes

The larger part of the farmhouses on Brettian as well as on Lucanian territory, as in the Sibaritide occur as small isolated scatters, interpreted as rural households, located close to a city or *oppidum*.¹¹⁹ Farmhouses are normally built to a rectangular plan with two or three rooms side by side, and storage space for agricultural produce.¹²⁰ In general these farmhouses measured no more than 100 square metres and belonged to families of medium social standing.¹²¹

However, during excavations in the Val d’Agri, transformations in the construction of houses have been brought to light.¹²² In the 4th and 3rd centuries BC, in some cases housing became more luxurious, with rooms arranged around a central court.¹²³ Furthermore, some habitations appear to have been fortified with walls and towers, as at Montegiordano.¹²⁴ These forts occupied strategic locations at intervals of just a few kilometres,

¹¹⁵ Carter & D’Annibale 1993; Carter & Prieto 2011; Mollo 2003; Yntema 1993.

¹¹⁶ During the RAP surveys only one amphora with a particular palm-leaf stamp on its handle has been found at the Portieri site, although no ceramic parallels have been found for this stamp. See the catalogue of sites and sherds of the RAP surveys (Van Leusen *et al.* in prep.).

¹¹⁷ Mollo 2002: 213. However, Mollo (2002: 209) also states that if one wants to read more profoundly the indigenous people of Hellenistic times in Calabria, it is necessary to analyse in particular the individually identifiable territories across the Calabrian region.

¹¹⁸ Cerchiai 2002: 121.

¹¹⁹ Mollo 2003: 155. This author points out the intensive occupation of the land directly around *oppida* and cities, for the agricultural exploitation of the territory. In contrast to cities, *oppida* had proto-urban features, which means that there were dedicated spaces within the town walls where people living in the vicinity, together with their livestock, could find refuge in turbulent times (Taliano Grasso 2000: 121).

¹²⁰ Mollo 2003: 155.

¹²¹ Russo 2006: 169.

¹²² Russo 2006: 169.

¹²³ Russo 2006: 169–174.

¹²⁴ Mollo 2003: 155. Oome & Attema 2007/2008: 631–632.

watching over and protecting the productive land.¹²⁵ Together they made up a territorial defence system. This is the case along the Ionian coast from Thurii up to Kroton, territory attributed to the Brettii.¹²⁶ Here the forts are part of an intercommunicating system controlling access from and to the hinterland.¹²⁷ These fortified hilltop habitations were connected to other minor habitations in the vicinity.¹²⁸

In addition, these authors also recognize dispersed nuclei of habitations in the archaeological record, although not formalized in any urban organization like cities or *oppida*.¹²⁹ At the bottom of the hierarchy were the single farmsteads, positioned mainly along rivers, on the banks of creeks or on the marine terraces, overlooking the coast but at a safe distance from it.¹³⁰ Many of these rural dwellings were located along transhumance routes, having a functional relationship with the exploitation of upland summer pastures and winter pastures in the plain.¹³¹ In the surveys of the Sibaritide uplands, Hellenistic farms too were positioned along transhumance routes.

We may here conclude by observing that the Hellenistic settled landscape of the Sibaritide in many ways will have resembled that of nearby coastal landscapes, even if we are unable to grasp the full diversity in rural site types owing to insufficient data. Since the Italian archaeologists Mollo and Taliano Grasso in their respective research areas in the Tyrrhenian coastal strip to the west of the Sibaritide (from Belvedere Marittimo to Fuscaldo¹³²) and in Sila Greca to the south of the Sibaritide (from Rossano to Cariati and inland Longobucco¹³³) were able to distinguish farmhouses, burials, sanctuaries and craft contexts, this range of functions must be present in the rural pattern in the Sibaritide as well. Notably though, traces of sanctuaries or craft contexts are lacking in the archaeological data also in Mollo's research area along the Tyrrhenian coast.¹³⁴ In such instances, more research is needed at the site and pottery levels, but it is doubtful whether we can easily achieve the analytical detail that has proven

possible for instance in the case of the dataset that Carter and his team compiled for the Metapontino, in Basilicata, north of the Sibaritide.¹³⁵ This would require years of additional survey and pottery analysis.

5. Hellenistic rural settlement of the Sibaritide in its geopolitical context (5th - 1st c. BC)

In this final section before the conclusions, we sketch the geopolitical background against which the rural patterns we have described developed. As is well known, the historical Greek colonisation of the Sibaritide started at the end of the 8th century BC (720/710 BC), resulting in the foundation of the Archaic city of Sybaris at the mouth of the river Crati. This must have been accompanied by the agricultural exploitation of at least part of the surrounding plain, in order to sustain the rapidly growing city. While we cannot be sure, on account of the heavy alluvial sedimentation, that this also resulted in rural infill in the plain in the form of farmsteads and villages, it is quite certain that it did not spark rural infill in the foothills and uplands of the Sibaritide. The Archaic houses excavated on the Timpone della Motta are an example of what farmsteads of this period will have looked like, but in our study area none of these have so far been encountered in the surface record, apart from the Timpone itself.

The agricultural development in the *chora* immediately around Archaic Sybaris, whatever form this may have had, must at the end of the 6th century BC have come to a halt, when, as a result of competition among the *poleis* of Magna Graecia, Sybaris was destroyed by its southern neighbour Kroton in 510 BC.¹³⁶ Following this catastrophic event, a Pan-Hellenic venture led by Athens saw the foundation of the Greek colony of Thurii in 444/3 BC. The new city was built on top of the much larger site of Sybaris, but separated from it by alluvial sediments. Extensive archaeological excavations carried out over many years at Sybaris testify to

125 Mollo 2002: 208. Taliano Grasso 2000: 120-121.

126 Mollo 2002: 207. See also: Taliano Grasso 2000: 120.

127 Mollo 2002: 207. Taliano Grasso 2000: 120. See also Givigliano, 1987: 17-18.

128 Mollo 2002: 208. There even seems to have been a hierarchical organisation among the fortified centres (Taliano Grasso 2000: 120).

129 Mollo 2002: 208. See also Sironen 1990: 147-149.

130 Mollo 2002: 208.

131 Mollo 2002: 208-209. See also: Givigliano 1994: 276.

132 Mollo 2003: 367, Tav. I.

133 See Taliano Grasso 2000: 11, fig. A.

134 Mollo 2003: 149.

135 North of the Sibaritide, in the Metapontino, Carter distinguished three Hellenistic site types: *necropoleis*/ tombs, farmhouses/ Greek rural structures and sanctuaries (Carter 2011: 129).

136 Lomas 1993: 30-31 and Cerchiai 2002: 114.

the historicity of the catastrophic event, as the Archaic urban plan and architecture of Sybaris is indeed overlain by the Hellenistic town of Thurii.

With the foundation of Thurii, the Sibaritide entered a new phase that saw the expansion of rural settlement in the plain and into the foothills and the spread of Hellenistic material culture, in the form of the ceramic repertoire that we discussed in section 3.2.¹³⁷ This rapid transformation of landscape and material culture was not unique to the Sibaritide. Indeed, from the end of the 5th century BC all of the coastal territories of southern Italy underwent profound changes in their urban and rural infrastructure, its most characteristic feature being the dispersal of farmsteads and small hamlets over the landscape.¹³⁸ The universality of this trend has been noted in various survey projects and in multiple publications, and must be linked to a complex of factors including broadened access to landownership, specialization and the growth of urban markets.¹³⁹

It is interesting to note that urban and rural expansion took place despite turbulent geopolitical changes, caused by the advance into Magna Graecia of Apennine peoples of Sabellic origin, the *Sanniti* and *Lucani*, emerging from central Italy, and the pressure exerted by these peoples on the Greek colonial coastal plains in Campania and the inland Apennines.¹⁴⁰ The *Lucani* had occupied the fertile coastal plains and Greek cities of Poseidonia and Cuma on the Tyrrhenian coast and had gradually taken control of the interior part of the region.¹⁴¹ Indeed, the written sources even from the time of Thurii's foundation onwards speak of the *Lucani* in political terms, which signifies a long-term dynamic

process of contact with the Greek colonial communities.¹⁴² This explains the necessity felt by the Greek cities to defend their territories by means of inland forts.

To illustrate the pressure, the sources mention how Thurii was allegedly attacked, although not captured, by *Lucani* as early as 433 BC.¹⁴³ In the 4th century BC, the expansionist *Lucani* managed to conquer a territory that in the sources is called "Great *Lucania*". In response to these ingressions, Greek cities founded an Italiote League in order to defend themselves against the *Lucani*, of which also Thurii became a member in 393 BC.¹⁴⁴ In 356 BC, the *Brettii* separated from the *Lucani* and founded *Cosentia* as their capital, where after the territory was divided into *Bruttium* and *Lucania*, the latter also known as "Small *Lucania*".¹⁴⁵ The pressure was acute, as the territory of Thurii bordered on that of *Lucania* to the south. From 346 BC onwards, according to the written sources, the *Lucani* started to expand in an easterly direction, clashing especially with the inhabitants of Heraclea, Metapontum and Taras.¹⁴⁶

In the second half of the 4th century BC, Thurii had to withstand an attack by the *Brettii*, against whom it requested assistance from Alexander the Molossan, king of Epirus and uncle of Alexander the Great.¹⁴⁷ He was one of the foreign commanders called to Taranto to direct the military operations of the Italiote League in southern Italy, which lasted from 334 until 331 BC.¹⁴⁸ Alexander the Molossan forged a strong bond with the colony of Thurii and, after a disagreement with Taranto, is said to have transferred the League's meeting place to Thurii.¹⁴⁹ In 331 BC Alexander the Molossan was killed by

137 See also Attema 2012: 192-193.

138 Russo 2001: 13-16.

139 Attema *et al.* 2010, with references.

140 Mollo 2002: 201, see note 1: the relationship between the *Lucani* and the *Sanniti* was suggested by Strabo, *Geographia*, VI, 1, 3, c. 254.

141 Russo 2001: 15. Ampolo 1989: 232.

142 Mollo 2002: 201 and 2003: 321.

143 Lomas 1993: 33. See also Greco 1980: 119 and Pontrandolfo, 1982: 123. However, Purcell (1994, 387) states that Thurii was sacrificed to the Lucanians, probably in 389-387 BC (Diod. XIV.101-2). Also Strabo (*Geographia*, VI, 1, c252) says the *Lucani* took over the city of Sybaris, while the Romans took it from the *Lucani*; although it is not clear when this should have happened.

144 Mele 1991: 275 and Purcell 1994: 386-387. Guzzo 2016: 334. See also: Cerchiai 2002: 116. However, Lomas states that a League already existed at the end of the 6th century BC and that it was temporarily dissolved in the beginning of the 4th century BC (Lomas 1993: 32-33).

145 Mele 1991: 276. Lomas 1993: 41. Russo 2001: 15. The territory of *Lucania* along the Ionian coast was bounded in the south by the territory of Thurii and in the north by Metaponto and the river Bradano, while on the Tyrrhenian coast it extended from the river Sele in the north to the river Laos in the south (Mele 1991: 276). The origin of the *Brettii* is not certain, there are various hypotheses, see Genovese 2012: 37-39, and Mollo 2002: 202-203 and 2003: 322-323.

146 Mele 1991: 276. Lomas 1993: 3.

147 Cerchiai 2002: 116.

148 Cerchiai 2002: 116. Lomas 1993: 41-42. According to Lomas (1993: 42), Taranto was the main political force in southern Italy in this period.

149 Cerchiai 2002: 118. However, Lomas (1993: 43) states that Taranto reinstated Heraklea as the meeting place of the League.

Lucani and his body was given a formal funeral by the people of Thurii.¹⁵⁰ It is during this period of upheaval that we see rural infill taking place in our study area, which suggests that Thurii was successful in defending its *chora* against the mounting pressure of the *Lucani* and *Bretti*, and may have taken to its own in order to survive the geopolitical crises.

The geopolitical situation changed at the start of the 3rd century BC. In 285 and in 282 BC, the *Lucani* tried to attack Thurii, which called in the help of Rome, who defeated the enemy and, in 282 BC, installed a garrison of its own.¹⁵¹ Taranto could not agree with this Roman military presence within the Tarantine sphere of influence and proceeded to eject the garrison, after which it forcibly made Thurii return to the Italiote League.¹⁵² This episode triggered the Tarantine War against Rome, with the *Lucani*, the *Sanniti*, the *Bretti* and the *Messapi* as allies of Taranto and of Pyrrhus, who then was king of Epirus and came to southern Italy in 280 BC.¹⁵³ Pyrrhus, though, was unable to defeat the Romans and left Italy in 275 BC.¹⁵⁴ From 270 BC onwards, southern Italy was subordinate to Rome.¹⁵⁵

In 264 BC the First Punic War took off, and it ended in 241 BC when Rome triumphed over Carthage. In 218 BC, the Second Punic War started with the arrival of Hannibal in the north of Italy, but after a long tour of warfare he departed from southern Italy in 207 BC.¹⁵⁶ These Punic Wars, as is well known, brought destruction and depopulation to southern Italy.¹⁵⁷ Unfortunately it remains unclear what happened in the Sibaritide during the Second Punic War at the end of the 3rd century BC.¹⁵⁸ In 206 BC, the entire people of *Lucania* came under the control of Rome, and in 205-203 BC also Thurii.¹⁵⁹ Southern Italy is said to have undergone harsh punishments at the hands of the Romans in the shape

of substantial territorial confiscations.¹⁶⁰ Between 194 and 192 BC, Thurii, Kroton, Vibo and Buxentum – among others – were colonised, which entailed a change of status. Thurii was made into the Roman colony of *Copiae* in 194 BC.¹⁶¹

When looking at the rural settlement pattern during this turbulent period, we note that the distribution of rural sites became less dense and that there may even have been an interruption in actual rural settlement in the foothills where we carried out our surveys. This lack of evidence for rural settlement is concomitant with the urban decline of Thurii, underlining the close relationship between rural settlement in the *chora* and the fate of the city. Certainly geopolitics played a role, though we should not rule out environmental deterioration as an adverse factor. In fact, Strabo (*Geographia*, VI, I, 1) mentions how “after the Romans took over Thurii, the river made the city unhealthy, turning the area into swamps”, while sedimentological research shows the vulnerability of the coastal plain embodied by excessive sedimentation episodes.¹⁶² Again we do not know the impact of Roman *Copiae* on its immediate hinterland in terms of rural settlement, because of the alluvial cover, but clearly this impact did not extend into the foothills. Finally, our sites with *terra sigillata* and African red-slip ware should be read in the context of Roman imperial settlement and the founding of *villae* in the Sibaritide, a number of which have been identified.¹⁶³

6. Conclusions

In this paper we have presented a selection of sites dating to the Hellenistic period from a larger sample of Hellenistic sites recorded in intensive archaeological surveys by the Groningen Institute of Archaeology in

150 Cerchiai 2002: 118. Guzzo 2016: 337. See also Mele 1991: 276. Lomas (1993: 43) says that Alexander the Molossan was killed in 330 BC.

151 Mele 1991: 279. Lomas 1993: 51. Cerchiai 2002: 118. Mollo 2002: 203. Guzzo 2016: 337.

152 Mele 1991: 279 and Lomas 1993: 51. Guzzo 2016: 337.

153 Mele 1991: 279. Cerchiai 2002: 118. According to Givigliano, the *Brettii* were not allies of Pyrrhus (verbal communication).

154 Naerebout & Singor 1995: 260.

155 Naerebout & Singor 1995: 260.

156 Naerebout & Singor 1995: 263.

157 Naerebout & Singor 1995: 266.

158 Guzzo (2016: 337) states that Thurii continued to be loyal to Rome during the 3rd century BC. Also Greco (1980: 119) mentions that Thurii had always been on the side of Rome during the Punic Wars. Lomas (1993: 59, 61, 74) however, claims that Thurii abandoned its alliance with Rome and supported Hannibal until the very end of the war. Cerchiai (2002: 118) says that Thurii was invaded by Hannibal, who in 204 BC transferred its inhabitants to Kroton. See also: Greco, 1980: 120.

159 Mele 1991: 280; Mollo 2018: 59.

160 Mollo 2002: 204.

161 Lomas 1993: 80. However, it must be kept in mind that the aftermath of the Hannibalic war in southern Italy is very poorly documented in terms of literary evidence and that Roman historiography is pervaded by anti-Italiote sentiment (Lomas 1993: 85).

162 Attema 2017: 466.

163 Accardo 2000.

the area of the foothills of the Sibaritide, as part of the Raganello Archaeological Project. These sites were dated by means of a typochronological study of the pottery by the first author. Apart from a dense distribution of small protohistoric pottery scatters, the intensive documentation of the surface record of the sampled area did not yield convincing evidence for the presence of Archaic/Classical pottery scatters; neither as discrete scatters, nor as part of multi-period ones. It appears that rural infill of the foothills in the period of Greek colonisation only started in the 4th c. BC, soon resulting in a dense pattern of farmsteads, *fattorie* and hamlets. Yet this pattern lasted only for a relatively short period, at least in the area surveyed by the GIA teams. Relatively few sites have a Roman component; by the coming of Rome, rural settlement apparently had already thinned out.

We may cautiously extrapolate the detected rural settlement pattern in our sample area to the wider region, assuming that the larger part of the archaeological sites mapped in the extensive surveys by De Rossi *et al.* found across all of the foothill zone, likewise date to the Hellenistic period and hence were part of the *chora* of Thurii. The occurrence of such a dense Hellenistic pattern in the Sibaritide would tie in with observations in nearby coastal landscapes including the Krotonide, Siritide, the Sinni valley and the Metapontino, as well as in other coastal landscapes and valley environments in southern Italy – without, of course, ruling out the presence of Archaic- and Classical-period farmsteads or Roman and later *villae* in the Sibaritide foothills. The scarcity of Archaic- and Classical-period farmsteads is a general characteristic of the rural settlement patterns of South Italian landscapes. In order to locate any earlier sites in the Sibaritide, intensive additional surveying over a larger area is needed.

De Rossi *et al.* observed that the rural site pattern of the Hellenistic/Roman period consisted of single farmsteads, *fattorie* and agglomerations of rural households forming hamlets or small villages. Our survey has confirmed this observation for the Early Hellenistic period, but neither in the extensive survey nor in our intensive survey was it possible to detect convincing evidence for the presence of shrines or sanctuaries, cemeteries or pottery kilns. In our case this is undoubtedly due to the poor preservation of the surface record, which allows only limited functional analysis of the ceramic assemblage, while the survey of De Rossi *et al.* included no typo-chronological or functional ceramic studies.¹⁶⁴

Rural infill during the Hellenistic period is contemporaneous with the existence of the city of Thurii and took off some time after its foundation in 444/3 BC. The founding of farmsteads, isolated and in groups, as well

as *fattorie* show a willingness among both common folk and entrepreneurs to invest in rural property. While we have no indications for crop choice in the plain, as the evidence for rural presence there stems solely from augerings, we surmise that farming in the foothills was at least partly geared to the production of wine and olive oil, if we take the presence of amphorae at some of our sites as evidence for the storage and transport of these products.

The rapid agricultural development that took place in the Sibaritide during the Hellenistic period, as manifested in the dense rural-site pattern, indicates that the city of Thurii was initially successful, despite the continuing political turmoil among city states and indigenous populations as described in section 5; but that this success was short-lived. In comparison with the Archaic and Classical periods the plain may have seen a rural demographic increase, as we may cautiously deduce from augerings containing Hellenistic materials, and there certainly was demographic increase in the foothills. The evidence for surplus production at a site such as the *fattoria* of Portieri found in the surveys of the Raganello Archaeological Project indicates that Thurii functioned as a local market for which one could profitably produce, and which made it worthwhile to invest in small- and large-scale rural property. It is therefore not unimaginable that, although urban elite investments will have been an important driver of Hellenistic rural development, it was also worthwhile for peasant families to invest and produce for the market.

The favourable demographic and economic situation did not last, however, and this we must view in the context of geopolitical stress and possibly also environmental deterioration in the plain, comparable to the situation in the Metapontino, where urban and rural occupation contracted as well. While this historical-ecological perspective requires further study, it is certain that the Roman rural landscape was totally different from the Early Hellenistic one, probably more extensively farmed and much less densely settled. It is telling that Thurii's successor, Copiae, was a city considerably reduced in size.

7. Acknowledgements

The first author would like to thank the following foundations for their financial support: Fundatie van de Vrijvrouwe van Renswoude te 's-Gravenhage, Istituto Italiano di Cultura per i Paesi Bassi, Koninklijk Nederlands Instituut te Rome, Philologisch Studiefonds, Prins Bernhard Cultuurfonds, Rijksuniversiteit

¹⁶⁴ A cave sanctuary is known at Balze di Christo, apart from the Hellenistic continuation of the sanctuary at the Timpone della Motta.

Groningen, Stichting Fonds Doctor Catharine van Tussenbroek en Stichting Jo Kolk Studiefonds.

The authors are grateful to dr. D. van den Biggelaar for help on the geomorphological information, dr. P.M. van Leusen, S. Boersma and E. Bolhuis for editing the maps and the KU Leuven for their permission on using the LIDAR data. Furthermore the authors thank the two reviewers for their helpful suggestions.

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