Satricum in the Post-Archaic Period. A Case study of the Interpretation of Archaeological Remains as Indicators of Ethno-Cultural Identity

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Satricum in the Post-Archaic Period

A case study of the interpretation of archaeological remains as indicators of ethno-cultural identity

Marijke Gnade
Satricum in the Post-Archaic Period

A case study of the interpretation of archaeological remains as indicators of ethno-cultural identity

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor
aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus
prof. dr J.J.M. Franse
ten overstaan van een door het college voor promoties ingestelde
commissie, in het openbaar te verdedigen in de Aula der Universiteit
op donderdag 16 november 2000, te 12.00 uur

door Marijke Gnade
geboren te Amsterdam
Promotor: Prof.dr H.A.G. Brijder
Faculteit: Faculteit der Geesteswetenschappen
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PREFACE AND ACKNOWLEDGEMENTS

When the Southwest Necropolis of Satricum was published in 1992 I wrote in the preface that a separate publication discussing the cultural background of the fifth-century inhabitants of Satricum was to be expected at a later date. I had no idea then that the project would take another eight years to complete. Most of this time was spent on field research in Satricum, during which various rescue excavations yielded important new information on this period. The elaboration of these excavations has taken a lot of time. With this book I am at last able to present a first synthesis of the new results, in close reference to the summaries of other excavations in Satricum conducted by my colleagues from the University of Groningen.

This study would never have been possible without the authorisation and kind cooperation of the Archaeological Superintendency of Latium. I would like to thank the Soprintendente, Dott.ssa Anna Maria Reggiani and her staff, in particular the ispettrice of the region, Dott.ssa Analisa Zarattini, for their confidence in me.

I am greatly indebted to Dott. Mauro Rubini who undertook the difficult task of re-analysing the poorly preserved osteological remains from the Southwest Necropolis. He produced some surprising new results, which are published in this study. I am further indebted to Professor Giovanni Colonna for his stimulating interest in all matters concerning Satricum. Among the many Italian colleagues whom I have met throughout my years of research, I would especially like to mention Dott.ssa Maria Teresa Onorati, Director of the Museo Archeologico Comunale di Frosinone, who kindly invited me to study the Frosinone material and has kept me well posted on 'Volscian' matters. Over the years she has become a true friend.

Thanks are also due to the owners of the terrain under which the remains of ancient Satricum are hidden. First of all I would like to thank the Dominici family, former owners of the land containing the acropolis and the Southwest Necropolis. Permission to continue the exploration of these terrains has kindly been given by the new owner, Dott. Angelo Lugli. Furthermore, I am greatly indebted to the Santarelli family, in the person of Dott. Antonio Santarelli, whose efforts enabled us to resume the excavations in the Poggio dei Cavallari. The Santarelli family further provided generous financial support for the two excavation campaigns of 1996-1997.

Thanks are also due to the Comune di Latina for kindly giving us permission to lodge our students in the elementary school at Borgo Le Ferriere during the excavations.

The Dutch Institute in Rome has contributed a great deal towards the completion of this study. During the long years of research I was a regular guest at the Via Omero, while the Institute's staff offered all kinds of assistance during our annual excavation campaigns. Here I would like to mention Mrs. Kitty van der Linden, Mrs. Tineke van der Laan and Mrs. Ivana Bolognese and, in particular, the late Director of the Dutch Institute, Dr. Th. J. Meijer.
Financial support has been provided by a number of institutions and persons. The University of Amsterdam financed the annual campaigns at Satricum. Additional financial support was supplied by the UTOPA Foundation and by the Foundation Nederlands Studiecentrum voor Latium (NSL), which rents an apartment near the excavations for our use during the Satricum campaigns. The Netherlands Organization for Scientific Research (NWO) awarded me a travel grant. Mrs. A.M. Kalmeijer generously supplied financial support for the correction of the English text, for which additional funds were made available by the Allard Pierson Foundation. I would like to express my sincere thanks for these allowances.

I am greatly indebted to Professor Herman Brijder, my promotor, who in spite of many delays has retained his confidence in me. I thank him both for his friendship and for the invaluable critical remarks which have guided me towards completion of this study. I am also grateful to Professor Fik Meijer, whose comments have greatly improved the chapter on historiography. Thanks are due to my colleagues at the Department of Classical Archaeology at the University of Amsterdam, who often spared me from the daily duties of teaching. In particular I would like to thank Dr Cees Neef for his practical support. Special thanks are due to my teacher, Dr Conrad Stibbe, former leader of the Satricum project, and to his wife, Dr Barbara Heldring, former head of the excavations. By trusting me with the responsibility for the Satricum excavations, they have allowed me to unlock some of the archaeological secrets of ancient Satricum.

I would also like to thank my friends and colleagues who were always there when I needed them and with whom I discussed many of the conclusions presented here. They are, in alphabetical order: Esther Baarends, Dr Riemer Knoop, Dr Patricia Lulof, Dr Eric Moormann, Alma Reyling, Dr Dé Steures and Dr Demetrius Waarsenburg. I am especially grateful to Riemer Knoop who went critically through the first draft of most chapters and with whom I had many inspiring discussions during the years of research. Patricia Lulof was my indefatigable replacement during the excavation of the Poggio dei Cavallari. Eric Moormann has been and remains a great support and an enormous help in the translation of many difficult Italian texts.

A great many other people have provided me with moral and practical assistance. My family, of course, have supported me loyally over the years. I would also like to thank my friends Dr Elisja Schulte and Dr Peter van Kessel who have extended their warm hospitality on many occasions and always shown a lively interest in my work. Various other friends and colleagues have been of particular help. They are, in alphabetical order: Jacqueline Burgers, Anneke Dekker, Dr Menno Hoogland, Anita Jansen, Marlies Kleiterp, Maria Masullo, Yvonne Scheper, Vladimir Stissi, Selkit Verberk and Mieke Zilverberg.

Sincere gratitude is due to my many Italian friends, especially those in Borgo Le Ferriere and Campo Verde. They have not only assisted me in various practical ways but, more importantly, have also made me feel at home. I would like to mention here Professor Loreto Solazzi and his wife Flora Solazzi, Anna Lucia, our marvellous cook and a tower of strength during the excavations, her husband Rino, the ladies at the coffee bar in Campo Verde, the barkeeper Adriano and his family in Borgo Le Ferriere and, finally, the Longobardi family with whom I shared many meals.
Finally, I wish to thank my students, who in fact are the real excavators of Satricum. They often worked under difficult circumstances, side by side with the Italian workers, many of whom also became good friends. It is impossible to name all the students who participated in the excavations, but I would like to symbolise my appreciation for their help by mentioning Jeltsje Stobbe, who has demonstrated a great dedication and personal involvement in the Satricum-project over the years and been an inspiration to many others.

The English text of this book has been patiently revised by Rob Bland. All remaining flaws are mine. The photographs were made by Anneke Dekker, Annabel Massullo and myself. Anneke Dekker printed them with the utmost care. The pottery drawings were made by students during the excavations under guidance of Dé Steures and Demetrius Waarsenburg. They were inked by Alma Reyling.

This book is dedicated to Marja Luteijn, who has given me invaluable moral support and has watched tirelessly over my well-being while I was absorbed in studying the finds and writing the text.
In 1980 a necropolis was discovered at the village of Borgo Le Ferriere, which is situated c. 60 km south of Rome and generally accepted as the site of the ancient settlement of Satricum. It was excavated between 1980-1987 and more than two hundred inhumation graves dating to the fifth century were brought to light. The results were published in 1992.¹

The Southwest Necropolis, as it is now called, has since aroused great interest. It is the first organized burial ground from fifth-century Latium to be found with regularly furnished graves. Prior to its discovery there had been a striking absence of formal cemeteries from the sixth and fifth centuries in this region. This was in marked contrast to the rich burial record of the preceding centuries, which are characterised by large cemeteries, often with richly furnished graves. Various explanations have been proposed for this remarkable lack of burial evidence.²

The fifth-century graves in Satricum, which so far have no parallels elsewhere, have been attributed to the Volscians. These were an indigenous people from Central-Italy, known primarily from the literary sources. Here they are frequently depicted as a quarrelsome mountain tribe, one of the participants in a general invasion by Central Italian mountain peoples of the coastal plains along the Tyrrenian Sea. From the early fifth century, when they succeed in occupying the southern part of Latium, the Volscians feature prominently in the historical sources, remaining a constant nuisance to Rome for the next hundred and fifty years. Ancient Satricum, lying in the heart of the war zone and reportedly captured by the Volscians in 488, is one of the towns most likely to reveal evidence of their presence. With the discovery of the Southwest Necropolis this supposition appears to be confirmed, but fundamental disagreements about the implications of the find have yet to be resolved. They will form one of the main themes of this book.

The discovery of the Southwest Necropolis at Satricum has given a new impulse to the study of the rather obscure fifth century, which some have described as the 'Dark Age' in Latial archaeology due to the general scarcity of archaeological remains.³ In 1987 this period was the subject of a colloquium organized by the French School in Rome, entitled: *Crise e transformation des sociétés archaiques de L'Italie antique au Ve siècle av. J.-C.*⁴ In his contribution ("Roma, I Volsci e il Lazio antico") Filippo Coarelli characterised the period as "uno dei periodi più oscuri della storia dell'Italia antica" and suggested that the only way to achieve a better understanding of it was by systematic archaeological research, especially in Latium.⁵

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¹ Gnade 1992a.
² See below, Ch. 3.3.1.
³ Coarelli 1990, 135; Attema 1993, 227-229.
⁴ The colloquium was published in 1990 (*Crise et transformation* 1990).
⁵ Coarelli 1990, 135.
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Coarelli’s proposal has proved to be sound, at least in the case of Satricum. In the thirteen years that have since elapsed, intensive and systematic archaeological research in Satricum has yielded enough finds from this period to create a break in the archaeological impasse. These finds and their interpretation form the basis of the present study. They offer convincing evidence for the continuity of the settlement, which has become an important issue in the study of the site ever since the discovery of the fifth century graves.

It is commonly assumed that the settlements in southern Latium underwent major changes around the turn of the sixth century. The assumption is based, amongst other things, on a remarkable shift in the archaeological record of the main Archaic centres, characterised by the sudden absence or marked reduction of archaeological data. This lacuna in the archaeological record covers a period of approximately one and a half centuries and is generally seen as closely linked to the military activity described in historiography.

The archaeological lacuna has recently been confirmed on a regional scale by a systematic field survey, conducted in the southern part of present-day Lazio, which yielded remarkably few finds that could be dated to the fifth and early fourth centuries. Whenever finds were attested to this period they were dispersed, in striking contrast to the dense distribution of finds from the previous period. The hypothesis which has developed from this disparity is that the Archaic nucleated settlements in southern Latium came to an abrupt end sometime during the late sixth century and were subsequently abandoned. The population was assumed to have dispersed within the region and to have survived in small settlements or isolated farmsteads. The changes observed in the archaeological record have then been explained in terms of a general and severe economic decline in the region, which in turn is linked to the earliest phases of Roman territorial expansion. Moreover, these changes are seen in conjunction with the main military and political events recorded by the ancient historians, such as the Volscian wars and the establishment of the early Roman colonies. This accumulation of events is seen as having had a disastrous effect on the existing Archaic settlements.

From this perspective, the period in which the changes took place is portrayed as one of transition from Latin protohistory to Roman history - a period of roughly one and a half centuries which sees the disintegration of Archaic society and its gradual replacement by a new society defined according to a Roman model. In order to underline its transitional character, the period has been labelled 'Post-Archaic'.

It has been suggested that the settlement of Satricum, in spite of its rich and fundamentally different archaeological record, underwent a similar or even more radical change at the beginning of the fifth century than that experienced in the rest of the region. This view leans heavily on differences observed in the use of specific areas of the sixth-century settlement. One example is the fact that a burial ground is laid out within the sixth-century perimeter of the town. Another is the striking absence of structures

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6 The survey was carried out between 1987 and 1993, in the transitional area between the Monti Lepini and the Pontine region, north of the Via Appia. The selected archaeological sites were Norba, Cori, Sezze, Sermoneta (Contrada Casali), Caracupa/Valvisciolo and Cisterna. The results have been published in Attema 1993.
7 See Attema 1993, 17-18, 212.
8 See Attema 1993, 91. I follow Attema in the denomination of this particular period as Post-Archaic, with an initial date of 500/480: i.e. the date of construction of the last monumental temple, generally referred to as Temple II or the Late-Archaic temple.
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datable to the Post-Archaic period which is observed on the acropolis. The conclusion drawn is that the town was abandoned somewhere at the beginning of the fifth century. The barely completed Late-Archaic temple and surrounding structures on the acropolis are held to have been destroyed and never rebuilt. According to this view, some religious activity may have continued (the ruined sanctuary supposedly still frequented by pilgrims) but the former nucleated settlement would have been replaced by a small settlement of simple peasants with their own burial ground. These peasants are assumed to have lived on the periphery of the former settlement area and to have been economically dependent on religious activity related to the sanctuaries via the production of votive objects.10

This image of Post-Archaic Satricum is, in my view, far too simple. Without doubt, the town did suffer from the effects of the general economic decline in Latium. And, of course, this would have had socio-economic consequences which, to some extent, might account for changes noted in the archaeological record. But the rich and varied nature of this record in Post-Archaic Satricum demands a much broader approach, one which is also willing to examine the various aspects of continuity and discontinuity from a ethno-historical perspective. In what follows, I will be arguing that changes in the archaeological record of Satricum actually point to a cultural break with the previous period and as such testify to a shift on an ethno-cultural level. A revision of our image of Post-Archaic Satricum based on all the available data, both archaeological and historical, is therefore required.

Studies concerning the Volscians are thin on the ground, no doubt because of the scarcity of available material. This mainly consists of literary references. The main synthesis of the subject is by G. Radke, published in 1961.11 His work is widely considered to be a thorough and valuable survey of the ancient literary data and of the archaeological evidence available at that time. A. Alföldi, in his important Early Rome and the Latins, examines the annalistic references to the many Roman-Volscian encounters and evaluates their historical credibility from a hyper-critical standpoint.12 In the light of the discovery of the Southwest Necropolis at Satricum, Coarelli re-examines the arrival of the Volscians in southern Latium, their possible place of origin and the impact of their presence on the economic, social and political situation in the Pomptine plain.13 In 1992, as a direct result of the 'discovery' of the Volscians in Satricum, the annual congress of Latial Archaeology adopted the Volscians as its theme. Their case was re-evaluated from three different points of view: historical, epigraphical and archaeological.14

Most studies, however different their line of approach, place the decisive moment in the Volscian appearance in the Pomptine plain not earlier than the 490's, rejecting annalistic references to earlier contacts between Romans and Volscians as unreliable.15 Moreover, there seems to be general acceptance of the traditional image of the Volscians as a

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15 An exception is D. Musti who argues for an earlier Volscian presence in the Pomptine region (see his contribution to the Latial conference on the Volscians, Musti 1992, and below Ch. 4).
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quarrelsome mountain tribe (or a bunch of barbarian highland brigands) whose main occupation was making predatory raids upon settlements in the plain. I will examine both these assumptions (esp. in Ch. 3.3 and 4), and will attempt, in the light of the new discoveries in Satricum, to revise some of the stereotypical views of the Volscians which have long been accorded almost the status of fact.

Since the publication of the Southwest Necropolis, further research and excavations conducted in various parts of the urban settlement have brought to light many archaeological finds dating to the Post-Archaic period. These finds show an intrinsic coherence comparable to that of the preceding periods.

Three areas of the settlement are important to the study of Post-Archaic Satricum. In the first of these, the acropolis, a large deposit of artifacts covering a period of at least three centuries (from the beginning of the fifth to the late third century) provides a presumably sacrificial continuity (Ch. 3.1.1). In the fifth century, alongside its sacrificial function, the acropolis is also used as a burial place (Ch. 3.1.2). The second area is the Poggio dei Cavallari, situated in the lower settlement, to the northwest of the acropolis (Ch. 3.2). This has yielded the remains of a monumental road dating from the Late-Archaic period, which covers the remains of an earlier Archaic road. Several strata dating to the fifth and fourth centuries have been recorded on top of the road. The material recovered from these strata attests to two phases of restoration, as well as to the continued habitation of the site throughout the entire period. A series of graves dating to the fifth century has also been discovered to the north of the road. The third area is the southwest corner of the settlement, which contains the Southwest Necropolis. This comprises more than 200 graves, dating to the fifth and early fourth centuries (Ch. 3.3). The discussion of these three areas is supplemented by data deriving from the 1907-1910 excavations which have only recently been published. Post-Archaic buildings are, as yet, absent from the archaeological record. However, domestic activities can be inferred from ceramics collected over the entire settlement area.

Interrelated study of the various phenomena outlined above will deepen our understanding of developments in the occupation pattern of Satricum during the Post-Archaic period. In the process we will establish that the town of Satricum continued to exist in the fifth and fourth centuries, albeit with some significant changes.

I will also attempt to establish the nature of the community that populated Satricum in this period by relating the archaeological remains to the historical data (Ch. 4). Whilst aware of the dangers implicit in such an approach, I am convinced that the case of Satricum supplies the ingredients necessary for testing (and possibly reconsidering) current views regarding the interpretation of archaeological data in relation to historical sources. The exceptional correspondence between the archaeological and the historical records of fifth- and fourth-century Satricum is something which should not be neglected. On the contrary, its potential should be explored to the full.

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16 Ginge 1996.
2 SATRICUM IN THE ARCHAIC PERIOD: NEW DISCOVERIES IN THE LOWER SETTLEMENT

Introduction
Due to its exceptionally rich and varied archaeological record, ancient Satricum is commonly regarded as a key-site for the study of Latial settlements. The evidence it has yielded presents a unique range of features which document life, death and worship in a Latial community for a continuous period of more than three centuries. From its beginnings as a modest hut compound on a tufa plateau beside the river Astura somewhere in the ninth century, Satricum developed during the eight and seventh centuries into a rich and flourishing centre. At its peak it was one of the major urban settlements in Archaic Latium. Its favourable position at the crossing point of the region’s main communication routes can be regarded as one of the main reasons for its prosperity and growth.

Satricum was at its largest in the sixth century, when it covered an area of approximately 40 ha. Apart from the tufa plateau (which is commonly identified as the acropolis of the site) the settlement area then extended to the adjacent lower plateaus of the Poggio dei Cavallari and the Macchia Santa Lucia. The area was presumably surrounded on all sides by natural or artificial defences (Figs. 1, 3).

Until recently, our knowledge of Satricum during the Archaic period was based solely on archaeological evidence from the acropolis. The rest of the urban area had been thoroughly ploughed and levelled in the 1960’s, probably destroying most of the ancient remains. Besides the impressive tufa foundations of three successive temple buildings, the acropolis has yielded numerous other foundations (Fig. 2). These indicate a large number of structures with a variety of ground plans. The majority of these were discovered in the western part of the acropolis; that is, in front of the central sanctuary. Systematic excavation of this area, conducted by the University of Groningen between 1979 and 1989, greatly extended the discoveries made at the end of the nineteenth century. The plans of several buildings could now be completed. A reconstruction of the building history of the Archaic period was proposed in three distinct phases, each of which was linked to one of the successive structures of the central sanctuary. These in turn were

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17 See, most recently, Smith 1999, 453-475, reviewing five of the recent publications on Satricum.
18 In reality the area in front of the sanctuary is situated in the SW segment of the compass but, for convenience sake, it is usually referred to in cartographical terms. Unfortunately, the orientations used in the various publications do not correspond. The front side of the sanctuary is indicated either as the west side or as the south side. I follow the orientations used by the excavators from the Dutch Institute: i.e. west for the area in front of the sanctuary.
19 On the excavations conducted at the end of the nineteenth century, see Barnabei 1896, 99-102; Barnabei/Cozza 1896, 23-48, 69; Barnabei/Mengarelli 1896, 190-200; Mengarelli 1898, 166-171; for the results of the recent research in front of the sanctuary, see Maaskant-Kleibrink 1987; eadem 1991; eadem 1992.
provided with a new chronology,\textsuperscript{20} which was fundamentally different from those previously proposed and which remains controversial.\textsuperscript{21}

Archaeological research of the acropolis is now largely focussed on the area behind the sanctuary, where the first excavation was begun in 1980 by the Dutch Institute in Rome.\textsuperscript{22} The project was taken over by the University of Amsterdam in 1991. A substantial part of this area has since been uncovered, revealing the stone foundations of several new buildings.\textsuperscript{23} Broadly speaking, these appear to be much better preserved than the remains in front of the sanctuary, thanks to the fact that the modern ground level is higher here. They also appear to differ in plan and/or building technique from the buildings excavated in the western part of the acropolis. As matters stand, the remains behind the sanctuary do not fit easily into the rather schematic reconstruction of the building history of the acropolis, based as it is upon the remains in front of the sanctuary.\textsuperscript{24}

The excavation behind the sanctuary is still going on and will probably reveal new structures.\textsuperscript{25} A revision of the building phases (and of their chronology) is therefore to be expected in the near future.

Despite the disagreement surrounding the building history of the acropolis and its chronology, there is general acceptance that the sixth-century settlement demonstrated a range of urban features. The monumentality and embellishment of the main sanctuary, the organized lay-out of the hill, the defensive system surrounding the settlement area, are all enterprises which require collective effort and presuppose a central political authority. This, in turn, is widely regarded as a characteristic feature of urban organization.\textsuperscript{26} Lately, this list has been supplemented by new evidence of sixth-century infrastructural organization. For example, the remains of a monumental road were discovered in the Poggio dei Cavallari, to the northwest of the acropolis, probably connecting the lower

\textsuperscript{20} For the seven building phases distinguished on the acropolis, see Maaskant-Kleibrink 1992, 13-17. Phases IIIA (590-580/70), IIIB (580/70-540/30) and IV (540/530-510/490) correspond to the three successive stone phases of the sanctuary. Phases I (830-725), IIA (725-650) and IIIB (650-600/590) cover the previous hut settlement.

\textsuperscript{21} For a survey of the architecture and the proposed chronologies of the temples of the sanctuary see, most recently, De Waele 1997, 67-83. The most striking departure from earlier proposals, which is worth mentioning here, is the updating of the chronology of the first monumental temple (Temple I) by at least 40 years to 580-540. The new chronology is coupled to a drastic shortening of the ground plan of the same temple. Both changes are directly related to a new interpretation of the Archaic Votive Deposit as a primary, open deposit (see below, Ch. 3.1.1). The architectural improbability of the new reconstruction of Temple I has been convincingly demonstrated by De Waele, 1997, 77-79. For stratigraphical arguments against the new chronology, see the short discussion below, Ch. 3.1.1.

\textsuperscript{22} For the excavations behind the temples, see Stibbe 1981, 306; \textit{idem} 1983a, 52-53; Heldring 1984, 98; \textit{eadem} 1987, 285-287.

\textsuperscript{23} Gnade 1997a, 42-48.

\textsuperscript{24} For a first presentation of these remains in relation to those in front of the sanctuary, see Gnade 1997a, 42-48.

\textsuperscript{25} So far only about 20\% of the area behind the sanctuary has been excavated. Given the density of the wall remains discovered in front of the sanctuary, as well as the number of newly discovered remains behind it, we can legitimately assume that this pattern of occupation is continued in the remaining area.

\textsuperscript{26} For the problems connected with the process of urbanization in the ancient Mediterranean world and for the wide range of criteria which are variously used for the definition of the urban centre, see the publication of the conference on urbanization held in Copenhagen in 1994, "Urbanization in the Mediterranean in the 9th to 6th Centuries BC", \textit{Acta Hyperborea} 7, 1997. Forthcoming, Proceedings of the Congress "From Huts to Houses" held at the Danish Institute in Rome in 1998. For a discussion on the issue of the transition from hut to house, or from village to urban centre, see C. Ampolo, \textit{MEFRA} 92, 1980, 567-576; see \textit{idem}, Periodo IVB (640/630-580 a.C.), in \textit{La formazione della Città nel Lazio}, \textit{DialArch} n.s. 2, 1980, 165-192; \textit{idem}, La città antica, \textit{Opus} 2, 1983, 425-430. For a synthesis of the Latial urban centres, see Guaitoli 1984, 364-381.
settlement with the acropolis. To date, this road is the only one of its kind known in ancient Latium. In the following section we will present its remains in some detail, since the relatively good state of its preservation provides insight into various aspects of a large-scale public work. Furthermore, the stratigraphical picture presented by the Poggio dei Cavallari is of great value to the reconstruction of the broader building history of ancient Satricum. In contrast to the acropolis, which has so far failed to yield any evidence of building activity in the Post-Archaic period (see below), the Poggio dei Cavallari offers a stratigraphical sequence which bridges the implausibly sudden break between the Archaic and Post-Archaic periods. Close study of the remains encountered there may therefore help to distinguish the differences and the resemblances between the two periods.

It is no exaggeration to say that the road makes a major contribution to our (limited) understanding of Satricum as an urban settlement. All our previous estimates of the extent of the urban area, as well as our knowledge of its features (such as the road system and fortifications), were based on the drawings and photographic documentation of the remains excavated at the end of the nineteenth and beginning of the twentieth centuries, supplemented by descriptions of whatever could still be seen of those remains in the early 1960's. Unfortunately, with the large scale topographical transformation of the area and the destruction of more than 80 percent of ancient Satricum by agricultural activity, all hope of a better understanding of its urban organization appeared to have been lost. The same regrettable situation pertains to many Latial sites. The excavations in the Poggio dei Cavallari provide a small opening in this archaeological impasse. At the same time, they also supply much new data which will contribute to the discussion about the Post-Archaic continuation of the settlement (see Ch. 3.2).

2.1 THE ROAD IN THE LOWER SETTLEMENT (POGGIO DEI CAVALLARI)

Introduction
One of the very few parts of the urban settlement which has remained partly 'intact', and the only one yet to have yielded a stratigraphical continuity covering the Archaic and the Post-Archaic periods, is the 'Poggio dei Cavallari'. Today it is locally referred to as the 'proprietà Santarelli', after its owner. This terrain (of almost 4 hectares) is situated about 200 m to the northwest of the acropolis (Fig. 1). It lies along the northeastern edge

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27 On the lower settlement of Satricum: Barnabei/Mengarelli 1896, 197-200; Mengarelli 1898, 166-171; on the agger and the various entrances, the road system in the necropolis and the urban area of Satricum see the map of Mengarelli; cf. aerial photograph of Satricum taken in 1936 (Castagnoli 1963, fig. 1; Schmiedt 1970, pl. 21; Waarsenburg 1995, pl. 6). Further, Castagnoli 1963, 505-518 (with, among other things, descriptions and photographs of the agger, 511-512, figs. 7-9; on the road-system, 515-516); cf. also CatLazio primitivo 1976, 325; Stibbe 1981, 305-309; Guaitoli 1984, 370; CatGrande Roma 1990, 231.

28 The enormous extent of the destruction wrought in the nineteen-sixties has been noted on various occasions; e.g. Castagnoli 1963, 505, 516; Guaitoli 1984, 370, n. 49, 'la totale cancellazione dell'area urbana, ad eccezione del settore sud-est dove è stata recentemente scavata una necropoli'. Recent research in the presumed area of the agger confirmed its destruction. The only sign of its former existence is provided by a large ditch, which probably formed an integral part of the defense work, see Gnade 1999.

29 Parts of this text have been published earlier in the preliminary publication of the 1996 excavations; see Gnade 1997b, 93-103.
of the Satricum tufa table and is bordered on the south by the modern road between Nettuno and Cisterna. Unfortunately, when the land was levelled for the planting of vines in 1983, more than a metre of earth was removed from the surface. With it, undoubtedly, went a wealth of archaeological information, including part of a Roman villa which had been long known about. Only a very small section was left untouched: a heap of ground located next to the modern road, containing ancient tufa blocks which projected from all sides.

The area was investigated in three excavation campaigns, which more or less established the extent, character and date of the surviving ancient remains. In 1984 an emergency excavation was carried out, which resulted in the documentation of some 1000 m² of the Roman villa and the discovery of a series of long parallel walls constructed of large rectangular blocks of tufa. The walls were traced in an east-west direction for a distance of at least 140 m, which included an interruption of about 50 m. A few other, shorter walls were also identified. At least two building phases could be established on the basis of the colour and size of the tufa blocks. Pottery finds indicated a long period of use, from the sixth to the fourth centuries. Two hypotheses were then put forward as to the function of the walls: being long, parallel and monumental, they were either part of a fortification situated along the northern side of the urban area or they belonged to a major road (like the one excavated between Cerveteri and its harbour Pyrgi). Unfortunately, following the first excavating season further access to the land was denied. For the next ten years it was referred to as 'the area of the long walls'.

In 1996 the excavation was resumed. The primary objective was now to explore this very large area as quickly and efficiently as possible in order to establish the presence and the extent of the ancient remains. To this end, thirteen long trial trenches were dug in various directions using a bulldozer (Fig. 3, nos. 1-13). The secondary objective was to acquire information which would throw light on the relationship, chronology and function of the walls excavated in 1984. These were uncovered for as much of their length as was feasible. To obtain detailed stratigraphical information, three large transverse trenches were dug (labelled sections I-III).

In 1997 the third and (presumably) final excavation was carried out. Sections I-III of the previous year were continued, two new sections were set out (sections IIA and VI) and some new, larger units were explored (area IV and V) (Fig. 3).

In total, about 800 m² of the area has now been investigated. On the basis of the stratigraphical information thus gathered, at least three (successive) building phases have been identified: an Archaic (or possibly Orientalizing) phase represented by the remains of a pavement which probably belonged to a road running towards the acropolis; a Late-Archaic phase, dating to the last quarter of the sixth century and the early years of the fifth century, represented by a monumental rebuilding of the road, its destruction and subsequent restoration; and a Post-Archaic phase, represented by graves dug next to the road and by a raising of the road level, together with a rampart-like construction on the southern side (see Ch. 3.2.1).

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30 The Roman villa was discovered during the Italian excavations at the end of the nineteenth century; see Barnabei/Mengarelli 1896, 199.
31 For the reports of these excavations, see Heldring 1985, 72-75; Heldring/Stibbe 1987, 234-238. For the Roman villa, see also CatSatricum 1985, 173-175.
33 Gnade 1997b, 93-103.
Apart from two interim reports, the discoveries in the Poggio dei Cavallari have not yet been published.\textsuperscript{34} The definitive publication is still in preparation, and therefore only a general survey of the excavation results will be presented here, illustrated by a selective sample of relevant finds. This chapter will deal with the history of the road in the Archaic period; \textit{i.e.} its original lay-out and the monumental rebuilding. In Chapter 3, which deals with the Post-Archaic history of Satricum, the later history of the road and its surroundings will be discussed.

**Late-Archaic phase**

The remains associated with the Late-Archaic rebuilding of the road are the most impressive and are therefore described first. They consist of two long parallel walls running east-west and following a slightly curving course (c-d) (Fig. 4). These are constructed of large rectangular blocks of red-brown tufa of very regular size. They are of the type used to build the second temple of Mater Matuta. The walls were traced over a total distance of 140 m, which included an interruption of about 50 m. They are located between 5 m and 6 m apart and appear to have been constructed at the same time. They stand in a wide and probably natural depression in the virgin soil and are adapted to its sometimes irregular course. Towards the east they follow the incline downwards, while towards the west they correspondingly rise. The walls generally consist of two neat courses of red-brown tufa blocks with a total height of about one metre (Fig. 8a-c, e-h; Pls. 3-4). A third course of blocks has sometimes been added, clearly reflecting the irregular lie of the land and ensuring that the tops of the walls run at a constant height (Fig. 8e; Pls. 1-2). The blocks are regular in size: 0.55 by 0.80 by 0.40 m.\textsuperscript{35} Most are laid as stretchers, interrupted at regular distances by a header projecting on the inner sides of the walls, obviously to give the wall more strength. At the bases of the inner sides of the lowest blocks, at the junction with the virgin soil, there is a very compact and tough stratum of compressed tufa chips, which probably acted as a kind of concrete laid to stabilize the walls at the point where they rest on the soil (Pls. 3-4). At the same time it may have served to protect the bottoms of the lowest blocks from damage by water. The tufa stratum probably consists of fragments chipped from the blocks, which were worked \textit{in situ}. This is demonstrated by the continuous chisel marks found on adjacent blocks. (Pl. 4). The space between the walls and above the tufa stratum contained a filling consisting of mixed layers of clay and sand, sometimes with intentional layers of pottery sherds - often from large storage jars - and roof-tile fragments, mixed with chunks of tufa. The filling was laid on top of a thick, distinct and remarkably clay-like bottom layer. A pavement, more or less corresponding to the top of the walls, covered the filling. This is only sporadically preserved and differs from place to place. In the largest preserved parts it consists of small chunks of white tufa stuck together, covered in places by small blueish pebbles. Such remains were recorded in section I (Pl. 6), along and partly on top of road wall \(d\) and in section II. In the latter a strip of similar (but burned) pavement was recorded for about 0.50 m along the inner side of wall \(c\).

\textsuperscript{34} See preceding notes.

\textsuperscript{35} Cf. Lugli 1957, 189-193, on the measuring standard in the Archaic and early Republican periods of the Osco-Italic foot of 0.275 cm. The general size of the tufa blocks in this period is 2 x 3 feet (0.54-0.58 x 0.80-0.88).
SATRICUM IN THE ARCHAIC PERIOD

In other places the pavement consisted of a thick layer of densely packed pebbles (c. 0.10 m) covering half of the uppermost tufa block and lying on top of a thick sandy underlayer. This situation was recorded in section III, in relation to wall c (Pl. 5). Section IIA was deepened just enough to reach the top of wall c, and revealed the surface of a similar pebble paving which again ran along the inner side of the wall.

It was thus established that the walls acted both as the lateral limits of the road (or rather of its filling) and as foundations supporting a pavement. The builders seem to have made use of a natural depression in the virgin soil (or perhaps a ditch) about 10 m wide. The foundation walls were built along the sides of the depression and the space between them was filled with different layers of materials, probably chosen to facilitate drainage. The whole construction was finally paved. On the basis of the general character of the pottery sherds, the filling between the walls can be assigned to the Archaic period.

The road also appears to have been provided with a drainage system. A large gutter was identified along the south side of the southern wall. In three different places in the western part of the excavation (sections II, IIA, III), a stratum of (originally) complete red Archaic roof-tiles was recorded. It appeared that the roof-tiles were lying in their original position, probably side by side in pairs, with their top sides up, covering the trench between the wall and the edge of the depression. Due to the pressure of the earth above, the tiles were found broken in situ (Pls. 16, 32).  

Structures beside the road

Stretches of other walls were also identified alongside the road. These, like walls c and d, are constructed of identical blocks of red-brown tufa and probably date from the same period. In one case (in the western part of the excavation, north of wall d) they form part of a rectangular structure, with three walls creating a U-shape and an open side to the north (e-f) (Figs. 5, 7). The walls of this structure are also two blocks high. A similar (but larger) structure appears immediately to the west (i/g). Although the long E-W wall of this structure (g), which can be followed for a length of at least ten metres, appears to be a continuation of wall e, this is not in fact the case. The walls i/g rather appear to be part of another structure that, unlike that formed by e-f, has walls only one block high, resting on a thick sandy layer (Pl. 17). As will be shown below, this structure presumably belongs to a later phase, probably a restoration of the road (see Ch. 3.2.1). Structure j can also be attributed to this phase and will therefore be dealt with in the next chapter.

The chronological connection between structure e-f and the Late-Archaic road is suggested not only by the equal heights of their respective walls, but is also suggested by the substantial remains of a pavement recorded on top of walls e-f and covering their intramural space (Figs. 7, 10, 12; Pl. 6). This pavement consists of a thick and very hard

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36 Cf. Gnade 1997b, 96, where a concentration of tiles, recovered in section II and covering road wall c, were mistakenly interpreted as part of a collapsed roof datable to the end of the sixth or the beginning of the fifth century.
37 This suggestion was made in the preliminary report of the 1996 campaign (Gnade 1997b, 96). However, during the 1997 excavation a new stretch of wall (j) was brought to light. This appeared to form a right angle with wall e. The deepening of the excavation trench at the same time revealed that the presumed continuation of wall e was only one block high and was resting on earth, rather than on the sandy virgin soil like wall e. For this reason I have assigned the wall to another structure from a subsequent building phase and renamed it wall g (see below Ch. 3.2.1, for the discussion of wall g).
layer of densely packed white tufa chunks covered with pebbles. About 20 m² appear to be preserved. The fact that the pavement covers walls e and f suggests that they were an integral part of the road’s lay-out and served as the foundations of the pavement.

On the other hand, it is also possible that the pavement belonged to the succeeding building phase associated with wall i of structure gi (see above and Ch. 3.2.1). A small sounding taken through the highest point of the pavement, next to wall i, revealed a very thick and hard layer of closely packed white tufa lumps (c. 0.50) which could have belonged to two pavements laid one on top of the other (Fig. 12). Furthermore, the greyish layer underneath the sectioned pavement in section I revealed a concentration of closely packed fragments of storage jars and small tufa lumps which seemed to have been laid down intentionally (Fig. 7; Pl. 6). This layer may have acted as a substratum to the pavement which actually covers the walls, but it may equally be the remains of the pavement belonging to the walls. Its surface was more or less at the same height as the top of the walls.

Either way, side-structure e-f must have been part of the same lay-out as the Late-Archaic road on its south side and may be tentatively identified as the foundation of a side walk.38

A structure that can also be ascribed to the Late-Archaic phase is a stretch of high wall (h), laid out diagonal to the north side of the road and constructed of red-brown tufa blocks (Fig. 5; Pls. 7-8). It is situated in the centre of the excavation area, at the end of the preserved western section of the road, and has at least five courses of tufa blocks measuring c. 0.40 m in height and c. 0.80 m in length. The blocks are laid as headers and, on the north side, each course slightly projects beyond the one below. At first sight it looks as if the blocks may simply have shifted over time, but their regularity indicates that the projections were probably part of the original construction. The scale of the wall, its orientation and its position in the terrain (which is steeply inclined at this particular point) suggest that the wall acted as a kind of contraforte to the road. On the other hand, it could be argued that this wall too functioned as a side wall, retaining the fill of a possible side road bridging the deep hollow in the ground.39 In any case, the lowest blocks of wall h had not yet been reached by the end of the excavation campaign in 1997.

In the eastern part of the excavation, south of wall c’, two other walls were identified. One ran parallel and at 0.50 m distance to wall c’, while the other was connected to it at a sharp angle (c. 50 degrees) (Fig. 6; Pl. 9). Together the two walls form a triangular structure. Although this structure appears to have been constructed at the same time as the road, a plausible theory for its function is not yet to hand.

38 A similar type of construction has been identified in the road between Cerveteri and Pyrgi (see below).
39 For a similar (but much later) type of construction, with blocks projecting on one side, see the section of the viaduct of the Via Flaminia which bridges the valley of the Treia, Quilici 1989, 501, fig. 19.
Archaic phase
An earlier, probably Archaic phase was recorded in the last year of research in places where the excavation between and beside the road walls reached the virgin soil. In two of the transverse sections dug across the road, the remains of earlier pavements came to light (sections I and III). A thin stratum of very small tufa chunks mixed with small blueish pebbles was unearthed beneath the lowest clay-like layer of the filling between walls c and d in section I (Pl. 3; Fig. 10). It also appeared immediately under the tufa stratum against the lower blocks of these walls, directly on top of the virgin soil. In some places this stratum was more substantial, consisting of densely packed brownish tufa chunks and concentrations of large, blueish pebbles (section III; Pls. 5, 13).

In one area (at the far end of the preserved western section of the road, south of the contraforte wall h) this stratum was covered by another (thicker) pavement of white tufa chunks (Pls. 10-11). This strongly resembles that found between and on top of walls e and f, but given its much lower level (about 0.50 m below the lowest blocks of walls c and d) it must belong to an earlier phase. This pavement was found very well preserved and covering a large area of about 25 m². The depression of the original cart-track running east-west was still visible. Like the pavement of the road above, this stretch was also bordered by a row of tufa blocks (Pl. 12). Here, however, they were irregular, much smaller in size and of different types and colours.

The remains of pavement of the earlier road in section III, were found on either side of wall c. To the north, underneath the compressed tufa stratum (see above) against the lowest blocks of the wall, a large concentration (c. 0.30 wide) of irregularly shaped tufa lumps was recorded (Pls. 5, 33, 36). To the south, in the space between the wall and the edge of the depression, halfway down the lowest block, a stratum of large, blueish pebbles mixed with a considerable amount of pottery and tile fragments (c. 130 fragments) was brought to light (see below on these finds) (Fig. I, nos. 3-12; Pls. 13, 43). This stratum was probably lying on top of the same tufa lumps as were found on the other side of the wall. Although it was not possible to reach this level by the end of the excavation campaign in 1997, the situation clearly resembles the pavement recorded in the area south of wall h.

Chronology
With regard to the chronology of the different road phases we have little hard data. There is, for example, no clue as to the date of the lay-out of the early road, the paving of which seems to have been laid directly on top of the virgin soil. Although only a few datable artifacts have been found on top of the paving, these may still help us to estimate the length of time over which the road was in use. At the very least, they may supply a date for the last moment of its existence.

The best information so far comes from section III, where the earlier mentioned concentration of pottery and tile fragments was found amongst the pebbles to the south of wall c (Pls. 13, 43). Leaving aside many undiagnostic fragments such as Archaic coarse ware pottery and c. 40 red Archaic roof-tile fragments, these finds comprise a dozen Iron Age impasto fragments, a large fragment from the wall of an Etrusco-Corinthian jug and 11 bucchero sherds of different quality (among them a kantharos handle) and 7 fragments of so-called Campanian roof-tiles. Apart from the impasto fragments, the general impression given by the finds is Archaic. If we assume that the finds were indeed related
to the earliest road, either as an integral part of its pavement or as incidental fragments scattered over its surface in the course of time, we can safely assume that the road was used during the larger part of the sixth century. As said above, the most recent finds also supply a date for the last moment the road was in use. At the same time they provide a terminus post quem for the lay-out and construction of the road on top.

The pottery fragments cannot be dated precisely as they occur throughout the whole sixth century. For the moment, therefore, the Campanian tiles appear to be the most helpful dating tool. In Satricum, roof-tiles of Campanian fabric are associated with the first monumental temple (Temple I), which is generally dated 540/530.40 Thus, the presence of the Campanian fragments on the surface of the earliest road implies that the road was still in use around 540/530 and presumably for some time after that (allowing for a reasonable time-lapse between the original use of the tiles on the roof and their secondary appearance on the road). Given the absence of the Late-Archaic roof-tiles associated with the next monumental temple (Temple II), a date of 500/480 can here be cautiously proposed as the lower limit of the period during which the road fell out of use and was subsequently rebuilt. The Late-Archaic terracottas have been firmly dated on stylistic grounds to 500/480.41

The stratigraphy and finds related to the second road appear to support the proposed chronology. No Late-Archaic terracottas have been documented in its layers.42 Furthermore, the fill between the side walls revealed predominantly Archaic coarse ware pottery and very worn fragments of red Archaic tiles.

An important find with regard to the chronology of the second road was encountered in the foundation trench of wall c, in section I. A nearly intact carinated bucchero bowl was here found against the outer side of the lowest block in the wall (Fig. I, cat. no. 2; Pls. 14-15).43 Many parallels for this rather common type of bowl can be cited. The best, so far, are found in Rome and in Acquasparta (Etruria), both dated to the second half of the sixth/beginning of the fifth centuries.44

The bowl supplies a terminus post quem for the construction of the second road. It had clearly ended up in the foundation trench before this was covered by the roof-tiles of the gutter. Because of its position and its relatively intact state, we might suspect that the bowl had some special significance, perhaps as a propitiatory sacrifice to safeguard the

40 This date is linked to the closing date of Votive Deposit I, which was enclosed in the substructures of Temple I. See Knoop 1988, 205-207, 214-216, for the attribution of the Campanian roof-system to Temple I. Ibidem, 196 and 228-229 (Appendix B, 'Fabric 2'), for a description and petrographical analysis of the clay of the Campanian terracottas.
41 See Lulof 1996, 207-208, on the dating of the Late-Archaic decorative terracottas.
42 As will be shown in the next chapter, some Late Archaic tiles and many vessels manufactured in a similar Late-Archaic fabric do occur in the dump stratum on top of the road (Ch. 3.2.1).
43 For the first publication of the find, see Gnade 1997b, 96. The bowl is of a quite common type which occurs in Rome and in southern Etruria throughout the sixth and early fifth centuries. See Rasmussen 1979, 124, pl. 41, 248 (bowl type 1) (from S. Giuliano) with a date in the first or second quarter of the sixth century. Cf. specimens from S. Giovenale (I. Berggren, S. Giovenale I.5). On the carinated bucchero bowls, see Catena nel Lazio 1981, 183 (Lavinium), with parallels.
44 For Rome, Via Sacra, see Gjerstad I, 93, 97, figs. 122a, 142 (a complete specimen associated with a Italo-Corinthian kylix; size of bowl: Diam. 15.5; H. 6); for other parallels in Rome, ibidem, 99, fig. 82; Votive Deposit at S. Maria della Vittoria, Gjerstad III, 147, figs. 96, 37; Diam. 15; Gjerstad IV.2, fig. 115, 10. For Acquasparta, see D. Monacchi in NSc 1988-89, 91-92, figs. 5.3, 6.3 (Diam 16.5; H. 5.2, tomb 1).
foundations of the road. A comparable ritual function can perhaps be attributed to another find recorded in the same foundation trench (this time in section III). Immediately under the stratum of broken roof-tile fragments which originally formed the gutter, the upper part of a jar was found. The jar is made of a densely tempered orange coarse ware (the filler of which contains many augite particles) and has a flaring rim decorated with two concentric grooves. (Fig. I, cat.no. 1; Pls. 16, 43). This type of jar and decoration have a long tradition covering the late seventh and sixth centuries. However, the combination of the shape with this particular fabric points to a date in the last quarter of the sixth century.

The jar was found broken in fragments but, like the bucchero bowl, constitutes a remarkably large artifact in the predominantly empty upper layers of the filling of the foundation trench. A similar phenomenon has been recorded in the foundation trench to the north of wall d', in the eastern part of the excavation. Here several small clusters of pottery (mostly large pieces of small jars) were found at regular distances, level with the top of the road’s foundation wall.

Additional support for a construction date for the second road in the last quarter of the sixth century is offered by the roof-tiles used in the gutter encountered along the south side of wall c. All the tiles belong to type II, whose first appearance in Satricum and other places (such as Acquarossa) has been set at 550, after which they are manufactured continuously for more than fifty years. Again assuming that the tiles were reused after spending some time on the roof (an average of one or two generations has even been suggested) the date of their secondary disposal can safely be set in the last quarter of the sixth century.

The evidence presented above supports the conclusion that the monumental rebuilding of the road took place in the last quarter of the sixth century. It can be argued, however, that this period should be narrowed towards the end of the century and that the construction of the road was closely linked to that of Temple II. In my view the large-scale rebuilding of the road is best explained as part of the town’s Late-Archaic building programme, which was centered around the second monumental temple. Such a building required a proper and worthy approach.

Quite apart from the clear correspondence in their monumental appearance, the road also matches the Late-Archaic temple from a technical standpoint. Similar red-brown tufa blocks were used in both projects, for example. It is also clear, based on what has so far been discovered, that the ancient road was constructed with the same degree of care as the temple. This is visible, for example, in the almost equal heights of the foundation walls, their neatly hewn blocks of very regular size (c. 0.60 x 0.80 x 0.50 m), and the attention paid to small details such as the regular insertion of a header.

45 Gnade 1997b, 97. Cf. also the acropolis for a possible parallel. An almost intact, small bowl was here found next to wall b', near to its corner (Maaskant-Kleibrink 1987, 48, Fig. 17; Cat. p. 153 for illustrations). Cf. Chiaramonte Treré 1986b, 79-89, on building offerings in Civita Tarquinia; esp. 87-88, on the offering of a fifth-century olla with bronze fragments. Cf. also eadem 1986a, 178-186. Cf. also Strom 1993, 115-117 for a similar phenomenon in Pontecagnano where two vases, which originally formed a drinking service, were after use deliberately cut into halves and placed in the foundation trench of a building from the late fourth century (with reference to comparable practices in the Greek world, Wells 1988). For a survey of different kinds of Greek building offerings and foundation deposits and on their interpretation, see Zeis 1994.

46 See Knoop 1992, 89-98, on the three types of roof-tiles encountered in the graves of the Southwest Necropolis.
Allied to considerations of decorum, another more practical reason must also have played a role in such a large-scale rebuilding scheme. As has been said, a natural depression in the land had been used for the original lay-out of the road. Lying as it did at the bottom of this depression, at a fairly deep level when compared to the two sides, the road must often have flooded during heavy rainfall. Due to the impermeability of the virgin soil, rain-water would not have easily drained and the road would have needed a few days of sunshine to dry out. This must have caused the same kind of regular inconvenience that we experienced during the excavations. The decision to rebuild the road completely and to substantially raise its level is therefore quite understandable. This explanation receives some support from the excavation baulks left on top of the pavement. These demonstrate clear traces of what seem to be mud and sand sediments, immediately on top of the pavement of the earliest road (see above, for the clay-like layer underneath the filling of the second road. See also Pl. 3). Further, the finds in the sediments and in the lower pavements (both pottery and bone fragments) often exhibit levigated surfaces, apparently caused by regular contact with water.

Parallels
Both the construction technique and the various types of pavement immediately call to mind those of the central road on the Satricum acropolis in front of the temples, which was excavated at the end of the nineteenth century. Here too the road is constructed in a deep natural depression in the virgin soil, which reaches a maximum depth of 3.30 m. Recent research to confirm the road’s existence has led to the discovery of three different road-building techniques, which were linked by the excavators to three consecutive building phases: Orientalizing, Archaic and late fifth century. A thick layer of closely packed volcanic pebbles, bordered on the south by a curb wall of headers (wall 76), has been identified as the Orientalizing phase. This road was documented for a stretch of about 6 m on the north side of Votive Deposit II, and has been interpreted as the western continuation of the road in front of Temple II. The Orientalizing date was based on the pottery finds among the pebbles, which unfortunately have not been published. As in the Poggio dei Cavallari, the pebble road is lying directly on the bottom of the natural depression. According to the excavators the road was repaved in the Archaic period with a layer of tightly packed tufa chunks. It was bordered on the north by the monumental curb wall which was excavated at the end of the nineteenth century (walls 82 and 89). The western stretch of this wall consists of a row of red-brown tufa headers, the eastern

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47 Cf. Colonna 1968, 75-68 for a comparable situation in the case of the Cerveteri-Pyrgi road. Here a calcareous layer ('una lente di ghiano e sabbia cementata') covering the original Etruscan road level has been explained as a sediment caused by rainwater seeping down from above. See also Quilici 1989, 461, n. 16.
48 Barnabei/Mengarelli 1896, 193-194, with plan on p. 192.
49 During the excavations in the area in front of the latest temple, conducted by the Dutch Institute in Rome, a pebble pavement belonging to this road was verified, as were the remains of the monumental curb wall bordering the street to the north (to be published). Excavators from Groningen University have excavated parts of the same road in the area to the northwest of the temples (Maaskant-Kleibrink 1991, 61; *eadem* 1992, 18-28; *ibidem* 20-21, on the interpretation of the nineteenth-century data in relation to the results of the present excavations; Bouma 1996, II, 32-34).
50 Maaskant-Kleibrink 1992, 21, 23-25 (with detailed description of wall 76 on p. 24): excavation square K10; fig. III; colour pl. 2; Bouma 1996, II, 32, figs. 28-29, 31. The orientations given are those used by the excavators (see above, n. 18 on the different use of orientations).
52 Barnabei/Mengarelli 1896, 193, with plan on p. 192.
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stretch of a row of stretchers. The Archaic road was the first road to run across the acropolis. Another stretch of it (of about 20 m), which consisted of a thick layer (0.30 m) of brown tufa chunks, was unearthed in the area southeast of the temple ruins.53 This closely resembles the two pavements encountered in the Poggio dei Cavallari: *i.e.* the Archaic pavement south of the *contraforte* wall h, and the pavement north of the road associated with walls *e-f* and identified here as a side-walk to the Late-Archaic road (see above).54

The north road was repaved for a second time towards the end of the fifth century, when the western stretch was paved with irregular chunks of white and brown tufa, plus debris from the roofs of Temple I and II and a small quantity of fragmented pottery. At the same time, a new and identically paved road was laid to the south of the deposit.55

Another stretch of Archaic road has been unearthed along the west side of Votive Deposit II. This was documented for a length of almost 60 m. Its pavement consisted of white and brown tufa chunks, pebbles, sherd s of sixth century impasto pottery and fragments of architectural elements of Campanian type.56

Although the roads themselves are technically similar, different chronologies have been attributed to the respective road building phases on the acropolis and Poggio dei Cavallari. The most striking difference is that the excavators of the acropolis road did not identify a Late-Archaic phase or a repaving of the Archaic road, but did define a late fifth-century phase. In their reconstruction of the information given in the nineteenth-century excavation report, the road in front of the temples and bordered by the monumental curb wall 82/89 was identified as an Archaic road attributed to the period of Temple I. They further concluded that it had still been in use at the time of Temple II.57 No finds are presented to support this Archaic date, however.58 There should therefore be little objection to a reattribution of the road in front of the temples to the period of Temple II.59 Such a reconstruction would be supported by the association with curb wall 82/89. Indeed, the

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53 Maaskant-Kleibrink 1992, 21-22, 28; excavation squares F 18/19; fig. IV; pl. 5; Bouma 1996, II, 32.
54 The pavements in the Poggio dei Cavallari consist, however, of white tufa chunks. But it should be noted here that photographs of the pavement of the stretch of Archaic road southwest of the sanctuary give the strong impression of white tufa chunks (*Cf.* Maaskant-Kleibrink 1992, pl. 5; Quilici 1997, fig. 3).
55 Bouma 1996, II, 32, and fig. 28 showing he sequence of three pavements; on the south road, ibidem, 23-29, figs. 18-32.
58 With regard to the continuation of this road in an easterly direction, it is even explicitly reported that 'the thick layer of chunks of brown tufa did not contain a single fragment of pottery, roof tiles or antefixes' (*Maaskant-Kleibrink 1992, 22*).
59 *Cf.* also Quilici 1997, 76, fig. 3. Quilici dates the last road phase (dated by the excavators to the late fifth century) to the end of the sixth or the beginning of the fifth century. The photograph, however, is of the pavement southwest of the sanctuary which is explicitly identified by the excavators as an Archaic pavement attributable to Temple I (despite the absence of finds). Quilici appears to be either confused or to consider this particular stretch of road as indeed identical to the final repavement of the road in front of the temples. Some support for the latter reconstruction is provided by a photograph of a section through the road north of Votive Deposit II, published by Bouma (see Bouma 1996, II, fig. 28, on p. 33). This shows the sequence of three pavements above each other. The upper pavement (the one dated in the late fifth century on account of the material found embedded in it) appears to bear a strong resemblance to the (undatable) stretch found southwest of the temples. It should be further noted that the nineteenth-century excavators interpreted the architectonic debris found on top of this road as a dump used to fill in the depression and not as an actual pavement (*cf.* also Maaskant-Kleibrink 1992, 20-21).
materials and construction of this wall had already been recognised as similar to those of the *peripteros* of Temple II in the nineteenth century.\(^{60}\)

Due to the absence of published finds we cannot verify the Orientalizing date suggested for the pavement of the earliest road phase. This consisted either of large volcanic pebbles or of a thick layer of densely packed pebbles that covers half the block of a seventh century curb wall (wall 76). As has been shown, a similar pavement and side wall were brought to light at the bottom of the depression in the Poggio Cavallari, south of wall \(h\) (Pl. 11). In this case the pebbles appeared to be covered by a more substantial pavement of white tufa chunks, which carried traces of wheel ruts.\(^{61}\) Although, a chronological distinction between these two pavements is possible, there is no evidence for it. Both have therefore been attributed to the Archaic period, either as succeeding phases or as belonging to one and the same pavement, *i.e.* as a preparation layer and the actual pavement. In my view the latter possibility is the more plausible and could also be applied to the situation on the acropolis.\(^{62}\)

Outside Satricum there are few roads with which the Late-Archaic road in the Poggio dei Cavallari can be compared. This may be largely due to the fact that many excavations still await publication. Thanks to the thorough work of Lorenzo Quilici, however, we are well informed about the ancient roads of Italy and in particular about construction techniques.\(^{63}\) Besides an exhaustive survey of all the known roads, he provides much useful technical information which can be compared with the data collected in the excavation of the road in the Poggio dei Cavallari.

It appears that many Archaic roads were still in use in Roman times.\(^{64}\) In almost all the roads presented, the earliest tracts lie at a fairly deep level or in ditches. The depth is explained as the hollowing out of the ground caused by continuous use over a long period. This process only came to an end when a road was raised and provided with a regular pavement.

It should further be noted that a typical feature of the Roman road is the side walls, the *crepidini*, which border the pavement on two sides, often slightly elevated above its surface. This technique also appears in many Archaic roads.

Another recurring feature is the filling laid in the space between the side walls in order to provide the pavement with adequate drainage. Most early roads are also provided with some kind of drainage system to carry off rain water, such as ditches running parallel to the side walls. It thus seems clear that Roman road engineering had its roots in Archaic times.

\(^{60}\) Barnabei/Mengarelli 1896, 193.

\(^{61}\) Cf. identical traces in the pavement of the acropolis road on the nineteenth-century plan published in Barnabei/Mengarelli 1896, 192.

\(^{62}\) Cf. the Archaic road stretch in Nazzano (southern Etruria), for a similar arrangement, with different layers of pavement on top of each other. In this case they have also been identified as preparation layers for the actual pavement (*Archeologica nella Tuscia* 1982, 158-162, pl. LXIII, 1)

\(^{63}\) Quilici’s most recent publication on this subject appeared in 1997 as a contribution to the exhibition catalogue *Carri da guerra e principi etruschi* (Quilici 1997, 73-82). Here he examines roads from the Archaic period in Italy. In 1989 he had published a survey of the ancient roads in Etruria (Quilici 1989, 451-506). This was followed in 1992 by an article on the development of the technical aspects of road building in Central-Italy, a contribution to the volume *Technica stradale romana* (Quilici/Quilici Gigli 1992).

\(^{64}\) Quilici 1992, 21-22.
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A road from the Archaic period which deserves to be cited as a one of the best parallels for the Satricum road (partly because of its great width - more than 10 m) is the monumental road between Cerveteri and its harbour Pyrgi, which remained in use until the imperial period.

In 1967 some sections were excavated during an emergency excavation. These revealed side walls of large tufa blocks (c. 0.95 m in length) and two successive paving phases: a first, early Archaic pavement (10.20-10.80 m wide) situated at a depth of c. 1 m and composed of pebbles, sand and clay; and a raising of this Archaic road level in the first half of the fifth century, combined with a new pavement of stones and large pebbles. In cross-section, the road exhibited a strongly concave profile between inclined planes. The latter were identified as side-walks for pedestrians. A similar function has here been proposed for the remains of the pavement associated with walls e-f to the north of the Satricum road, at the northern end of section I (see above). The road remained in use until the imperial period.

In ancient Latium, the best parallel for the Satricum road (albeit less wide) is probably found in Acqua Acetosa Laurentina, on the periphery of Rome. Here a long road tract identified as the ancient via Lavinate has been uncovered over a length of c. 800 m, of which 500 m runs through the necropolis of the site and 300 m through the valley of the Acquacetosa. This road was in use from the eighth to the fifth centuries. The earliest phase consisted of a ditch c. 3 m deep, presumably hollowed into the tufa table by long and continuous usage. Around the middle or second half of the sixth century, a pavement (2 m wide) of different sized chunks of tufa was laid on top of the earlier tract. This revealed wheel ruts. The new road was not only provided with side walls (crepidini) but also with side-walks consisting of a battuta of tufa lumps, which are believed to have also improved the drainage. In one place where the road crossed a depression in the terrain, the side wall reached a depth of 1 m. It was built using a polygonal technique. A second wall, built with a pseudo-isodome technique, was also uncovered at a distance of 1.9 m from the side wall. Due to the more advanced building technique, this wall has been identified as a later, Late-Archaic restoration. An important difference between this and the Satricum road lies in the width, recorded at only 2 m.

A similar narrow width has been encountered in a complex of Archaic roads recently excavated at Tor de' Cenci. Here three roads have been brought to light, one of major importance with two smaller roads crossing it. Tombs located beside the main road provide a date in the eighth century for its earliest use. It continued to be used until the second century or later. The original road levels were found at the bottom of a hollow in the terrain, at a depth varying between 1.5 and 3.5 m. The levels appeared to have been raised twice (in total by about 0.30 m) during the Republican period. The original width of the road (c. 2.50 m) was at that time broadened to c. 3 m. The upper pavement consisted in one place of una rozza massicata in scaglie di pozzolana, and in another of a battuta of larger tufa lumps mixed with pozzolana. On the basis of the pottery found in one of the sections, the raising of the road level was dated to the mid-Republican period. Hereafter,

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65 Colonna 1967, 342-348; idem 1968, 75-87; idem 1970, 17, 639. Also Quilici 1989, 461, fig. 3.2-6; idem 1992, 26
66 For the preliminary reports on the excavation, see Bedini 1978, 30-32; 1979, 22, fig. 1; 1981, 254-255, figs. 1-3; idem in CatGrande Roma 1990, 171-173; for the résumé here presented, see Quilici 1992, 75-76 and idem 1997, 75.
67 But see Bedini in CatGrande Roma 1990, 172, who refers to a natural depression.
68 Quilici 1992, 19, n. 5. The height of the blocks of this later wall measured 0.45-0.50 m; their width and length varied.
at least two other raisings are recorded, the final one (dating to the second century) demonstrating the use of wooden posts inserted horizontally every 4.50 m in the side wall and the sides of the ditch to prevent erosion.

A third interesting parallel for the road in the Poggio dei Cavallari, again in Latium, is provided by a road tract at Tor Bella Monaca identified as part of the ancient road connecting Gabii with Rome via the town of Centocelle. Although no Archaic level has been recorded, its existence is assumed. Like the examples mentioned above, the road is situated in a depression at a depth varying between 1 and 3 m. The presumed Archaic level is covered by a pavement laid down in the second half of the third century. This covers a width of 4.40-4.70 m and is bordered by side-walls of large tufa blocks laid lengthwise. The road was provided with drainage canals, on one side hollowed out in the top of the side wall itself, on the other a ditch running along the outside of the wall. An interesting feature in relation to the Late-Archaic road of Satricum is the presence of blocks projecting from the insides of the walls every 12.30-12.80 m. A later pavement consisting of polygonal basalt blocks has been recorded on top. The width of the road was then reduced to 2.40 m, while the space remaining between the new pavement and the former sidewalks was provided with a battutta and became a side-walk.

A final parallel which can be cited here is a road in Aquarossa (Etruria). Unfortunately, it has not been published and all we have is a short description and three illustrations. The road connects zona F with the centre of the settlement. It is 4 m wide and bordered by large tufa blocks. These appear to be larger in the wall on the south side, probably due to its position along the flank of the hill. An interesting reference is made to its excellent construction, which consists of "un ottimo fondo costruito con pietrisco e pezzi di tufo che formavano uno strato resistente e compatto". This strongly recalls the compressed tufa stratum found against the bottoms of the lowest blocks of the road walls in Satricum. Three different road levels have been identified.

Conclusions
The discovery of the road in the Poggio dei Cavallari has greatly extended our picture of Satricum as an urban settlement and at the same time has provided important information about the level and development of technical knowledge during the sixth century.

Given the resemblances to the road phases documented on the acropolis, it is quite conceivable that we are dealing with a single main thoroughfare leading from the lower settlement to the acropolis. After ascending its northwestern flank, it here became a genuine Via Sacra running south-east in front of the temples. It even seems quite possible that this road was an extension of the main thoroughfare approaching Satricum from the

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70 Quilici 1992, 22-23, figs. 5-8, with references in n. 19.
71 This particular feature has been recorded in a number of other roads, most dating to the later Republican period. Cf., for example, the stretch of road excavated in Rome in the area of the church of S. Teresa in 1965 and identified as diverticulum a via Salaria Vetere ad portam Collinam (NSc 1969, 72-77). Cf. also a recently excavated stretch of the Via Flaminia near the Villa of Livia, in BCom 94, 1991-1992, 195-197, figs. 264-268; BCom 96, 1994-1995, 282-285 (with references in n. 5), figs. 112-115.
72 Östenberg 1975, 25 (description), 191, 193 (illustrations); Quilici 1997, 78.
direction of Ardea, passing first through the Northwest Necropolis and then through the walls of the town.  
As on the acropolis, a natural depression in the terrain was used for the original lay-out of the road in the Poggio dei Cavallari. A first pavement of brownish tufa chunks alternating with a pavement of pebbles was laid down at the bottom. This was covered by a more substantial pavement of white tufa chunks, probably during the Archaic period although there are no finds or stratigraphical evidence which offer an initial date. Given the chronological range covered by the pottery fragments found on top of this early road, we can assume that it was used during the larger part of the sixth century.

In the last quarter of the sixth century, the Archaic road was rebuilt: its level was raised and monumental side walls of tufa blocks were erected. The reasons for building the new road were twofold: one practical, related to drainage problems arising from the low-lying course of the Archaic road, and one prestigious, related to a general monumentalization of the town.

Parallels in Latium and Etruria suggest that the history of the Satricum road exemplifies a wider development in road building. Simple tracts of road become mature roads in the course of the sixth century, their construction reflecting a high level of organization and an equally high level of technical skill. Many of these roads constitute the basis of later Roman roads which in fact use similar construction techniques. The rebuilding and monumentalization of these roads accords with the general trend of architectural development during the second half of the sixth century. This is characterised by large-scale building projects and can be regarded as evidence of the culminating stage of urban development in the Archaic settlements of Central-Italy around the turn of the sixth century.

Within this general picture, the Late-Archaic road in Satricum still constitutes an exception in Latium because of its great width - nearly 6 m excluding the side-walk. This aspect is probably directly related to the road's function as the main artery of the town and/or to its connection with the Late-Archaic temple on the acropolis. The only other example exhibiting such a width is the road between Cerveteri and the sanctuary of Pyrgi, which must therefore stand as the best parallel.

It is probable that the rebuilding of the town was not limited to the road and the Late-Archaic Temple, but that it also encompassed defence works and houses along the main thoroughfare and elsewhere. Although most evidence relating to such structures has been destroyed, there are various indications of their original existence. On the one hand, there are traces visible on aerial photographs taken during the last twenty-five years of research. On the other hand, there are artifacts (pottery and roof-tiles) collected in surveys of the ploughed fields in the lower settlement area or found in the layers on top of the Late-Archaic road (see following chapter). The latter clearly indicate a continuity in the town's existence, although this aspect is perhaps better illustrated by the later history of the road. This too will be discussed in the next chapter (Ch. 3.2).

73 Barnabei/Mengarelli 1896, 199, reported that the necropolis was intersected by various roads, of which only two are indicated on the plan in their fig. 3. See the RAF aerial photograph of Satricum taken in 1936 for a clear view of the necropolis road (published in Castagnoli 1963, 504, fig. 1; Schmiedt 1970, pl. 21; Waarsenburg 1995, 41, pl. 6); cf. also the reconstruction of the road system in and around Satricum on a map of the Istituto Geografico Militare (IGM), made in 1936 and published in Waarsenburg 1995a, 39, pl. 4.2.
Introduction
In the early fifth century the settlement of Satricum appears to undergo a radical change in its pattern of occupation. The acropolis of the town, our main source of information for the preceding periods, has so far revealed no building remains which can be attributed to the Post-Archaic period. It appears as if all building activity came to an abrupt end after the construction of the monumental second temple (Temple II) and the related reorganization of the surrounding area (500/480). An even more radical change, suggesting a totally different use of the acropolis area, is implied by the recent discovery of a small necropolis along the so-called Via Sacra, at the southwest corner of the main temple (Ch. 3.1.2). Contemporary with the installation of the burial ground is a large deposit (mainly of pottery) laid out on the northwest side of the temple (Ch. 3.1.1). Although the presence of the deposit is not surprising (given the religious context) the presence of burials on the acropolis certainly is. Indeed, it is this feature, in combination with the absence of habitation remains, which underpins the theory that Satricum was abandoned in the early fifth century. According to this view, the settlement had changed, almost overnight, from a flourishing urban centre to a mere place of pilgrimage where all activity was centred upon the sanctuary. The presence of another necropolis, i.e. the Southwest Necropolis (Ch. 3.3), within the former boundaries of the town has been seen as confirmation of the theory, as has the absence of fifth-century remains in the rest of the town.

This rather literal interpretation of the archaeological record is, in my view, too simple. In this chapter I will try to show that the new discoveries on the acropolis and elsewhere in the settlement, as well as the apparent absence of fifth-century buildings, can be interpreted quite differently. As has been suggested on earlier occasions, there are good reasons for believing that the sixth-century buildings on the acropolis, and those which presumably existed in the rest of the town, remained in use during the fifth century. This idea was first based purely on the presence of fifth-century graves but is now supported by new evidence coming from systematic excavations, such as those carried out in the lower settlement in the Poggio dei Cavallari. The Poggio dei Cavallari is one of the few areas of ancient Satricum in which the highest contours of the ancient landscape have survived and it can therefore be regarded as the most important archaeological source for the changing face of the town in the early fifth century and beyond. Moreover, the mass of ancient artifacts recovered in this area adds considerably to our knowledge of fifth- and fourth-century pottery. Compared with the vessels recovered from the fifth-century graves and from the deposit on the temple hill (objects that were presumably imbued with a sacral or ritual significance), the artifacts found in the Poggio dei Cavallari constitute a different group of material altogether, representing a predominantly secular (i.e. domestic)

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74 See, for instance, Maaskant 1992, 36-37; Attema 1993, 226, 227-229.
75 Gnade 1997a, 51; cf. also Coarelli 1990, 151.
sphere. As such, the finds provide evidence for believing that the lower settlement area of ancient Satricum was indeed inhabited during the Post-Archaic period.

The key-site function which Satricum already holds for the Iron Age and Archaic period can, it seems, now be extended into the later history of the town. In contrast to the general scarcity of archaeological data encountered in other Latial centres, Satricum appears to offer a rich archaeological record which documents life, death and religion in the fifth century. However, while these remains undoubtedly confirm the continuity of the settlement into the later period, its nature and cultural character remain the subjects of fundamental disagreement.

In this chapter the three areas which have yielded Post-Archaic remains will be dealt with at length. The significance of the finds themselves will also be discussed, both individually and in relation to each other. We will start with the large deposit excavated on the acropolis (Ch. 3.1). Thanks to its prompt and detailed publication, this rich source of information has become fully accessible and can be studied in relation to the other find complex (i.e. the layers on top of the Late-Archaic road in the Poggio dei Cavallari), which will be dealt with thereafter (Ch. 3.2). Although the final publication of the archaeological remains in this area will still take some time, the present state of study is sufficiently advanced to allow for some tentative conclusions. The final section of the chapter covers the Southwest Necropolis, which has already been published but is now re-examined in the light of new discoveries, both in Satricum and elsewhere in Latium (Ch. 3.3).

3.1 THE ACROPOLIS

3.1.1 Votive Deposit II

In the 1980's a large deposit containing material dating from the early fifth to the late third centuries was excavated to the northwest of the temples of Mater Matuta. The following summary is based on the publication of the deposit which appeared in 1996. The deposit is laid out in a large, natural depression, some 60 m long, 15 m wide and 2 m deep. It is believed to have been filled with offerings over a continuous period of almost three centuries. In the earliest period the offerings consist mainly of simple vessels for cooking, eating, drinking and pouring. In the latest phase these are supplemented by terracotta votive objects. A relatively small number of spinning and weaving implements, bronze sheet figurines, jewelry, weaponry and coins make up the rest of the votive gifts. In total, some 2000 objects have been published.

According to the excavators, the deposit exhibits a clear stratigraphy. On top of a levelling

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76 The deposit was discovered and partially excavated by archaeologists of the University of Groningen between 1981 and 1991. It was published by J.W. Bouma in 1996. The deposit is the third of its kind on the temple hill. In order to distinguish the deposits from each other they have been conveniently numbered by the assumed chronological sequence of their contents: i.e. Votive Deposit I for the so-called Archaic Votive Deposit, Votive Deposit II for the newly discovered deposit and Votive Deposit III for the so-called Hellenistic Votive Deposit.
layer (layer 2), at least five layers of gifts have been distinguished (layers 3, 5, 8, 10 and 12), separated by layers of sand, tufa chunks, pebbles and architectural terracottas (layers 4, 6, 7, 9 and 11). In the first decades of the fourth century, the area was bordered by walls in the southwest.

The offerings encountered in the earlier layers (3, 5 and 8), dated between c. 490-375, are said to consist of distinct assemblages of pots, often associated or filled with charcoal and animal bones. These were apparently surrounded by tufa stones and fragments of architectural terracottas, many of which are of the type associated with the Late-Archaic temple. Each assemblage is reported to contain a basic set of pottery. The average diameter of the assemblages is around 0.60. The vessels and their contents have been interpreted as part of a ceremony in honour of the goddess. It is assumed that ritual meals were held near the deposit, after which the vessels and part of the meal were left behind. Unlike the Archaic and Hellenistic Deposits in Satricum, this 'intermediate' votive deposit is not regarded as a dump of votive material, but as a primary site containing a gradual accumulation of votive gifts.77

The upper layers, 10 and 12 (from c. 375 onwards), appeared to be different in character. According to the excavators, there were some concentrations of pottery deposited in the earliest phase of layer 10, but apart from these both layers now seem to consist largely of dumped votive material. Some anatomical votives and terracotta statuettes appear for the first time.

**Cultural context**

Votive Deposit II is generally considered the missing link between the 'Archaic' and 'Hellenistic' deposits on the temple hill of Satricum.78 According to the excavators, the deposit serves as a chronological intermediate and contributes greatly to the study of cult practices over a continuous period of almost seven centuries.79 In their view, all three deposits are associated with the cult of Mater Matuta.80

The excavators adhere to the principle that votive gifts (and their related rites) provide information on the social, economic and political organization of the society which produced them.81 They further assume that the gifts may also reflect the cultural background of the dedicants. For the later period, for instance, a correspondence is noted between the Roman occupation of the site and the upper layers of the deposit. The first appearance of terracotta votive gifts (which can be cautiously identified as 'Roman') seem to coincide with the moment that a Roman presence is historically recorded in the Pomptine region.82 At the same time, the shift from careful deposition of votive gifts

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77 For the excavation of the Archaic Deposit (Votive Deposit I) see Barnabei/Cozza 1896, 30-31; Barnabei/Mengarelli 1896, 190-191. For an extensive presentation of its contents, see the exhibition catalogue *CatSatricum* 1985, 40-46; 95-117. The final publication of this deposit is in preparation. On the Hellenistic Deposit (Votive Deposit III), see Barnabei 1896b, 99-102; 192-193; see *CatSatricum* 1985, 149-171 (on the material). This deposit was re-examined in four excavation campaigns between 1985 and 1989, see Heldring 1988, 207-209; Heldring 1990, 229-233.

78 For the history of the search for the missing votive deposit, see Bouma 1996, I, 35-37.


80 See Bouma 1996, I, 249-84, on Mater Matuta and the significance of the votive gifts from the individual deposits in relation to her cult.


82 The gifts are identical to those of new rural cult places set up by the Romans in the *Campagna romana*. These yield the typically standardized anatomical votive offerings which are also present in Votive Deposit III and which refer to the healing aspect of the goddess.
SATRICUM IN THE POST-ARCHAIC PERIOD

(layers 3, 5 and 8) towards large-scale dumping in the upper layers (from layer 10 onwards) is linked to a Roman presence in the region from about 400.\(^3\)

By analogy, the excavators believe that the cultural identity of the dedicants performing rituals in the earlier phase of the deposit (i.e. the fifth century) must be reflected in the earlier layers. By tracing elements of continuity in cult practices between the fifth century and the previous periods, they attempt to demonstrate a cultural connection between the dedicants of both eras, a connection which they relate to their supposedly Latin origin. The result is the reconstruction of a consistent Latin cult tradition over a period of more than four centuries (i.e. from the ninth century until c. 400). Corroborating evidence for the Latin identification of the dedicants is found in apparent similarities with cult practices performed elsewhere in Latium.\(^4\)

Comment

The discovery of Votive Deposit II adds a remarkable new dimension to the archaeological record of Satricum. Quite apart from its possible contribution to any reconstruction of the religious history of the settlement, the deposit substantially fills the gap in the material record for the fifth and fourth centuries.

However, with regard to the interpretation and cultural classification of the deposit, some critical remarks are in order. As mentioned above, the analysis of the deposit has been marked by a search for signs of ritual continuity in order to establish its Latin nature. The main arguments used to 'prove' such a continuity are closely related to the earlier, Archaic Votive Deposit buried in the substructures of Temple I. Resemblances apparently observed between this deposit and Votive Deposit II have been taken as strong evidence for invariant customs, thereby reflecting the continuous Latin character of the performed cult. Unfortunately many of these resemblances fail to convince. As I will try to show, some are rather speculative and others are even incorrect. They should therefore be viewed with suspicion.

This even applies to the interpretation of the site as a primary, open votive deposit. In my view, many of its features recall the so-called Hellenistic Deposit in front of the sanctuary. This deposit was filled with subsequent dumps of material, probably within quite a short timespan.

Since the interpretation of Votive Deposit II is fundamental to the reconstruction of Post-Archaic Satricum, we will now review in some detail the main points put forward by the excavators to establish resemblance (and therefore continuity) with earlier customs. At the same time, we will reconsider some of their conclusions regarding the stratigraphy and lay-out of the deposit.

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\(^4\) Cf. for instance, Bouma 1996, I, 219-220, on the traditional offering of jar and bowl as common elements in many Latial votive assemblages.
Proposed similarities between Votive Deposits I and II and supposed traditional elements in performed rituals

1. The open character of Votive Deposits I and II

Perhaps the most far-fetched idea hatched in support of ritual continuity is the proposed open character of both Votive Deposits I and II.

It is suggested that during the early stages of cult activity in Satricum, votive gifts were continuously deposited as primary offerings in the area behind the cult place, resulting in the gradual formation of the so-called Archaic Deposit (Votive Deposit I). This interpretation is based on various arguments. Firstly, that the good state of preservation of the vessels, in spite of their often thin walls, indicates their primary deposition. Secondly, that the chronological range of the Archaic votive material (which covers more than four centuries) is too large for a single dump at a single moment. Above all, however, the open character presumed for the Archaic Votive Deposit is linked to the disputed 'alternative' reconstruction of Temple I. This reconstruction consists of a drastic shortening of the ground plan of this temple and an arbitrary updating of its chronology to 580-540. It includes a walled-off deposit created at the rear of the temple, which is said to have received some 20,000 votive objects over a continuous period of more than four centuries.

The architectural improbability of this new reconstruction, both of Temple I and of an adjacent open votive enclosure, has already been remarked upon (see Ch. 2). Quite apart from the problem of limited space, there are also stratigraphical objections to the idea of Votive Deposit I being gradually formed behind the successive structures of the Sacellum and Temple I. There is, in fact, irrefutable evidence to the contrary: i.e. for the secondary arrangement of the deposit inside the substructures of Temple I. This was found during recent investigations of the foundations of the successive temples. The area behind the Sacellum (i.e. the presumed location of the walled-off deposit), inside the perimeter of the foundation walls of Temple I, revealed the remains of a levelling stratum consisting of white tufa chips and (mainly) fragmentary votive material from the same period as the votive gifts in the Archaic Deposit. This layer had apparently been laid down on top of the sloping surface of the virgin soil so as to create a horizontal level for the construction of Temple I. Despite the fact that some of the virgin soil had been scraped off, perhaps to prepare for the levelling stratum, the ground still revealed earlier features, such as pits, post holes and trenches, dating to the eight, seventh and sixth centuries. However, not a single trace of the Archaic Votive Deposit was recorded in the

83 Bouma 1996, I, 6, 61.
84 Bouma 1996, I, 61; see also Maaskant-Kleibrink 1992, 54, on the arguments surrounding the good state of preservation and the intactness of the thin-walled pottery.
85 Bouma 1996, I, 61, n. 182.
86 Maaskant-Kleibrink 1992, 16, figs. XLVII-III.
87 This view recalls that of Colonna, put forward in 1984 with regard to the original location of the Archaic Votive Deposit. According to Colonna, offerings had accumulated in the area behind the so-called Temple hut and the stone Sacellum which had replaced it. When Temple I was built the deposit was then incorporated into its substructures (Colonna 1984b, 398).
88 See De Waele 1997, 77-79.
90 See Heldring 1984, 98-100, on the levelling stratum; eadem, in CatArea Sacra 1985, 127-137, for the levelling stratum and a selection of its finds.
virgin soil, implying that the votive objects of Votive Deposit I must have been deposited at a level above the levelling stratum (and probably directly on top of it) and thus contemporary with the construction of Temple I.\footnote{Personal comment by B.H. Heldring; but see also the preliminary report of the excavations, Heldring 1984, 99. The position of the deposit on top of the levelling stratum would also account for the fact that some objects in the deposit seem to postdate the youngest finds in this stratum (which are two or three fragments of Ionian cups dating to the middle of the sixth century (published in \textit{CatSatricum} 1985, 127)). Cf. also Bouma 1996, I, 78.}

The investigations also revealed that the levelling stratum had originally been higher. Its upper surface, and in some places even the complete stratum, had been removed, presumably by the nineteenth-century Italian excavators searching for votive objects. They had probably reached the virgin soil in places where it was closest to the surface, as in the area immediately adjacent to the back wall of the Sacellum. In other places (for example, the area southwest of the cella wall of Temple II) the Italian excavators recognized the stratum and halted on top, where they encountered a concentration of votive objects in situ.\footnote{In the excavation journal, the custode R. Finelli gives a list of objects that were brought to light in this particular spot between 1 and 6 February 1896. Presumably this research was conducted less hasty than the one immediately following upon the discovery of the deposit, in the centre of the cells of Temple I, cf. Colonna 1984, 396, n. 5.}

To explain the largely fragmented state of the finds in the levelling stratum, the excavators suggest that, before the votive offerings were deposited in the Archaic Deposit, a selection was made between intact objects and broken or very small items. The latter would then have been dispersed in the levelling stratum, while the complete \textit{ex-votos} were deposited with some care, in order to keep them intact.\footnote{See Heldring 1984, 99; \textit{eadem}, in \textit{CatArea Sacra} 1985, 127.} The fact that most of the vessels remained well preserved until their discovery in 1896 is easily explained by their protected location: they were inside the substructures of Temple I and also covered by its floor. The broad time span covered by the votive objects is without doubt the result of their primary accumulation, which probably occurred actually inside the earliest cult buildings.\footnote{Suggested by B. Heldring.}

### 2. Continuity in the character of the votive gifts

The character of the offerings found in the deposits has also been presented as evidence for continuity. One example is the prevalence of pottery gifts, regardless of size, quantity or fabric.\footnote{Bouma 1996, I, 226-7, 274.} Vessels in miniature form are abundantly present in the Archaic Deposit during the first four centuries of the cult. From the sixth century onwards they appear in normal size, apparently becoming the basic element in the ritual for the next two centuries.

A further traditional element is seen in the prevalence in Votive Deposit II of the ordinary jar and bowl, vessels which the excavators present as the basic set of pottery (especially the jar) in all periods. A comparable prevalence of the same vessels is said to have existed in other cult places in Latium, whilst it is simultaneously argued that votive assemblages are almost absent for the early Republican period in Latium.\footnote{Bouma 1996, I, 219-20.} In spite of this contradiction, the observed similarity is taken as evidence for the traditional character of these vessel-types in Latial cult practices, and, at the same time, for the continuity of
those practices in Satricum.

Closely related to the supposed prevalence of the jar in all periods is the presumed continuity in food offerings. In Votive Deposit II, faunal remains (mainly those of sheep, cattle and pigs) have been recorded in close association with almost every assemblage throughout all the strata of the deposit.99 These offerings, encountered mostly in jars, have been linked to the ritual of first-offerings as imputed to the early stages of cult practice in Satricum. Symbolic offerings in miniature receptacles, presumably consisting of a first grain of corn, a first tooth, a pea, a bean or "even a small portion of meat" are seen as being repeated 'life-sized' during the fifth century, mostly in full-sized jars.100 By analogy with earlier practices, a combined offering (of a sheep, a cow and a pig) was now supposedly made, the remains of which were placed in Votive Deposit II together with the pottery used in the ritual.

As far as I can see, the suggested correspondence between the votive gifts of the two deposits in Satricum (not to mention their presumed resemblance to offerings elsewhere in Latium) is untenable. It should be noted, first of all, that the contents of Votive Deposit I differ completely from the contents of Votive Deposit II, both in character and composition. Although this may be partly due to chronological differences and to different economic circumstances, an undeniable disparity still remains. Some very marked differences spring to mind. There are, for example, the enormous quantities of fibulae and spinning and weaving implements, which with c. 3000 and c. 300 specimens respectively, constitute the largest groups of objects in the Archaic Deposit. These numbers are totally incompatible with the small quantities encountered in Votive Deposit II. Furthermore, the simple pottery shapes in the Archaic Deposit are mainly associated with drinking and pouring and not with solid food, while the total number of jars is very limited (c. 20 rim fragments, less than 0.1% of the total number of objects!101

Because of their specific time-related connotations, the votive gifts in the respective deposits cannot, in my view, be compared. It is surely fair to assume that the offering of a vessel in the seventh century signified something quite different than the same offering in the fifth century.102 Equally, the fixed combination of the full-sized jar in Votive Deposit II with other vessels in the domestic repertoire lends this jar a priori a different significance to that which might be attached to the miniature receptacles in Votive Deposit I. The explicitly votive nature of the miniatures, which is directly associated with the phenomenon of first offerings, is essentially different from the nature of a domestic pottery set containing the remains of a ritual meal.

Furthermore, the jar, in its primary role as a simple container of all possible contents, solid and liquid offerings alike, is far more universal in its occurrence than the Latial theory requires.103 As to presumed Latial resemblances in the faunal offerings associated

100 The ritual use of the jar for food offerings is seen as a habit that 'was strongly practised in Latium from the late Archaic, but especially from the second half of the fifth c. onwards' (Bouma 1996, I, 223); on the shift from miniature to full-sized, see ibidem, 274-75.
101 These are only a few of many divergent elements. For a detailed discussion, see the final publication of the Archaic Deposit by D.J. Waarsenburg (in preparation).
102 Cf. Bouma 1996, I, 267-275, for the shift from 'nature-centred' to 'man-centred' ritual, a complex and, in my view, not very convincing construction devised to bridge the main discrepancies between early (Iron Age and Archaic) and later (Post-Archaic) religious expression and perception.
103 Cf., for instance, the examples mentioned by Bouma from outside the Latial region (Bouma 1996, I, 220).
with this particular vessel, it must be noted that there is barely any information available on the contents of offered jars. According to the excavators, in the few cases that faunal remains or organic material have been found, no direct relationship has been established between the remains and the jars (see below, on the faunal remains).  

3. Food offerings or Suovetaurilia

According to the excavators, faunal remains (mainly of cattle, sheep and pigs) have been encountered in all layers of the deposit, in close association with almost every assemblage. These animal offerings have been tentatively linked to the Roman sacrifice known as the suovetaurilia, the combined offering of *sus* (pig), *ovis* (sheep) and *bos* (bovine). They interpret the practice of animal sacrifice as a Latial custom, recurring in other cult-places in Latium. It is, they say, already present in early times when cults still had a pastoral and rural character, and survives into the age of urbanised cults. Although evidence from Latial cult-places is scarce and largely fragmentary (due to the frequently unspecified nature of the animal bones), it is still taken as matching the faunal remains in the Satrican Votive Deposit II. The cult place of S. Cecilia/Anagni is said to offer the best parallel for food offerings in jars. In this deposit, in the second half of the fifth century, sometime jars containing (unspecified) food remains and seeds were placed in small votive pits. These were surrounded by concentrations of charcoal, ashes and burnt animal bones, which strongly imply a relationship to animal offerings. The same cult place is considered a direct parallel for the custom of depositing votive material in clearly distinguishable assemblages.

Further parallels are said to be found in the cult-place of S. Omobono (on the Forum Boarium in Rome), where a similar prevalence of certain species is observed in the offerings. There is also some correspondence in the less frequently sacrificed animals. This adoption of the suovetaurilia should not be allowed to pass without scrutiny. Ritual animal sacrifice is indeed thought to have been widely practised in ancient communities. However, the record of animal offerings shows that by far the most common sacrifice was the sheep. This general bias is reflected in Votive Deposit II, where 79% of the remains are of sheep, compared with only 12.7% for cows and 7.2% for pigs. Yet in spite of these large disparities, almost every single assemblage in the Satrican Votive Deposit is said to have contained the fixed combination of a cow, sheep and pig, apparently revealing

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107 Bouma 1996, I, 228-31. As parallels, the cult places of Cassino (3 areas), Anagni/S. Cecilia and Rome/Lapis Niger and Castor&Pollux are given for the Iron Age and the Archaic period; Norba and Anagni/S. Cecilia for the Post-Archaic period.
108 All other parallels proposed for the ritual use of the jar as a container of food offerings are based either on isolated examples of a single jar containing animal bones or on reconstructions from indirect, literary or epigraphical evidence (cf. Bouma 1996, I, 223-226).
111 Bouma 1996, I, 233. Unlike the ritual recorded in Satricum, the sheep and pigs offered in S. Omobono were usually complete specimens or large pieces of carcass.
a triple animal offering which is then interpreted as the core activity in the ritual. Close study of the various assemblages, however, reveals a much less clear pattern than this, and one that corresponds far more closely with the percentages usually encountered in specific animal remains. These observations cannot be said to support the identification of these offerings as *suovetaurilia*, which is a very specific ritual with very distinct historical, cultural and cultic implications.

So far Satricum is the only Latial site to apparently offer an archaeological record for the systematic practice of the *suovetaurilia*. All comparisons with other cult places in Latium are less than satisfactory. Although sacrificial parallels have been suggested, all differ considerably from the Satricum offerings. In most cases these parallels consist of small, single offerings, often in votive pits. These are far more similar in character to the Iron Age votive pits in the Satricum temple area (to which they do indeed offer a direct parallel) than to the large-scale offerings in the enormous deposit.115

As for the resemblances observed between the faunal offerings in the earliest cult practices associated with Votive Deposit I and those recorded in Votive Deposit II, one has to say that these are rather speculative. For instance, no faunal remains were ever encountered among the contents of Votive Deposit I stored in the Villa Giulia, nor is there any evidence to suggest that the Italian excavators found any. Although faunal offerings may well have taken place, it seems rather far-fetched to first associate the more than 2,500 miniature vases (usually related to first-offerings) with food and drink offerings and then to equate them with the jars in Votive Deposit II which contain meat offerings. It should further be noted that similar miniatures, though few in number, occur side by side with the normal sized vessels in Votive Deposit II.116

Finally, it is surprising to find the custom of the three-animal offering, more than once described as a Latial custom taken over by the Romans, also referred to as a phenomenon encountered throughout the Mediterranean basin.117

Reflecting on the above, we can conclude that the arguments used to support a specifically Latin character for what was presumably a universal custom of food-offering, and to suggest that the ritual observed in Satricum was the forerunner of the official Roman state offering, are not very convincing. The links, in my view, remain far too speculative.

In conclusion, it may be instructive to note that these particular animal remains have also been encountered among the mass of pottery finds on top of the Late-Archaic road. Here they have been interpreted as part of an enormous dump containing food refuse, the remains representing nothing more than the daily repertoire of food. In fact this dump layer, in this and other respects, exhibits remarkable similarities with the votive layers of the deposit, especially layer 8 (see below and Ch. 3.2).

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113 It is, in my view, misleading to explain the striking discrepancies between the species, not to mention the occurrence of less than three animals in a large number of the assemblages, as the result of "poor preservation and incomplete sampling" (Bouma 1996, I, 233). The proportions of offered species are more or less consistent in each votive layer. On the general distribution of animal species in the assemblages, see Prummel in Bouma 1996, I, Tables 4 and 5, 452-454.

114 The observed differences are explained as variations on the main theme, see Bouma 1996, I, 280.

115 On the offerings recorded in small votive pits, see Stibbe 1980, 175; CatSatricum 1985, 36-37.


4. **Architectural terracottas as elements of religious continuity**

A key argument which is taken to underlie the Latinity of the dedicants is that of the ritual re-use of architectural terracottas attributed to the various temple buildings. Regardless of their appearance, these terracottas are said to have formed an intrinsic part of the votive assemblages. Fragments of roof tiles are observed surrounding the votive gifts, while a special position, often in the centre of an assemblage, was apparently reserved for the painted or decorative pieces.

I can see no strong grounds for believing that the terracottas in the assemblages had been intentionally, let alone ritually, re-used. Likewise, there is little reason to ascribe any purely Latin connotation to their secondary use. Indeed, the numbers of decorative terracottas actually recorded in relation to the assemblages is rather limited, especially in the first two votive layers. The few fragments encountered in these layers are in fact remarkably small and worn. Moreover, it is only from layer 8 onwards that larger architectural terracotta fragments other than plain tiles have been recorded. Considering the rich body of decorative material that must have been available (see below), the pieces appear to have been selected quite at random. It should further be said that, apart from the terracottas identified as part of an enclosure of votives or as supporting a vessel, thousands of other terracotta pieces, mainly plain tiles, have been found dispersed in each votive layer, amounting to a total of 2,796 Dark Red fragments, 374 Campanian fragments and 15,958 Late-Archaic fragments in the whole deposit (see Table 1). The excavators give no explanation for the presence of these enormous numbers. Given the presence of a comparable number and variety of stones in each layer, it seems reasonable to explain these terracottas in terms of a large-scale cleaning or levelling of the temple area. The decorative fragments would presumably have ended up with the rest.

A more or less comparable situation has been encountered in the Poggio dei Cavallari, where the Late-Archaic road appears to be covered by a dump layer consisting of large amounts of pottery fragments, large roof-tile fragments and all kinds of stones (see below, Ch. 3.2). The pottery, identical to that in Votive Deposit II, often included large fragments and even a few nearly complete shapes. It will be argued below that these finds are indeed the result of a clean-up of the area, following the destruction of the surrounding buildings.

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119 Layer 3 contained five small decorative pieces: one female head, probably of a (non attributable, Ionic?) antefix (AE 16), two very worn antefix fragments of heads of Late-Archaic satyrs (AE 64, one not catalogued) and two tiny pieces belonging to revetment plaques of Late-Archaic fabric (AE 93, 104); layer 5 yielded only three small fragments: one of a tongue-framed Campanian antefix (AE 26) and two fragments of Late-Archaic revetment plaques (AE 73-74).
120 The enormous numbers of stones occurring in all layers in the deposit, votive and closing layers alike, have been little discussed. In most cases no explanation is given for their presence. Votive layer 5 contained c. 400 tufa stones and more than 1100 pebbles. Votive layer 10 yielded c. 3000 large brown tufa blocks (some with worked sides), 600 white and 300 green tufa stones, and c. 400 pebbles. Votive layer 12 yielded a total of 5348 irregular tufa stones.- 4334 brown, 791 white and 223 other - , and some 1000 large pebbles. For votive layers 3 and 8, despite the presence of stones of all kinds and considerable numbers of pebbles, no specifications are given. Reference to the stones is made only in connection to their function as borders for the assemblages. Pebbles are recorded in votive layer 8, next to wall 94, in the tufa grit that separated the layer from votive layer 3. Closing layer 11 contained c. 500 large tufa blocks of all colours, plus a large quantity of pebbles (the latter are mentioned in the discussion of layer 12).
Layer/date | Total | Dark Red | Campanian | Late-Archaic | % | % | %
--- | --- | --- | --- | --- | --- | --- | ---
3 - 490/480-450 BC | 444 | 161 | 11 | 272 | 36 | 2 | 61
5 - 450-440/430 | 454 | 134 | 2 | 318 | 30 | 1 | 70
8 - 440/430-375 | 5.118 | 750 | 153 | 4.215 | 15 | 3 | 82
10 - after 375 - dump | 3.595 | 199 | 75 | 3.321 | 6 | 2 | 92
11 - after 375 - dump | 5.481 | 858 | 120 | 4.503 | 16 | 2 | 82
12 - closing layer | 4.035 | 694 | 13 | 3.329 | 17 | 1 | 83
19.127 | 2.796 | 374 | 15.958 | 15 | 2 | 83

Table 1. Distribution of architectural fragments from Votive Deposit II, per stratum and Group

With regard to the Late-Archaic architectural terracotta pieces, which constitute by far the largest group of terracottas in Votive Deposit II, it is interesting to note that the excavations of the so-called Hellenistic Deposit (Votive Deposit III) revealed a similarly large number of fragments, both at the bottom of the deposit and in its upper layers. These also have been explained in terms of a secondary dump of material thrown into the deposit (see below). An even larger number of Late-Archaic terracottas was encountered outside the deposits, however. Many pieces have been found dispersed over the entire temple area, not only in the direct surroundings of the sanctuary but also embedded in the surfaces and on top of the roads to the north and south of Votive Deposit II. This applies especially to the majority of the known decorated fragments. Compared to the quantities found outside the deposits, the total number of decorative elements from the Late-Archaic temple recovered in Votive Deposit II is in fact relatively small. In the earliest layers (3 and 5), they are quite negligible. An intentional ritual function seems therefore unlikely.

The conclusion should surely be that the presence of architectural terracottas in the deposit must have been far more a matter of coincidence than ritual intention. Of course it is possible that such items possessed an intrinsic sacred value through their original setting on one of the temple roofs, but it is probable that the whole area of the acropolis - in any case the immediate surroundings of the sanctuary - would have been regarded as sacred.

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121 Around 64% of the c. 17,500 architectural terracottas recovered in Votive Deposit III are of Late-Archaic fabric. In Votive Deposit II the figure is around 83% (15,958) from a total of 19,127 pieces (closing layer 11 included). According to R.R. Knoop, the two deposits yielded approximately the same percentages for Late-Archaic decorative pieces: 87% of a total of 115 decorative pieces in Votive Deposit II, and 79% of a total of 252 decorative pieces in Votive Deposit III.

122 Cf. Lulo 1996, 3-6 on the find-circumstances of the architectonic terracottas, esp. those fragments belonging to the Late-Archaic terracotta statues. See Bouma 1996, I, 22-35, for the report of the excavation of the roads bordering Votive Deposit II and for references to various terracotta finds. The road to the south of the deposit, which is dated c. 400, yielded by far the largest amount of Late-Archaic figured pieces: 10 fr. of antefixes, 15 fr. of revetment plaques, 19 fr. of sima and crestings, 11 fr. of large statues and 2 fr. of columna- or mutulus plaque.


124 Cf. Bouma 1996, 299, on the cat. nos. of architectural elements - large tiles included - encountered in the assemblages; the architectural elements from closing layer 11 are not included.

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deposits (including the most significant decorative pieces) have been encountered.

**Votive Deposit II as a missing link**

The importance accorded to Votive Deposit II relies, amongst other things, on the claim that it fills in the chronological gap between the two other deposits on the temple hill. However, in the diachronic interpretation of the cult (which requires evidence for continuity of custom) the existence of a gap of some 40 years between the two deposits has been quietly forgotten.\(^{125}\) It seems that the practice of votive offering comes to a sudden halt after around 540/530, the closing date of the Archaic Votive Deposit, and is only resumed around 490/480 or (if we rely on the earliest fixed pottery dates) somewhere in the mid fifth century (see below on this discussion).\(^{126}\) This hiatus is surprising, given the large-scale reorganization of the sanctuary, the levelling of the area and the construction of the first monumental temple which apparently took place around 540/530 (my chronology).

The nineteenth-century Italian excavators were already convinced that there had to be another deposit containing votive gifts for the period between Votive Deposits I and III. Their efforts to search in the area between the sanctuary and Votive Deposit III was, however, without result.\(^{127}\) As far as the excavators of Votive Deposit II are concerned, the search is now at an end.\(^{128}\) Yet the possible existence of another deposit relating to the first monumental temple is still an option which deserves attention. As has been said, I do not agree with updating the building of Temple I to 580-540 (see also below), nor with the interpretation of the intermediate period between 540/530 and 490 as a phase necessary for the construction of Temple II. According to this view, there was a period of general economical recession (due to various wars) during which all resources were used for the construction of a new temple.\(^{129}\) Thus is the apparent absence of imported ceramics, for instance, explained. The same chronological hiatus is imputed between the destruction of the courtyard buildings and the initial date of Votive Deposit II.\(^{130}\) A similar discrepancy between sacred building and votive material is observed in a number of other Latial cult places and this has been used as confirmation of this theory. However, the comparison refers to the situation in the early fifth century and therefore does not hold.\(^{131}\)

My own view is that Temple I was built shortly after 540/530, on top of the levelling stratum (see below). Without doubt the temple was visited throughout its existence by dedicants offering gifts, as will have been the case with Temple II. Enough fragments of imported pottery have been discovered in and around the temple area to testify to such

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125 Cf. the short discussion on the absence of votive offerings for this period, in Bouma 1996, I, 84-85.
126 I refer here to three kylix fragments (K1-K2 and one not catalogued) in the earliest votive layer 3. These are the only items providing a fixed date.
127 Barnabei 1896, 167; Barnabei/Mengarelli 1896, 191.
131 See Bouma 1996, I, 85, with reference to 217, n. 9. This, however, refers to cult buildings and an absence of building activities in the fifth century.
offerings. Nevertheless, I would tentatively suggest that they indicate the existence of yet another deposit, the location of which remains obscure.

Stratigraphy and relative chronology of Votive Deposit II

As has already been mentioned, one of the most important conclusions to be drawn about Votive Deposit II relates to its primary character: *i.e.* the belief that its contents were gradually accumulated over time. This conclusion is primarily based on its vertical stratigraphy, in which clearly discernable layers have been interpreted as successive chronological strata. Almost each layer of *ex-votos* is said to have been covered by a closing layer before a new deposit layer was begun. In line with this reading of the stratigraphy, the layers have been provided with initial and final dates, neatly linked to each other and implying a continuous chronological sequence, regardless of the primary or secondary character of the layers. The presumed diachronic development from bottom to top is allegedly confirmed by the appearance of new vessel-types in every new votive layer and by signs of technical development in the fabric and surface treatment of the pottery.

Although this chronological framework appears to be solid, it seems to me that some critical comments would not be out of place, especially regarding the arguments upon which the initial date of the deposit is based.

It is generally acknowledged that architectural terracottas in a stratigraphical context can never provide the date of a specific layer, but can only be used as a *terminus post quem*. Yet in spite of this, the proposed dates of the earliest two layers of the deposit (*i.e.* levelling layer 2 (8th cent.-530) and votive layer 3 (490/480-450)), both seem to depend on the architectural elements encountered within them.

In the case of layer 2, the final date of 530 is linked to the occurrence of 14 fragments of Campanian rooftop attributed to Temple I. According to the excavators of Votive

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132 For a survey of the various fragments of imported pottery dating to the period between the two deposits, see Bouma 1996, II, 83, n. 275 (Attic fragments present in the Hellenistic Votive Deposit) and 84, n. 283. Cf. also *ibidem*, 34 and n. 12 on the presence of material in the Villa Giulia store rooms which post-dates the closing of the Archaic Deposit. This material, among which are 18 fragments of a black-glazed Laconian crater and many other black-glazed fragments, was recovered during investigations in the temple area conducted by Maria Santangelo in the 1950's. The recent re-examination of the Hellenistic Votive Deposit by the Dutch Institute in Rome, revealed another 30 fragments of Attic pottery dated after 540/530 (personal comment from C.M. Stibbe).

133 *Cf.* Stibbe 1978, who reports on soundings at the southeast corner of the temple.

134 It is repeatedly stated that the deposit contained a series of layers with votive gifts, which were nearly all covered by closing layers before the next votive layer was laid down (see, for instance, Bouma 1996, I, 309). This is easily translated into the rather simplified picture of a neat vertical stratigraphy, with separate layers of votive gifts alternating with layers of sterile earth, each of which serves as a bed for the following depositions, *cf.* Prummel, in Bouma 1996, I, 420. In reality the situation is far more irregular: for instance, the first levelling layer of sand (no. 4) is in fact lying next to the votive assemblages of layer 3, which it is supposed to cover (*cf.* figs. 33 and 46, Bouma 1996, II); equally, the second levelling layer (no. 6) only partly covers the assemblages of layer 5 (*cf.* figs. 48 and 53, Bouma 1996, II) and appears at the same time to be much smaller than the votive layer (no. 8) above it (*cf.* figs. 53 and 54, Bouma 1996, II). The latter, for that reason, is in many places lying directly on top of votive layer 3 (*cf.* sections 1-2, on p. 126 and section 4, on p. 128, Bouma 1996, II)

135 See Knoop 1997, 120-121; also Bouma 1996, I, 86, who agrees with this principle.

Deposit II, this temple was destroyed prior to 530.137

In the case of layer 3, the presence of Late-Archaic terracotta attributed to Temple II is taken to indicate the initial date of this layer. The first appearance of these terracottas in Satricum is set around 500/480, the date of construction of Temple II.138

In neither case is the proposed date (final and initial respectively) corroborated by the associated pottery finds, despite suggestions to the contrary. The three fragments in "oatmeal" fabric from layer 2 can hardly be considered a serious candidate for absolute dating. So far, this kind of pottery is practically unknown.139 Among the other datable pottery sherds mentioned are three fragments of red-slipped bowls, a fabric which (after its first appearance around 540/530) covers the whole of the fifth century.140

In the case of layer 3, the only secure dates are provided by three fragments of kylikes dated to 475-450.141 Instead of corroborating the proposed initial date of 490/480, these fragments can only serve as a terminus post quem for the layer and its deposition, i.e. after 475-450. Moreover, the very fragmented and worn condition of the kylix fragments seem to me to indicate a much later date of deposition.

One gets the impression of circular reasoning here, presumably in support of earlier proposals regarding a new chronology for Temples I and II.142 On the one hand, the occurrence of roof elements from the two temples in successive layers of Votive Deposit II is used to date the layers, while on the other hand the dates suggested for the layers is used as evidence for the proposed destruction dates of the two temples.143 There is, however, no evidence whatsoever to support a date around 540/530 for the destruction of Temple I.144 In fact, the combination of the closing date of Votive Deposit I (540/530) and the fact that "Ionian" elements from the earliest temple (Sacellum or Temple 0) were found both in this deposit and in the levelling layer underneath Temple I, provides irrefutable evidence for dating the building, and not the destruction, of Temple I around

137 See Maasatk-Kleibrink 1991, 51, 105; eadem 1992, 139; Bouma 1996, I, 86. This date is untenable on stratigraphical grounds (see below). On the final date of layer 2, see Bouma 1996, I, 309; II, 45.

138 On the date of construction of Temple II see, for instance, Lulof 1996, 207-208. In the view of the excavators of Votive Deposit II, the occurrence of Late-Archaic terracottas in layer 3 also implies that Temple II was already in ruins at the time this layer was deposited (Bouma 1996, II, 51). The idea that Temple II was destroyed shortly after its erection was first launched in 1992, in connection with the presence of fifth-century graves on the acropolis, see Maasatk 1992, 142-43. No sign of this destruction has yet been found in the archaeological record. On the dating of layer 3, see Bouma 1996, I, 309; II, 51.

139 Bouma 1996, II, 42, 45 and cat. nos. 413-414, pl. XXVI; see Ibidem, 42: "As yet, this fabric is only known from this area [= south of the temple]". See Maasatk 1992, 25 and 87 on the oat-meal fabric.

140 See Bouma 1996, II, 45, 47 and cat. nos. 358-360, pl. XXV.

141 Kylikes cat. nos. K1 (assemblage 1) and K2 (assemblage 8) and another specimen, not catalogued, Bouma 1996, I, 405; II, 274, pl. CXLIV. Cf. Stibbe 1992, 69, for a similar specimen in the Southwest Necropolis (grave 58.6) with a proposed date of c. 470-450, with references (Gnaide 1992a, fig. XVII). For the other pottery in layer 3 consisting of jars, bowls, teglie and amphoriskoi, all without fixed dates, see Bouma 1996, I, 309 n. 28.

142 One of the major claims made for Votive Deposit II is that it provides stratigraphic information which facilitates the reconstruction of the building history of the sanctuary, see for instance Bouma 1996, I, 37.

143 See Bouma 1996, I, 85-88 on the dates of Temples I and II, according to data supposedly provided by Votive Deposit II.

144 Strangely enough (despite a suggested final date of c. 530) a date for the deposition of levelling layer 2 could not be determined. The suggestion is made that it must have taken place after its closing date, somewhere between c. 530 and 490/480 (Bouma 1996, II, 48, n. 60). Obviously, this further undermines the argument for the destruction of Temple I around 530 (i.e. the presence of Campanian roof-tile fragments in this layer).
540/530.\textsuperscript{145} We have nothing to tell us how long this temple stood, apart from the apparent \textit{terminus ante quem} supplied by the terracottas of Temple II. Theoretically, Temple I may have been destroyed immediately after its construction, but there is no evidence to support this possibility.

Neither is there any direct archaeological evidence to place the destruction of Temple II in the early fifth century.\textsuperscript{146} The only legitimate conclusion that may be drawn from the presence of the Late-Archaic pieces in layer 3 is that the destruction of Temple II, if it ever happened, could only have taken place after the middle of the fifth century (based on a \textit{terminus post quem} provided by the worn black-glazed items which occur in the same layer).

Let us now examine the grounds upon which the relative chronology of the other layers of Votive Deposit II is based. Although not explicitly stated, the final date of c. 450 for layer 3 seems to be provided by the black-glazed fragments.\textsuperscript{147} Most of the other vessels cannot be dated precisely. They occur throughout all the votive layers of the deposit but, as will be shown in the section on the Poggio dei Cavallari which follows, they are also recorded in late sixth-century contexts elsewhere in Latium.

No fixed dates are available for closing layers 4\textsuperscript{148}, 6\textsuperscript{149} and 7\textsuperscript{150}, or for votive layer 5.\textsuperscript{151} Their relative datings are determined by their positions between layers 3 and 8,\textsuperscript{152} and by the absence of material which is present in the layer above. For the initial date of layer 8 (440/430) there are again no arguments given other than that it must be later than layer 7, because it was deposited on top of it.\textsuperscript{153} In fact the chronological limits of layer 8 (440/430-c. 375) seem to be provided by the time span covered by the bulk of the material which it contained. Earlier dated material is present, but not taken into account.\textsuperscript{154} Other material dated after c. 375 is similarly ignored in the chronological


\textsuperscript{146} As matters stand, there is no 'hard' archaeological evidence for a later date of destruction either. The historical reference to Temple II being struck by lightning in 207 (Livy 28, 11,1-3) must therefore be regarded, for the time being, as the only 'evidence' for the continued existence of Temple II until that time.

\textsuperscript{147} Cf. Bouma 1996, I, 309, where it is incorrectly stated that the kylikes provide the initial date for the layer.

\textsuperscript{148} Dated to c. 450. See Bouma 1996, II, 60-61, on layer 4.

\textsuperscript{149} Layer 6 is identified as a secondary stratum of different origin. The material covers the Orientalizing and Archaic periods and should be considered independent of the stratigraphical sequence which dates the deposition to 450-440/430. See Bouma 1996, II, 66-69, on layer 6.

\textsuperscript{150} Dated to 440/430. See Bouma 1996, II, 70-73, on layer 7.

\textsuperscript{151} A clear example of the neat chronological linking of the successive layers is illustrated by the dating of votive layer 5 to 450-440/430. According to the excavators there are no direct criteria available for these dates. The final date has been determined, firstly, by the absence of vessels which occur in layer 8 and, secondly, by the initial date of 440/430 which is proposed for that layer (Bouma 1996, I, 310, n. 29). Layer 5, however, has yielded three black-glazed bowls for which a date well into the late fifth century is suggested (B36, 87-88) and also a number of jugs of types I or II with parallels in Veii dating to the late fifth century (Bouma I, 310, and nn. 30-31). This dating is regarded as too late by the excavators, who prefer to adhere to the initial date they have proposed for layer 8, i.e. 440/430 (see below). On layer 5, see Bouma 1996, I, 309-310, and II, 61-66.

\textsuperscript{152} But see n. 134 on the position of the various layers in relation to each other.

\textsuperscript{153} On votive layer 8, see Bouma 1996, I, 310; II, 74-103.

\textsuperscript{154} Cf. for instance, three kylikes with inset lips dated c. 470-450 (K3-5), which supposedly provide the final date of layer 3. The presence of these earlier dated pieces in layer 8 is considered unsurprising, given the occurrence of similar specimens in Votive Deposit III (Bouma 1996, I, 405). It should be noted, however, that the contents of Votive Deposit III are the result of a secondary dump (see below).
delimitation.\textsuperscript{155}

The initial dates of the next two layers, 10 and 11, are brought in line with the final date of layer 8 (\textit{i.e.} around 375), although an earlier date is also considered possible.\textsuperscript{156} From this level onward the deposit is said to change in character, from a primary offering place to a deposit receiving either large concentrations or dumps of votive material (layers 10, 12) or dumps of architectural terracotta fragments (layer 11).

The general date of layer 10 is set in the fourth and third centuries, from c. 375 onwards. This date is based on a large amount of black-glazed pottery and on other datable material like \textit{Genucilia} plates and \textit{sovra dipinta} ceramics.\textsuperscript{157} The broad time span of the layer is underlined by a small number of Roman coins. Two bronze coins dating to 275-255 were found amongst the material deposited in the western part of the layer, near the bottom (!). In the eastern deposition two silver coins dating to around 405-400 were recovered, near the top (!). Their worn condition is seen as an indication of their deposition some decades later, well into the fourth century.\textsuperscript{158} On account of the coins and their position one can reasonably conclude that layer 10 must indeed have been a secondary dump. In this case, however, its deposition can only have taken place after 275-255.

Layer 11 - interpreted as a closing layer of architectural elements - contains predominantly Late-Archaic material and many small, pottery fragments resembling the pottery in the previous layers.\textsuperscript{159} The date given for the deposition of this layer appears to depend on the chronology provided for the layers underneath. The southern part, west of wall 94, is presumed to have been laid down after 375 (probably via a \textit{terminus post quem} provided by layer 8); the deposition of the northern part is set towards the end of the third century. No arguments are given for either dating.

The fifth and last layer of votive material, layer 12, represents a dump of votive material resembling the contents of the previous votive layers (and likewise containing animal remains!). The architectural elements are predominantly of Late-Archaic fabric. The deposition of this layer is set after that of the architectural closing layer 11, with a \textit{terminus post quem} provided by late third-century black-glazed jugs (not catalogued).\textsuperscript{160}

This review of the relative chronology of the various layers brings us back to the occurrence of architectural terracottas throughout all layers, and more specifically, to those from the Late-Archaic Temple. We have already referred to the great volume of terracottas (see Table 1). The only plausible explanation for 15,958 Late-Archaic pieces seems to be a destroyed temple roof. The conclusion which follows must be that the terracottas were available either at the time the deposit was laid out (in the case of a primary deposit) or at

\textsuperscript{155} See Bouma 1996, I, 310, n. 39. For example, there are parallels from Artena for the decorated jar type IIIf and the \textit{teglie} cat. nos. 28-29a, which are dated to the late fourth/early third centuries.

\textsuperscript{156} See Bouma 1996, I, 311, n. 44 with examples of possible earlier pieces, such as bowl types X and XI and \textit{teglia} nos. 35-36. The marked difference in fabric between the bowls in layer 8 and those in layer 10 (\textit{i.e.} depurate in layer 8 and coarse in layer 10) is considered a technical development which is assumed to be chronologically defined. However, these pieces apart, there are many more instances of earlier dated vessels recovered from layer 10, such as \textit{teglia} nos. 31, 34, 38-39, 41, 43, 45 (for which parallels from Veii are given with a \textit{terminus ante quem} of 380). Furthermore, layer 10 has yielded two black-glazed kylikes, one with inset lip dated 470-450 (K6) and one with continuous wall dated 440-430 (K13).

\textsuperscript{157} Cf. Bouma, 1996, I, 311; on layer 10, see Bouma 1996, II, 104-117.

\textsuperscript{158} Bouma 1996, I, 311, n. 43.

\textsuperscript{159} See Bouma 1996, II, 118-119, on layer 11.

\textsuperscript{160} On this layer, see Bouma 1996, I, 311 and II, 120-123.
primary deposit) or at the time the deposit was closed (in the case of a secondary deposit).

As has been mentioned above, the Late-Archaic terracottas present in the Hellenistic Deposit are regarded as an integral part of an enormous dump of material thrown into the deposit, most likely in separate waves, possibly shortly after each other, somewhere in the second century. This reconstruction explains the vertical stratigraphy observed in the fill of the deposit, which exhibits clearly distinct layers often sloping towards the centre, as well as Late-Archaic terracottas in both the lower and upper layers.

In the case of Votive Deposit II we are, by contrast, invited to accept the gradual accumulation of its contents over quite a long period, apparently reflected in the diachronic sequence of its layers. In my view, however, the large numbers of Late-Archaic terracottas present in all the layers are difficult to reconcile with such a chronological progression. To do so would require us to believe that, over a period of more than a century during which the deposit was in continuous use as a primary offering place, the terracottas were lying dispersed over the temple hill. The idea of dedicants offering their gifts in carefully composed assemblages amidst total ruin, closely observing traditional 'rules' while surrounded by the debris of their most important building, is frankly implausible. Even if we accept the assumption that the temple was no longer standing, it is likely that the Latin dedicants would have cleared the cult area in the same way as they obviously cleared and prepared the depression which was to receive the offerings.

Table 2. Relative distribution of architectural terracottas in Votive Deposit II

![Relative distribution of architectural terracottas in Votive Deposit II](image)

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161 Personal communication from B.H. Heldring. See also Heldring 1988, 207-209; eadem 1990, 229-230, for the preliminary reports on the excavation of the Hellenistic Votive Deposit.
Furthermore, if the deposit had indeed filled up gradually, it would be reasonable to expect that the earliest and lowest depositions would yield a higher percentage of the Late Archaic roof-elements than the later, higher layers. The numbers of roof-elements would then diminish in the course of time. The opposite is in fact the case: the number of Late-Archaic terracottas, decorative as well as plain pieces, increases proportionately with each layer (see above and Table 2 on the relative distribution of architectural terracottas per layer). Even when the considerable differences in quantity and duration of the separate layers are taken into account, the internal distribution per layer of the main fabric groups only begins to exhibit an almost complete Late-Archaic predominance from layer 8 onwards. It is therefore much more likely, in my view, that the consistent and predominant presence of Late-Archaic terracottas in the upper layers is the result of a secondary dump (or series of dumps deposited shortly after each other), which took place much later than the beginning of the fifth century.

Other observations regarding the stratigraphy of Votive Deposit II
In the presentation of Votive Deposit II as a gradual accumulation of separate offerings, layer 8 is seen as another primary votive layer despite the fact that it is the one stratum which clearly invites a different interpretation (i.e. as a layer containing large dumps). Quite apart from the actual presence of vast amounts of material, pottery and roof-elements alike, there is even a reference from the excavators themselves to the phenomenon of large-scale dumps in relation to this very layer. Several other features also imply its secondary character. There is, for instance, the enormous concentration of material at its top level, as revealed in two photographs. Then there is the very character of the assemblages, which implies a less structured deposition of the layer. The excavators seem to recognize the latter, given various references to the shared, vague or absent enclosures of the individual assemblages. At the same time they appear to assume the deliberate deposition of some offerings which do not in fact reflect any system at all. Finally, there are various references to the steep slope of the layer (and of those underneath). In my view all these factors indicate that, in this case at least, there was no careful deposition of assemblages.

On several occasions we have already referred to the resemblance between the contents of votive layer 8 and those of the dump stratum covering the Late-Archaic road in the Poggio dei Cavallari. This resemblance is underlined by the stratigraphical position of both

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162 See Bouma 1996, I, 72, n. 221.
164 There are various references to the deliberate deposition of votive material either upside down or the right way up or in a horizontal position. See, for example, Bouma 1996, II, 75-76.
165 See, for instance, Bouma 1996, II, 76-77. But the strong inclination of the depression is already mentioned as the reason for the fact that part of the material had slipped down the slope, even in votive layer 3 (despite the deposition of levelling layer 2, see Bouma 1996, II, 50).
166 The resemblance is especially apparent in the ordinary ware vessels, the dark red tile fragments and the various types of stones. Most of the ordinary vessels whose fragments are found in layer 8 of the deposit have parallels in the dump stratum covering the Late-Archaic road. An important difference is that the dump stratum on the road did not contain any decorative architectural terracottas and only a few black-glazed items. This is hardly surprising, however, given the absence of religious structures in the Poggio dei Cavallari and the fact that the decorative terracottas were probably used exclusively for the temples. It should also be noted that layer 8 itself contained relatively few (and mostly small) fragments of black-glazed ware (c. 60 fragments).
layers. As will be shown in the next section (Ch. 3.2), the rich stratum of dumped artifacts in the Poggio dei Cavallari is lying on top of a layer of tufa grit which is there identified as a walking surface or the sublevel of a pavement (see below, Ch. 3.2). An almost identical situation is encountered in Votive Deposit II, where the tufa grit is represented by layer 7. This layer, in its turn, may be linked to a thick pebble layer (layer 9) which has so far remained outside the discussion of the stratigraphy because of its northern position in the deposit. According to the profile drawings, however, it is also lying on top of the sandy sub-layer 6. In view of their stratigraphical correspondence, I would suggest that tufa grit layer 7 and pebble layer 9 belong to one and the same stratum, and further that the combined stratum served as a functional surface, rather than as a separation stratum between two distinct layers of offerings. It is not impossible to envisage a connection between this level and wall z, which stands directly on top of it.

The resemblances between the stratigraphies of Votive Deposit II and the strata covering the Late-Archaic road seem to extend beyond their respective dump layers. As will be shown in the next section, other corresponding strata have been recognized in the Poggio dei Cavallari, such as layers of sterile sand (cf. layer 4, deposit) or secondarily deposited sand (cf. layer 6, deposit).

We cannot conclude our discussion of Votive Deposit II without paying some attention to votive layer 3. This is the first layer of votive material and the layer upon which the interpretation of an open primary deposit of separate votive assemblages seems to be based. It covered only a very small area, c. 4 x 5 m., against the sloping eastern edge of the depression. As argued above, this rather steep incline (given as the reason for part of the material slipping down) makes the careful deposition of the assemblages most unlikely. Moreover, it is surprising to note that nine (!) of the ten identified assemblages of votive offerings were not completely excavated, and that parts of them continued into the profiles of the respective excavation units. The tenth assemblage touches the profile. Despite this situation, it is stated that "each [of the assemblages] was surrounded by a circle composed of fragments of architectonic elements, tufa blocks and occasionally a storage jar". Close study of the profile drawings and other illustrations further reveals that layer 3 is largely covered by layer 8 and only in some places was separated from it by the secondary layer 6. This implies that it is difficult to attribute

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167 Bouma 1996, II, 41, on layer 7. The grit level has been interpreted as an intermediate layer between layer 6 and the following votive layer 8. In the Poggio dei Cavallari a similarly distinct layer of tufa grit, about 0.10 m. thick, has been encountered on top of a sandy substratum, the contents of which (a mixture of Orientalizing and Archaic finds) strongly recalls layer 6 of Votive Deposit II. The tufa layer in the Poggio dei Cavallari was found in various places, in one case directly connected with a wall (wall g) to which it has been assigned as a probable walking surface or the sublevel of a pavement.

168 Pebbles have also been recorded as an integral element of the tufa grit, alongside wall z for example.

169 See Bouma 1996, II, 41, on pebble-layer 9 which is dated after c. 400; see general plan 9 (II, p. 133) for its position in the deposit and section 8 (II, p. 130) for its stratigraphical position.


172 See the descriptions of the separate assemblages, Bouma 1996, II, 52-59.


174 See Bouma 1996, II, section drawings 1 and 4, figs. 34-35.
material to either of these layers, let alone to identify separate assemblages. Given this combination of circumstances, the character of layer 3 must be reconsidered. In my view, like layer 8, it should be identified as a dump layer.

One final observation on the suggested primary character of Votive Deposit II remains to be made. It is surprising to note that layers 10 and 12, which are regarded as dump layers, contain faunal remains identical to those recorded in the 'primary' votive layers. This presumes the existence of another place where the offerings were deposited before they were collected and dumped. So while the custom of food offerings has apparently remained the same during the fourth and third centuries, the primary character of the ritual as expressed in the depositions has now fundamentally shifted. The change is tentatively linked to the Roman presence in the Pontine region and its impact on cults, including that practised in Satricum. New offerings with a highly individual character, such as anatomical votives, votive heads and statuettes, appear. According to the excavators of Votive Deposit II, these objects replace the former combined group offerings of vessels deposited in assemblages, a change which is interpreted as a transition from a community-centred perception towards a individual-centred perception of the cult. This interpretation of the objects as such may well be useful in a general sense (in considering the contents of Votive Deposit III, for instance). But it is surely stretching the point to connect it with the limited presence of partly preserved terracotta votive objects in Votive Deposit II. To then link their presence with the disappearance of the assemblages and the simultaneous appearance of large-scale dumps (especially when the traditional food offerings in domestic vessels are seen to continue) seems simply unsustainable. The sporadic occurrence of the terracotta votive objects and of the small black-glazed fragments mentioned earlier (both of which are already present in layer 8) are in my view additional indications of the secondary character of Votive Deposit II. The few "Roman" ex-votos have presumably ended up by accident amongst the rest of the dumped material.

Conclusions
I have tried to show that the evidence presented by Votive Deposit II allows for an interpretation quite different from that published by the excavators. Instead of attempting to trace diachronic aspects of continuity in order to prove the Latin identity of the deposit, it seems to me far more sensible to regard it as a completely new phenomenon to be studied on its own merits and in relation to another new discovery in Satricum: the top layers covering the Late-Archaic road in the Poggio dei Cavallari, which are largely contemporary with Votive Deposit II and present quite similar stratigraphical characteristics.

Despite the persistent search for traditional elements that may reflect earlier customs, few have actually been found. The evidence presented for religious continuity as reflected in resemblances between Votive Deposits I and II is not very convincing and in some instances even incorrect. This applies especially to the apparent resemblances proposed in

175 Cf. for example, Bouma 1996, I, fig. 44. Apart from the pottery attributed to assemblage 8 in layer 3, the picture clearly reveals another large concentration of pottery fragments in the northeast corner. It is not numbered on the picture itself, nor is it attributed to layer 3 despite being on the same level as assemblage 8. We have to guess as to its provenance, but it probably belongs to votive layer 8, which in this section of the deposit lay directly on top of layer 3.

support of the primary nature of both deposits. But other arguments, such as the alleged "elements of Latinity" (the ritual re-use of the "sacral" terracottas, the practice of specific food offerings) put forward as evidence for the continuity of former Latin customs, are equally dubious. As it stands, Votive Deposit II remains a rather isolated phenomenon that lacks direct parallels in fifth-century Latium. It is one of the very few known deposits in Central-Italy (and the largest so far discovered) containing votive material that can be firmly dated to the fifth and fourth centuries. Most deposits pre- or post-date this period and turn out to be much smaller.177 There is, in fact, almost a structural absence of votive material that can be related to fifth-century sacred places in Latium.178

The predominant presence of pottery gifts is a phenomenon for which the only other known example in Latium is the deposit underneath the church of SS. Stimate at Velletri.179 Unfortunately, although this deposit is said to consist almost exclusively of pottery gifts, the published information is very limited and it cannot serve as a fully-fledged parallel. Moreover, the specifically domestic character of the assemblages in Votive Deposit II has not been observed in any other fifth-century site in Latium. Even in the subsequent period, when the offering of vessels occurs more regularly, pottery has only been occasionally attested as an exclusive gift. By this time anatomical votives, terracotta heads and statuettes have become the prevailing offerings, as is amply illustrated by the contents of the Hellenistic Votive Deposit in Satricum.

So far the closest parallels to the deposit (in chronological and material terms at least) seem to come from within Satricum itself. Comparable assemblages of identical vessels with a similar predominance of jars and bowls have been found in the fifth-century graves in the Southwest Necropolis (Ch. 3.3) and on the acropolis (Ch. 3.1.2). Although representing a different sphere, it is the graves from these cemeteries (and the burial practices related to them) which in fact constitute the best parallels for the study of fifth-century customs and rituals and for the identification of cultural background.

Furthermore, identical material has been found in the dump layer on top of the Late-Archaic road in the Poggio dei Cavallari. Partly in very large fragments and in some cases nearly complete, these pottery finds likewise occur in combination with enormous quantities of tile fragments and stones. This find-complex also resembles Votive Deposit II in aspects of its stratigraphy.

In my analysis of the chronological framework put forward for the individual layers of Votive Deposit II, I have been unable to find hard evidence to support the neat chronological divisions proposed. The layers distinguished show either too few datable elements or too much chronological overlap. There are even stronger objections to the initial date proposed for the deposit.

It seems that the whole idea of a relative chronology is based on the assumption that the deposit's stratigraphy is vertical. Close inspection, however, casts doubt on a conveniently neat layering. There is in fact a strong resemblance to the stratigraphy of Votive Deposit III, which exhibits a series of distinctly sloping layers. The latter have been explained as

the result of various dumps thrown into the deposit, probably in quick succession, and dated (on the basis of a few Roman coins encountered in the top closing layer) not before the second century. A similar reconstruction should, in my view, be considered for the layout of Votive Deposit II. The same arguments which cast doubt on the proposed relative chronology would seem to support the idea of subsequent dumps. If to these we add the suspect identification of marked assemblages, the steep slope of some of the votive strata and the occurrence of Late-Archaic tiles in the lowest as well as the highest layers, the case for regarding Votive Deposit II as a dump begins to look very strong.

3.1.2 The acropolis graves

Strongly connected to Votive Deposit II, both in time and in cultural background, is a small fifth-century cemetery situated along the Via Sacra at the southwest corner of the sanctuary. Graves were in fact recorded here in excavations at the beginning of the twentieth century. Until recently, however, these excavations were virtually unknown. The excavated material was 'hidden', together with the excavation diary, in the store-rooms of the Villa Giulia, and was only discovered by accident, packed in a large wooden box. It then emerged that the excavations prematurely concluded ten years before had been resumed between 1907-1910. Many soundings were then carried out in various parts of the site, both on the acropolis and in the lower settlement. At least three graves were discovered during the excavation of a hut feature on the acropolis. Their specific location was not recorded, but the description of the burials and of finds related to them suggests that the graves can be attributed to the burial ground recently discovered to the southwest of Temple II (see below).

The graves discovered in 1909 are summarily described in the excavation diary. They are numbered 1-3 in Ginge's publication. Grave 1 contained no burial gifts and only some badly preserved bone fragments. The other two still contained skeletal remains, of which those in grave 3 were attributed to a child. Both contained vases of types known from the Southwest Necropolis (Ch. 3.3). Among these were a stamnos made of orange buff clay of a soft quality (grave 2) and fragments of a jar of reddish brown semi-coarse fabric of the type with holes in the lip and a small jug of fine clay (grave 3). A bronze fibula which was reportedly found in an Iron Age ditch has also been attributed to the graves (by Ginge). The description and the contents of the graves strongly suggest that these were fifth-century burials identical to those excavated in the Southwest Necropolis.

The three graves then appeared to be part of a larger necropolis, which was finally discovered and partly excavated between 1985-1991. Some 35 graves were documented, 11 of which have been excavated. As in the Southwest Necropolis, the graves

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180 The excavations 1907-1910 were published in 1996 by B. Ginge.
181 This excavation was conducted on April 29-30, in 1909, see Ginge 1996, 125-126.
182 It is not unlikely that many more graves were discovered on the acropolis already during the excavations at the end of the nineteenth century. See, for instance, R. Mengarelli's plan of the western part of the acropolis, which reveals, amongst the rectangular Iron Age hut plans, the clear outlines of eight fossae aligned in two different directions (published in Waarsenburg 1995a, pl. II).
183 See the preliminary publication in Maaskant-Kleibrink 1992, 101-105.
are aligned in two main directions: i.e. NW/SE and NE/SW. They contain similar vases, which are identically placed in the tombs (either at the head or the feet of the deceased) and varying in number between one and six pieces. With one possible exception, no weapons have been recorded. Other personal objects occur with some regularity, including two bronze finger-rings, an iron fibula and a glass bead. The graves themselves are of a type also found in the Southwest Necropolis. They consist of a simple rectangular fossa, occasionally provided with benches along the long or short sides. Two double burials were encountered, each containing an adult and a child.

3.1.3 Conclusions

Both Votive Deposit II and the fifth-century graves on the acropolis can be regarded as features deriving from the same cultural background. This conclusion can be justified by the resemblances between the objects which are found in the two find-complexes and by their corresponding chronologies. There is not yet agreement, however, as to the ethnic nature of this cultural background and this question has come to dominate the debate on the fifth-century remains in Satricum.

As has been shown, the excavators’ interpretation of Votive Deposit II is characterized by the search for elements of continuity with previous periods, i.e. with the Latin past. It is clear that a similar approach cannot be applied to the phenomenon of the burials. In an area which for centuries had been devoted to the gods, graves are suddenly laid out in what appears to be a formal burial ground. This fact alone is remarkable and can be regarded as a marked break with the preceding period. It becomes even more unusual when considered against the background of the general absence of graves in the archaeological record of fifth-century Latium (see below, Ch. 3.3). To explain these facts in terms of a changed urban concept, in turn the result of economic decline and a reduction in the number of Latin inhabitants, seems far too simple to me.\(^\text{184}\) The remaining Latins would not have abandoned firmly established sacral rules so easily.

In the discussion of the deposit, I have argued that the enormous body of vessels encountered in the deposit northwest of the temples should be interpreted as a secondary dump of objects created after (or as the direct result of) a large-scale clean-up of the area. This implies that the vessels originate from another context. Their general character, which can be classified as predominantly domestic pottery, suggests that the majority of the finds should therefore be attributed to the domestic sphere. As will be shown in the next section, identical vessels have been encountered in remarkably similar circumstances in the top layers excavated in the Poggio dei Cavallari. There they have been interpreted as the debris of destroyed habitations nearby. Unfortunately, as on the acropolis, the remains of the dwellings in this particular area have not been preserved. Their original existence is, however, to be presumed.

As to the faunal remains encountered amongst the vessels in Votive Deposit II, these should in my view be read as the remains of ordinary meals, without any ritual

connotation. Similar faunal remains have been encountered among the pottery fragments in the Poggio dei Cavallari, albeit not in the same quantity.

Finally, on the basis of the sudden appearance of burials, we can conclude that the acropolis indeed underwent a major change in occupation during the early fifth century. Habitation of the area, however, seems to have continued, despite the recorded absence of habitation remains. The people who lived and buried their dead on the acropolis were, in my view, not Latins, for the simple reason that such practices were contrary to basic Latin rules. For the real identity of these people we must look to other fifth-century graves, which have been excavated in other parts of ancient Satricum. As will be shown, these can be identified as the burials of quite another ethnic group, which lived in Satricum during the fifth century and practised customs very different from those of their Latin predecessors.

3.2 THE LOWER SETTLEMENT AREA OF THE POGGIO DEI CAVALLARI

Introduction
The Post-Archaic phase of Satricum is mainly encountered in the lower urban settlement, in the area known as the Poggio dei Cavallari (Fig. 1). As was noted in the preceding chapter, this is the only zone of the ancient site that has so far yielded a stratigraphical continuity covering the Archaic and Post-Archaic periods. Archaeological research of the area has revealed a monumental road, the course of which has been traced - with an interruption of about 50 m - for c. 140 m. The construction of the road has been set in the last quarter of the sixth century. It appears to have been laid in a natural depression about 10 m wide, at the bottom of which were recorded remains of an earlier road phase. Coming from the direction of either Ardea or Antium, the road probably connected the lower settlement with the acropolis and as such would have constituted the main artery of the town (see Ch. 2.1).

This chapter will deal with the fifth-century history of the road. This begins with its destruction and subsequent restoration, at some point in the late sixth or early fifth centuries (walls k, g/i, j; Fig. 7). The most conspicuous feature of the subsequent Post-Archaic period is a series of long walls situated in the western part of the area (a/b), while excavations in the eastern part have revealed the corner of a rectangular structure (z) that can be dated to the same period. The latter lies in the only part of the terrain which has remained untouched by recent levelling activity. In addition, the area to the north of the road has yielded graves that can also be dated to the fifth century (Figs. 4-5, 20; Pl. 42).

3.2.1 The later history of the road

Probably shortly after its construction (see below) - the exact moment is not yet established - the Late-Archaic road leading up to the acropolis was severely damaged. This involved, amongst other things, a great fire, indications of which have been observed throughout the excavation area. The clearest evidence of the fire was found in section II. Here part of the original pavement of tufa chunks had remained in situ, but had clearly
been exposed to heat since the tufa was pink and purple in colour. Elsewhere the pavement must have been largely destroyed. In the middle of the road it was absent throughout, as if it had been intentionally broken up.

In the western part of the excavation area the side walls of the road are generally well preserved. Only in the westernmost section, III, do the tops of the upper blocks show some traces of damage. In the eastern part of the excavation area, the destruction was much more comprehensive. In the two soundings which were conducted in the highest point of the preserved land, which is above the presumed continuation of wall c', no remains of the wall itself were recorded. However, as will be shown below, one of the soundings did yield a substantial terra battuta that may have replaced the older pavement.

The western part of the excavation area

The events that took place after the destruction of the Late-Archaic road are best understood from the remains in the western part of the excavation area (Fig. 5). These suggest that the road underwent a restoration during which the road level was raised by means of a layer of sand. New side walls were erected along its north side and a new surface laid down on top of the sandy layer. It can be argued that the rectangular structures g/i and j, and possibly wall stretch k, belonged to this restoration phase. The arguments in favour of this reconstruction will be discussed in detail below. Owing to the fact that the restoration layers have only been encountered in sections II, IIA and III, the description of this phase will be restricted to these soundings.

Structure g/i

Structure g/i comprises two walls meeting at right angles (Fig. 7; Pl. 18). Close to the northern side of wall d and partially lying against it, a long stretch of wall (g) runs for c. 10 m in an east-west direction. In contrast to the adjacent wall d, this wall consists of a single course of red-brown tufa blocks (Pl. 17). Though rectangular in shape, the blocks are rather irregular in size. In some places they show some damage. It seems that they have been recycled.

Wall g stands on top of the sandy layer which had clearly been laid down to carry a new road surface. In section II, this sandy layer was encountered on both sides of wall g (Figs. 13-14) - to the south it covered wall d and most of the burnt pavement, while to the north it extended for at least 1.50 m, reaching the northern edge of the natural depression in which the road had been laid (see above). The sandy layer was covered by a distinct layer of tufa grit about 0.10 m thick. This layer was also encountered on both sides of wall g, to the top of which it was connected. It consisted of very small pieces of white tufa mixed with some larger pieces. To the north of wall g it covered a surface about 2.00 m wide extending to the edge of the depression. To the south it could be followed for about three quarters of the width of the road. From this point the layer became vague and probably joined the original pavement of the road, or continued towards wall a/b (see below).

The foundations of wall g begin about 0.50 m above the top of road wall d (Figs. 13-14). It seems likely that it was originally connected to N-S wall i, though the actual junction is disturbed (Pls. 18-19). Like wall g, wall i is one block high and the likely replacement of wall f on a higher level (see Ch. 2.1). Its blocks are of rather irregular shapes and sizes.
Wall $i$ seems to closely follow the course of the natural depression which here widens to the north. It seems that this widening has been integrated into the lay-out of the new situation, as was done in the Late-Archaic phase of the road via the construction of structure $e-f$ (see Ch. 2.1).

**Structure $j$**

Sixteen metres west of wall $i$, another rectangular structure has been recorded north of the road (structure $j$). This comprises two walls of large brown tufa blocks similar to those in the road walls (Fig. 5; Pls. 20-22). The walls consist of a short N-S stretch of 2.60 m which is connected at right angles to an E-W stretch of 3.60 m. Further excavation towards the west would probably reveal the continuation of the E-W stretch, and perhaps a third wall lying at right angles to its far end.

Compared to structure $i/g$, structure $j$ gives a far more solid impression. Its walls are founded in the virgin soil and the blocks are larger, comparable to those in the road walls. The E-W wall consists of two courses of blocks laid in headers and showing a receding ridge along their external edges on the south side. Originally the wall probably had a third course or some kind of superstructure, as is suggested by various holes in the upper surfaces of the blocks.

The N-S stretch has been clearly adapted to the rising level of the depression to the north, changing from two courses to one from the south (Fig. 9,a; Pl. 22;). An interesting detail is here provided by the external facing of the blocks. Following the rising level of the ground, the obviously visible surfaces have been smoothened, while the lower parts which were embedded in the earth have been left rough. In order to accommodate the northernmost block of this stretch of wall, a rectangular hole has been cut in the virgin soil. Two smaller, white tufa blocks have been placed along the north and west sides, filling in this foundation trench (Pl. 22).

An interesting phenomenon has been recorded along the lower exteriors of both walls. Along the N-S stretch, following the slope of the virgin soil down to the southeast corner of the structure, there were a large number of irregularly shaped lime-stone rocks of various size (Pls. 20-22). These continued in even larger concentration around the corner of the structure and along part of the E-W wall, obviously filling in the space between the road wall $d$ and the lowest blocks of wall $j$.

Similar rocks have been recorded with some consistency in other parts of the excavation. They were found, for example, in direct combination with road walls $c$ and $d$, but always high up or on top of the walls, as if replacing missing blocks. Obviously they post-date the earlier construction of the road, both here and by the walls of structure $j$.

These rocks are a remarkable feature of the excavation, since limestone does not occur in the geology of Satricum. Their provenance is probably to be found in the Monti Lepini.\textsuperscript{185} Outside the road area, similar rocks are few in Satricum. Several limestone blocks were used in the construction of the enclosure wall (94) of Votive Deposit II, and one limestone rock has been recorded in the fill.\textsuperscript{186} Another block, with hewn and

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\textsuperscript{185} Personal communication from T. Arnoldus-Huyzendveld.

\textsuperscript{186} Bouma 1996, II, 76.
flattened sides, was found in grave 135 of the Southwest Necropolis.  

Structure $j$, though clearly of a different character, appears to belong to the same restoration phase as structure $g/i$. This conclusion is based on the stratigraphical evidence. A similar sandy layer was found against its E-W wall, covering both the limestone fill and road wall $d$ (Fig. 15). The receding ridge of the E-W wall appears to be connected to a well-defined layer of compressed yellowish tufa lumps laid on top of the sandy layer and the limestone rocks. In comparison to the tufa layer in section II, that in section IIA is thicker but less closely packed. Its slope could be followed from the point of the receding edge of wall $j$, down towards the south for a distance of about 1.40 m. Unfortunately, no connection could be established between this layer and the original (burned) pavement of the road since the central part of this section has not been excavated.

The function of structure $j$ is unclear, but the walls were probably part of a building. As we have mentioned, the holes in the blocks of the E-W wall imply a third course of tufa blocks. Further, the vague remains of a kind of tufa battuta were encountered on the inside of the walls, immediately below the present surface of the ground. In the western profile of section IIA, this battuta can be followed for c. 2.50 m to the south (Fig. 15). Its presence suggests that the tufa layers recorded on top of the sandy substratum in sections II and IIA should be read as working or preparation levels, lying underneath the actual walking surface, as represented by the remains of the battuta.

Another indication of a higher original elevation for wall $j$ is its solid foundation in the virgin soil and the additional stability given to it by the limestone fill packed against the lowest course of blocks under the sand. From a technical point of view, the structure recalls the solidity that has been generally observed in the construction of the road walls. At the same time, it recalls the large building located behind the temple of Mater Matuta on the acropolis. This building reveals a similar level of care in the execution of both structural and technical details.

Section III

The situation recorded in section III differed from those in the other two sections, II and IIA. Here the original pavement of the road was almost completely absent, with the exception of a small strip on top and against the upper block of wall $c$ (Figs. 16-17; Pl. 5; see Ch. 2.1). Instead, a greyish sandy layer mixed with pebbles was encountered between the side walls ($c$ and $d$) of the road, just below the level of the original pavement and underneath a thick stratum of ancient artifacts attributable to the youngest, Post-Archaic phase of the road (see below). This sandy-pebble layer can probably be identified as the remains of the substratum of the original pavement of the Late-Archaic road. Furthermore, a layer of small, closely packed, reddish coloured tufa lumps was recorded on top of side wall $d$ to the north (Pls. 23-24). Their position suggests that the function of these lumps may have been similar to that of the tufa layers encountered in direct relation to walls $g$ and $j$ in sections II and IIA. The existence of another wall, just like walls $g$ and $j$, to the north of the road, can be inferred from a rectangular indentation in the virgin soil (Fig.

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187 Gnade 1992a, 344.
188 It is also possible that the limestone rocks were specifically meant for drainage.
189 Gnade 1997a, 42-45, figs. 3-6.
Wall a/b
As the layers on top of the restored road suggest, there must have been a second and more radical raising of the road level. Wall a/b constitutes the most impressive structure that can be associated with this last phase of the road (Figs. 4-5). Its remains were uncovered for c. 45 m and consist of at least three different stretches of wall, constructed alternately in white and red-brown tufa blocks. Its course follows that of the road, implying a close connection between the two. The largest stretch measures c. 34 m and is constructed of rectangular blocks of white tufa. Their top surfaces are larger than those of the red-brown blocks in the other walls, but they are thinner (Pls. 25-27). In length they vary between 0.36 and 1.20, but in width and height they are far more regular: 0.60-0.70 and 0.20-0.30 m, respectively. The highest preserved section, the western end, still contains five courses of tufa blocks (Pl. 33).

In contrast to the red-brown walls, the white wall has two different facings. An irregular surface caused by the projecting edges and corners of the blocks suggests that the south face was either of no importance or not visible (Pl. 26). On the north face, however, the three upper courses have been smoothened, while the lower blocks still have their original rough surfaces (Pls. 31-32). At the eastern end of wall a (and probably in other places) a short wall of c. 1 m was constructed at right angles to the irregular south face of the white wall. Only the lower parts of the lowest course of white tufa blocks were preserved. This wall (and others like it) may be tentatively identified as supporting walls or buttresses.

The long, white wall a was laid in a foundation trench dug into the virgin soil along the edge of the natural depression followed by the road. A strip of c. 0.30 m of the foundation trench was still visible along the south side of the wall. Its fill contained both large and small pieces of white tufa. On the north side the foundation trench was less clearly recognizable. It could be established, however, that in some places it was cut into the earlier fill belonging to the construction of road wall c. The two ends of the white wall are connected on the north with stretches of wall built of red-brown tufa blocks (b): to the west, one red-brown wall disappears below the vineyard where it is presumably further preserved (Pl. 34); to the east, the other red-brown wall can be followed for c. 13 m. The blocks are similar to those of road walls c and d. Despite their different character, both the white and the red-brown walls seem to belong to the same phase of construction. Presumably the red-brown tufa blocks of wall b were first used in an earlier structure and then recycled when white wall a was built. Be that as it may, the joints between the various stretches clearly demonstrate adaptations of one wall to another. For example, in the eastern red-brown wall b the first two blocks of the upper course are laid as headers, whereas all its other blocks are laid as stretchers (Pls. 28-29). The headers neatly match the last two blocks of the white wall, which in their turn are squarer than the other blocks in this wall. A similar, well-considered adjustment is seen on the west side (Pl. 34). Here, the first (and lowest) block of the red-brown wall b is laid as a header, almost against the north side of white wall a. The three other visible blocks of wall b are laid as stretchers. The space between the two walls was filled in with smaller tufa blocks.

All this suggests that the staggering of wall a/b was intentional, perhaps to strengthen its construction. The system of staggered walls probably continued to the east, as is indicated

16). Unfortunately, the remains in this particular section are much less well preserved.
by the fact that the easternmost block of the eastern red-brown wall is again laid as a header. Against its south side the lower part of a white block was uncovered, no doubt the first block of a new white wall. Unfortunately, from this point onward, the modern ground level begins to slope down and the highest parts of the ancient remains in this area have been levelled away.

The fact that the foundation trench of white wall a cuts into the foundation fill of road wall c makes it clear that the former was built after the road. Other evidence collected in the highest preserved parts of the area confirms this sequence. In sections II, IIA and III, a thick stratum of remarkably clean, almost sterile sand was encountered against the lower north side of the white wall a. It also covered the southern road wall b and the adjacent layer of tiles (Figs. 13-17; Pls. 31-32, 37).190 This sandy stratum undoubtedly belongs to the building phase represented by white wall a. In addition to the creation of a new level, the sand also stabilized the foundations of the wall. A similar stabilizing function for sand has been observed in relation to walls g/i and j, north of the road (Figs. 13-15).

My reconstruction of the building of walls a/b is as follows. White wall a was erected first, followed by the eastern and western stretches of wall b, which began just to the north of wall a at each end. This sequence can be inferred from section I, where the foundation trench along the north side of white wall a is cut through to accommodate the first blocks of the eastern stretch of wall b. After the erection of white wall a, sand was laid against the lowest unsmoothed blocks which were thereby rendered invisible. As remarked above, this sand was recorded only in the higher preserved part of the western area (sections II, IIA and III, Figs. 13-17). Subsequently, the western red-brown tufa wall b was constructed on the newly created sand surface. A second layer of sand was then laid against the lowest blocks of this wall. Pan-tiles (probably complete specimens) were laid in the sand underneath the lowest corner block of the western red-brown wall, probably to add further stability (Fig. 16; Pl. 30). Among these tiles - and important with regard to the chronology of the wall - is one specimen of Late-Archaic white fabric. A second large fragment of the same fabric occurs in association with this wall (Pl. 45). It was found in the sand fill, leaning upright against the lowest block.

One further detail in the construction of the walls is worthy of mention. The foundations of western red-brown wall b are markedly less deep than those of white wall a, the red-brown wall beginning at the third course of white blocks. The reason for this is unclear. Originally, both walls were probably higher than their preserved height in section III, which is five and two courses respectively (Fig. 9; Pls. 33).

The upper blocks of wall a were probably chiselled in situ. Section IIA revealed the remains of a thin layer of compressed white tufa (0.05-0.10 m), which partly covered the sand lying against the lowest unworked blocks (Fig. 15; Pls. 31-32). This layer sloped down from the white wall towards the north and was preserved for a distance of about 1 m. Although far less thick, it recalls the compressed remains of tufa recorded in various places against the lowest blocks of road walls c and d (see Ch. 2.1).

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190 The tiles have been identified as a gutter covering the foundation trench of road wall c (see above, Ch. 2.1).
One or two phases in the rebuilding of the road?
It is tempting to connect the sand stratum against wall a/b with the sandy layer covering wall d, documented on the other side of the road (see above; Figs. 13-15). This would simplify the reconstruction, identifying wall a/b as part of the same restoration phase of the road as the structures g/i and j to the north. No direct connection could be established between the two layers, however, and in fact their composition is quite different. The sand stratum on the north side contains comparatively many finds (cat. nos. 13-35), while that to the south is predominantly sterile. Nor was it possible to establish a direct connection between any of the tufa layers associated with the northern structures (g/i and j) and wall a/b. Moreover, as will be shown below, the stratigraphy of the upper levels indicates that the structures to the north of the road were no longer in use at the time that wall a/b was standing erect.

Another important argument supporting a later date for wall a/b is supplied by a significant difference in the size of the blocks used in white wall a. Obviously at the time of their manufacture, another metrical system was current. Indeed, wall a/b is so wholly different in character that its attribution to a later period is amply justified. Although well constructed, it gives an impression of having been built in a rather hasty manner. There are gaps and holes between the individual blocks that have been filled with small tufa lumps. Similarly revealing is the fact that some of the red-brown blocks in wall b did not fit tightly. In section III a large gap between the first and second block of the western red-brown wall b was filled in for its full height with a complete roof-tile (Pl. 30). Such solutions are not found in the earlier structures.

Given these differences, it may be concluded that the road underwent two successive phases of rebuilding. To the first belong structures g/i and j, and probably wall stretch k (not excavated). To the second we can attribute wall a/b. As will be shown below, this wall is connected to a thick stratum of ancient material that appears to have been dumped on the road in order to raise its level for a second time.

The strata associated with wall a/b
In the three sections II, IIA and III, the sandy layer against wall a/b covered a width of c. 1.20 to 2.00 m towards the north (Figs. 13-17; Pl. 37). At that point the sand halted abruptly, as if it had been dug out, and was bordered by a thick stratum, c. 0.50 m deep, containing a large and varied assortment of tufa lumps, a huge number of fragments of roof-tiles (predominantly red, but also some white Late-Archaic), many large fragments of pottery (some nearly complete) and a lot of animal bones. The roof-tiles seem to form two separate layers in this stratum, one at the bottom and one at the top (see below for a discussion of the contents of this stratum).

The composition of this stratum would seem to identify it as an ancient dump. It is probably contemporary with the sandy layer against wall a/b, even though it apparently cuts through it. Unfortunately, as has been already observed, the sandy layer is almost sterile and has yielded only a very few small and undiagnostic finds. However, in section III it appeared as if both the sandy layer and the adjacent dump were covered by a tufa

\[191 \text{Cf. Cifani 1998, 363 with references in n. 25, on the different metrical systems applied in the construction of walls in the Archaic and Post-Archaic periods; also Lugli 1957, 189-193.}
\[192 \text{The animal bones are presently being studied by C. Cavallo of the archeo-zoological department of the University of Amsterdam. They comprise a broad spectrum of animal remains.} \]
layer (Fig. 16). This tufa layer also lay against wall a/b, implying a simultaneous lay-out. Its composition is best defined as compact tufa grit. Pebbles are also recorded. It probably constituted the final surface of the raised road, laid on top of the sand against the walls and elsewhere on the dump material. Unfortunately, due to the fact that section III was located in the highest preserved part of the excavation's western area, this layer of tufa grit has not been recorded anywhere else in this location. However, as will be shown below, a comparable layer (identified as a *battuta*) has been encountered in the upper levels of the eastern part of the excavation.

The dump stratum in sections II, IIA and III covered the entire width of the road (Figs. 13-17; Pl. 37). In sections II and IIA it continued as a thick stratum above walls g and j, clearly indicating its later date. At this point it constituted the top layer of the sections, lying immediately under the present humus.

The bottom of the dump stratum in section III was recorded at quite a deep level between the road walls c and d (Fig. 16). It lay on top of the greyish sandy layer mixed with pebbles, presented above as the remains of the substratum of the original pavement of the Late-Archaic road. The way in which the dump had been used to fill holes in the road and to create a new level is here very visible.

Section III is the only section in the western part of the excavation which provides a higher (and more recent) ancient stratum (Fig. 16). This is c. 0.75 m thick and was lying on top of the tufa grit. It contained many fragments of roof-tiles - including a lot of white, Late-Archaic examples - and pottery. Although some nearly complete vases were recorded, the fragments of pottery were generally smaller than in the dump underneath. Softer and more powdery fabrics also seem to occur more often (see below for a discussion of the contents of this stratum). The top layer in section III can be equated with the upper levels recorded in the highest point of the preserved land in the eastern part of the excavation (see below).

**Function of wall a/b**

Wall a/b occupies a special position in the interpretation of the Post-Archaic phase of the road. As has been shown, the structure belongs to a rebuilding phase and probably served as a side wall to the road. But it also exhibits several striking features that point to an additional function, perhaps as a retaining, or even a defensive, wall. There is its remarkable staggered course, for example, which may be explained as a structural element designed to strengthen the wall. Its preserved height in section III, at least five courses, exceeds that of all other walls excavated so far. The fact that it extends above the layer of tufa grit laid against it may imply that the wall was originally even higher. Further, there is the absence of a counterpart on the opposite side. Other interesting aspects are the two different facings to the blocks and the probable presence of buttresses at the back.

Regarding the difference in facing between the back and front of the wall, it is possible that the blocks have been left unworked because they were going to be invisible. The back of the wall may have been covered, by a mound of earth and stones, for example. In several places the foundation trench along the south side was covered with white tufa lumps. Given their position immediately below the present surface, these were initially interpreted as the remains of blocks scraped off the top of the wall by the plough. However, their occurrence in combination with what look like buttresses at the back may
indicate a more specific function. All in all, the structure resembles some kind of rampart.

Parallels in Antium and Castel di Decima
No other example of the wall type represented by wall a/b has so far been recorded in Satricum. Elsewhere, however, the facing wall of the agger at Antium offers an interesting parallel, without implying any direct relationship between the two walls. The defensive works of Castel di Decima may also be proposed as a likely parallel, by virtue of the shape of its back-wall or mura di contra scarp.

The facing wall of the agger of Antium is constructed in opus quadratum, in the local stone called macco. A recently restored section is five courses high with a maximum preserved height of c. 1.40 m. A marked resemblance with wall a in Satricum can be observed in the shape and size of the blocks. Like those in white wall a, the blocks in the Antium wall are elongated in shape, comparatively shallow in height (between c. 0.26-0.29 m) and with a thickness of c. 0.57-0.60 m. In length, however, they are far more regular, measuring between 0.80-0.90 m. Unlike in Satricum, the Antium blocks are laid in alternating courses of headers and stretchers, but a further similarity is observed in the blocks of the lowest two courses. These are slightly projecting and have been left with their original rough surfaces, which form a kind of embossing. The blocks of the higher courses have clearly been smoothened in situ. It is further to be noted that the wall stands on rather a sterile stratum, c. 0.50 thick, which was probably put down to form a stable foundation.

Of course, white wall a in Satricum, being only one course thick (compared to the three or four courses in Antium) and with only a vague indication of a mound behind, pales by the side of the rampart of Antium. Even in its present state of preservation this construction still recalls its former grandeur, which was celebrated in antiquity. Yet Satricum was much smaller than Antium, and we would not expect to find such monumental defences there. Wall a/b in Satricum, modest though it is, may well have performed a defensive function. For the moment, we have to be content with resemblances, such as in the elongated shape and low height of the blocks and the embossing and slight projection along their lower courses. Unfortunately, the date of the

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194 Guaitoli 1981b, 117-150.
195 The measurements and observations were made by myself during a visit in the company of D. Madrango from the Soprintendenza archeologica del Lazio in 1997, shortly after a tract of the wall had been cleaned and restored. It emerged from my measurements that the blocks of the second and third courses (from below) are slightly higher (0.33 m) than those of the fourth course (0.26-0.28 m). The length of the blocks alternates per course, reflecting the construction in headers and stretchers: 0.60 m (lowest course), c. 0.88 m (second course), c. 0.57-0.59 m (third course), c. 0.80-0.90 m (fourth course), c. 0.60 m (fifth course).
196 Guidi 1980, 42.
197 To get an impression of the scale of the rampart, see the photographs published by L. Quilici in Ocmus 1994, fig. 6 (1905), fig. 7 (1981); idem, 150 on the original length of the enceinte of c. 2500 m of which c. 1000 m has been preserved; on the current width of the earth mound of c. 30 m and on that of the fossa in front of c. 40 m, with a spectacular disparity in level between the two of 12 to 18 m. On the unassailable walls of Antium, see Livy II, 63.6; VI, 9.2.
198 Cf. also Guaitoli 1984, 370 and n. 54, who proposes a simpler and smaller type of enclosure for smaller centra, either for defensive purposes or to fence in the life stock.
wall of Antium is unknown.

Another likely parallel for wall a/b and its context is offered by the rampart construction of Castel di Decima. The parallel consists of a wall that has been defined as a *muro di contra scarpia* or retaining wall. It was erected around 600 at a distance of c. 25 m north of the Iron Age rampart of the acropolis. Two courses of rectangular blocks have been preserved, the lower consisting of greyish rectangular blocks of a regular size laid in headers, the upper of blocks of *cappellacio* of varying colour and size. The wall was originally higher. As in Satricum, one side of the wall had been smoothed, in this case the side facing the inhabited area. The other side - the side facing the filling of the rampart - had a slight embossing ('appena sbozzati'). A stratum of irregular tufa lumps was lying against it as part of the fill. On the inside, against the lowest course of the wall, a walking surface has been identified. This consisted of very small pieces of tufa deriving from the smoothing of the blocks. On top of this surface was a stratum that has been associated with the destruction of the wall. It contained finds that exhibit many resemblances with those from the dump stratum on the Satricum road. Most interesting are the fragments of large basins manufactured in *argilla sabbia chiara* and decorated with red or brown painted bands. The stratum has been dated to the second half of the sixth century. Other structures a short distance away have been associated with the wall. They yielded similar finds and have been dated to the sixth and early fifth centuries.

**The eastern part of the excavation area**

Most of the building phases identified in the western part of the excavation area have also been encountered in the eastern part (Fig. 6). These cover the Archaic road, the Late-Archaic road (walls c' and d', see Ch. 2.1), and the final phase, the Post-Archaic raising of the road level. The intermediate phase of restoration that has been recognized in the western part of the area and connected with structures g/i and j, has not been recorded elsewhere.

At the highest point of the terrain, about one meter above the top of road walls c' and d', a rectangular structure z has been identified. One of its walls was documented in the 1984 excavation, while a second (short) wall, at right angles to the first, was found in 1996. During the 1997 excavation both walls were cleaned and their lowest blocks brought to light. These are standing in a foundation trench in the virgin soil. The short N-S wall (found in 1996) is far less consistent in character than the E-W stretch. Only the lowest parts of the lowest blocks are preserved. In structure and position, the N-S wall bears some resemblance to that recorded against the back of wall a/b. The longer E-W stretch is composed of a varied mix of tufa blocks of irregular size and colour. Only at its west end did the wall yield three rectangular white blocks of more regular dimensions (0.70 x 0.70 x 0.30/0.40 m) (Pls. 38-39). Leaning against the north side of the E-W wall, *in situ* and covering its full preserved height, were found parts of two very large rectangular slabs of white tufa measuring c. 1.20 x 0.60 x 0.20 m. With an interruption of c. 5 m, the wall can be followed over a length of c. 14 m in a straight E-W line. Its continuation towards the east may be assumed. The construction of the wall reminds us of the wall of structure z on the acropolis of Satricum, which was found partly overlapping the southwest corner of

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199 The rampart has been given a *terminus ante quem* of Latial period III, see Guaitoli 1981b, 122-137.

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Votive Deposit II.\textsuperscript{200} There the wall has been dated after 400/375. It has been identified as part of an enclosure of a sacred area associated with Votive Deposit II.

There are few clues as to the function of structure z in the eastern part of the Poggio dei Cavallari. However, the E-W wall, though different in structure and situated quite a distance away, may well be the eastern continuation of western wall a/b. A similar protective function is strongly indicated by the large slabs against its north side, but the stratigraphical evidence is even more compelling. At a distance of c. 3 m to the north side of wall z, a substantial \textit{battuta} of white tufa covering an area of c. 10 m\textsuperscript{2} was recovered. Though not visually connected to wall z, it probably belonged to the same building phase. It recalls the tufa grit recorded against wall a/b in section III. Wall z is also associated with a stratum similar to the top stratum in section III, which lies against the upper part of wall a/b. Not only does it contain similar pottery finds, but it also yields many large fragments of white Late-Archaic roof-tiles. Among these was a fragment of a Late-Archaic antefix of a satyr and maenad.

Below the \textit{terra battuta}, associated with wall z and on top of road walls c' and d', a layer of c. 0.30-0.40 has been recorded which is characterised by a large number of tufa lumps. Thus far it resembles a dump layer and in some ways recalls the dump layer in the western part of the excavation area. Here the situation is far from clear due to recent levelling activity, but lower down in the eastern part of the excavation and even further to the east, a situation similar to that in the western part has been recorded. On top of the destroyed Late-Archaic road, a very large concentration of ceramics, roof-tiles and tufa lumps was brought to light (Pl. 40). It appeared to have been dumped on the road along the exterior of the south wall (c'), at the western end of the triangular structure (for the latter, see Ch. 2.1) in order to fill up a hole that was probably made during the destruction of the road. The blocks of the upper course of both road wall c' and the northern wall of the triangular structure were also removed during the destruction. In type, fabric and date the ceramics strongly resemble those recorded in the dump layer on top of the western part of the road (sections II, IIA, III). It must be said, however, that due to a lower proportion of white coarse ware (see below), the general impression given is more Archaic. Among the finds, which predominantly consist of domestic pottery, is an interesting black-glazed fragment of a late sixth-century amphora (see below).

\textbf{3.2.2 Observations on the pottery and the chronology of the strata on top of the road}

The strata on top of the Late-Archaic road provide an overview of the pottery shapes that were in use in Satricum during the sixth, fifth and fourth centuries. However, as far as the chronology of the individual vessels is concerned, we are faced with the recognized lack of well-dated published contexts for this period elsewhere in Latium. For the moment it seems that Satricum, and the area of the Poggio dei Cavallari in particular, is by far the richest find place of Archaic and Post-Archaic materials. It should therefore provide an excellent opportunity to establish a relative chronology for the pottery. There is, however, the problem of the secondary nature of the layers, which consist of earth and material collected elsewhere for the purpose of raising the road level. The layers contain a wide

range of artifacts covering a broad time span. This makes it very difficult to make chronological distinctions per stratum. Furthermore, the coarse ware pottery - by far the largest category in the various layers - comes in a small range of vessel-types that remain basically unchanged for a long period. These two factors are serious handicaps to determining the chronology of the recognized phases.

Some help is offered by the meticulous study which has been made of the material in Votive Deposit II, not least because of the many references that accompany almost every piece of pottery presented.\(^{201}\) Unfortunately, the dates arrived at for the various layers here are of little help for the dating of similar finds in the Poggio dei Cavallari. Many of the dates proposed for the various categories in the deposit, especially for those of the coarse ware, are based either on their first occurrence in, or on their absence from, a particular layer. It may be noted, however, that the absence of a certain shape or ware from a given layer cannot be regarded \textit{per se} as evidence for its absence from circulation, although this may be the case in some instances. Many shapes have a long history and are already known from other contexts prior to the initial date set for the deposit or for the layer concerned. An example is provided by the large basin with high vertical walls and four lugs at the bottom (\textit{teglia}) (see below).\(^{202}\)

In anticipation of a complete analysis of the strata of the Poggio dei Cavallari - the study of the enormous quantity of material being still at a preliminary stage - we will here present an initial impression paying attention to the most conspicuous elements. We will also propose a relative chronology for the successive rebuilding phases of the road, based on our observation of the pottery. It should be said, however, that this chronology is somewhat tentative, based as it is on the study of finds from only a small number of sections.

The material will be discussed following the sequence of the three main recognized strata. These are: 1) the strata immediately on top of the destroyed road, which are connected with structures \textit{g/i} and \textit{j} and with a restoration of the road; 2) the dump stratum associated with the construction of wall \textit{a/b} and identified as an integral raising of the road level; 3) the top stratum which covers the level associated with wall \textit{a/b}, as recorded in the two highest preserved parts of the excavation area.

\(^{201}\) On the pottery, see Bouma 1996, I, Ch. VII [The pottery and its typology].

\(^{202}\) Apart from the lugged \textit{teglia}, other examples may also be mentioned. A good one is provided by the distribution of the red-slipped bowls. The initial date for this ware can be set at c. 540/530 on the basis of two specimens occurring in Votive Deposit I (\textit{cf.} Bouma 1996, I, n. 71); their first occurrence in Votive deposit II is, however, in stratum 5 (450/440), which yielded one specimen; the bowls start to appear abundantly only from stratum 8 with a \textit{terminus post quem} of c. 440/430, see Bouma 1996, I, 314-318 (his ware Ib). Furthermore, there is the relatively late occurrence of coarsely grained white ware in layer 8 (Bouma 1996, I, 330, his ware Vla-b). This ware is attested far earlier both in and beyond Satricum. See below for a discussion of these groups. Another example is offered by the markedly late occurrence of most of the \textit{olla forata} in stratum 10 (from c. 375), while a relatively large number of this type of jar (49) is already present in the fifth century graves in the Southwest Necropolis.
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1. The strata associated with structures g/i and j

The sandy substratum in sections II and IIA has yielded a striking mixture of early ceramics (i.e. seventh to sixth centuries) of a varied nature, domestic, funerary and votive. This range clearly indicates the secondary character of the stratum. Among the finds are some imported fragments datable to the second and third quarters of the sixth century, and quite large pieces of Etrusco-Corinthian pottery. There are also a significant number of fragments of bucchero, which can be dated to the late seventh and sixth centuries (Cat. nos. 13-35; Fig. II). The richest spot for this mixture of finds has proved to be the sandy stratum to the north of wall g, in section II.

Some fragments of a more recent date (i.e. the late sixth or early fifth centuries) are also present, however. These consist of one fragment of a red-slipped bowl that was found deep in the sandy stratum in section IIA and a few light coloured fragments with dense augite temper. The first occurrence of red-slipped ware in Satricum has been set at around 540/530 (for this ware, see below).

Interestingly, the tufa layers on top of the sandy stratum in sections II and IIA are quite consistent in yielding fragments of large basins of a characteristic white fabric with a dense temper of fine augite and a slipped surface (Cat. nos. 37-41; Fig. III). This type of vessel is part of a long tradition that begins already in the sixth century and continues throughout the fifth (see below). The white ware, however, seems to occur in Satricum only from the late sixth century (see below). This observation is supported by the fact that the fill between the Late-Archaic road walls c and d did not contain fragments of this particular white fabric. As was shown in the previous chapter, the construction of the Late-Archaic road took place in the last quarter of the sixth century. Given the presence of white ware basins in the layer on top of the road, it is reasonable to suggest that the restoration of the road may have taken place not long after the presumed first occurrence of this ware in Satricum (i.e. in the late sixth or the early fifth centuries). Some support for this chronology appears to come from the dump stratum on top, which seems to contain what may be a later variety of white ware (see below).

2. The dump stratum associated with wall a/b

In order to establish the date of the next rebuilding phase of the road, associated with the construction of wall a/b, the contents of the dump stratum have to be analysed in detail. If the reconstruction of the dump stratum as an integral part of the second raising of the road level is correct (see above), then the moment of deposition (i.e. the most recent find from the dump stratum) will provide a date for the construction of wall a/b and for the rebuilding of the road.

Before discussing the chronologically significant categories and vessels occurring in the dump stratum, we should first consider one crucial find. This concerns the two white, Late-Archaic roof-tiles that were recorded underneath and against the lowest block of the western red-brown tufa wall b (see above; Pl. 45). The tiles supply a secure terminus post

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203 See Nijboer 1998, 121-122, who reports the find of wasters in both fabrics in a late sixth-century oven on the acropolis.
204 This refers to the fill that is directly associated with the lay-out of the road. Section I, at a rather deep level between road walls c and d, yielded a fragment of a rim of a large storage jar manufactured in a white fabric densely tempered with augite. The find should be interpreted, however, as an intrusion from the dump stratum above (see below).
**THE ROAD**

quem of 500/480 for the construction of the wall.\(^{205}\) A later date is even more probable, given the fact that tiles of this type were more likely to have been circulating after the destruction of the temple roof.\(^{206}\) This assumption is supported by the fact that the top layer in section III and that of the highest preserved part in the eastern part of the excavation (see below), both of which post-date the construction of wall a/b, each revealed a high number of Late-Archaic tiles.\(^{207}\) Apart from a few dispersed pieces, these are virtually absent in the dump stratum itself.

The dump stratum is the most interesting layer from a ceramic point of view. It contains a great quantity and variety of pottery, ranging from impasto, bucchero and coarse ware to depurated clay and black-glazed fabrics. By far the most dominant category is the coarse ware (Figs. IV-X; Pls. 44, 46).

Many larger fragments occur here, especially in coarse ware, some of which are almost complete. There is, for instance, a large teglia that was found intact, except for three missing lugs, in the top level of the dump (Pl. 48). Among the coarse ware shapes are large and small storage jars (dolii), some large Etruscan amphorae, a large variety of jars (ollae), mugs, bowls (scodeller), lids (coperchie), large trays (teglie) and many basins (bacili) (Pl. 46).

Among the datable items is a small quantity of bucchero representing a broad chronological range. Among these are a few sherds of a fine quality that can perhaps be dated to the late seventh or early sixth centuries (Cat. nos. 103-104; Fig. XI). The majority, however, falls in the second half of the sixth and even in the fifth centuries, and is of a poor quality fabric that has been recognized as imitation bucchero. The stratum contains two or three double-reeded handles that belong to the type of kantharos known from the Southwest Necropolis (Cat. nos. 107-109; Fig. XI).\(^{208}\) A nearly complete specimen of a jug in this fabric has also been recorded (Cat. no. 106; Fig. XI).

Etrusco-Corinthian ware is present in the shape of a sixth-century Etrusco-Corinthian lydion and some other, smaller fragments (Cat. nos. 97-102; Fig. XI).\(^{209}\)

As far as the date of the dump is concerned, the most important finds are a group of black-glazed fragments, disappointingly small in number. Their dates range from the late sixth century to the first or possibly second quarters of the fifth century. Among them are one or two rim fragments of kylikes in imitation of Bloesch C cups (525-475), one wall fragment of a kylix with concave lip and offset rim on interior (475-450) and some other wall fragments of larger cups with a well preserved glaze of a high quality which corresponds to Attic ware (Cat. nos. 111-112; Fig. XI).\(^{210}\)

\(^{205}\) In Satricum, tiles of so-called Late-Archaic fabric are related to the Late-Archaic temple of Mater Matuta. The temple terracottas are dated 500/480, see Lulof 1996, 207-208.

\(^{206}\) There is no agreement as to the date of the destruction of Temple II. For a discussion of the different opinions, see De Waele 1997, 67-83; see also above, Ch. 2.1 and Ch. 3.1.1.

\(^{207}\) It should also be noted that the fifth century graves of the Southwest Necropolis did not yield any Late-Archaic roof-tiles, even though tiles were used in at least three graves to protect the deceased. On the roof-tiles in the Southwest Necropolis, see Knoop 1992, 89-98.

\(^{208}\) Cf. Stibbe 1992, 72-79.

\(^{209}\) This was found in the most eastern part of the excavation area, in section VI, in the layer directly on top of wall c'.

\(^{210}\) On the lydion and its diffusion in Etruria during the second half of the sixth century, see Martelli 1978, 180-184, with references in n. 96. Parallels for our lydion are found in Cerveteri, see Cat Cerveteri 1980, 196, fig. 10 (tomb 154: dated to the second half of the sixth-end sixth century); NSC 1955, 88, fig. 49, 31-33 (chamber tomb 14).

\(^{211}\) On the Bloesch C cups, see Bloesch 1940; Agora XII, 91-92; 263-264. See Gravisca 1993, types 4 and 12, pls. 2-3, 6 for direct parallels.
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There are also a few fragments of a local type of small bowl with rounded lip thickened on the outside and a decoration of painted black bands. In all cases the glaze is worn. Though no exact parallels seem to be at hand, the painted decoration suggests a date in the first half of the fifth century (Cat. nos. 113-114; Fig. XI).\(^{212}\)

One rather special piece is a large rim/neck fragment of a table amphora of a Laconian type, datable to the last quarter of the sixth century. The inside has a black glaze, traces of which are also visible on the rim and the tops of the handles. The neck was probably spared (Cat. no. 110; Fig. XI). A direct parallel is offered by a type of black-glazed Laconian transport amphorae found in Sicily.\(^{213}\)

**Coarse ware**

To render the volume of coarse ware accessible, it has been divided into sub-categories according to colour, texture, temper and clay matrix. Essentially the categories run from dark to light, presumably reflecting some chronological development within the Archaic red-firing and the Late-Archaic pale-firing clays.\(^{214}\)

In relation to colour differences, the addition of temper to the clay will have also caused changes that can be interpreted in terms of a chronological development. This refers to the obvious presence of FeMn nodules in the earliest, Archaic groups of coarse ware and their gradual disappearance as augite begins to be used. The latter goes on to become the dominant element of temper and can be regarded as one of the main features of the fabrics produced in the last quarter of the sixth and the fifth centuries.\(^{215}\)

There is one further factor which may be important in the fabric analysis of the coarse ware and help towards its chronological classification. This is the marked resemblance between some of the coarse ware fabrics and that of architectural elements, above all of roof-tiles. The fabric of the dark-red Archaic roof tiles, characterised by the presence of FeMn nodules, is paralleled in that of larger vessels like the dolia. A similar correspondence may be noted in the pale-firing fabrics. This applies primarily to the fabric typical of the white Late-Archaic tiles attributed to Temple II.\(^{216}\)

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\(^{212}\) The shape of the bowl and type of decoration 'a fasce' may be compared with those of small bowls found in the necropolis of Alfedena, see Parise Badoni/Ruggeri Giove 1980, xvii, with parallels in Etruria and Campania. For the same shape in Pyrgi, see Colonna 1970, 225-226, fig. 81, 1-8, 10-12, 468, fig. 370. Though not identical - the shape in the dump layer seems to be less shallow and shows a rounded, thickened rim instead of the flat thickened rims of the parallel pieces - the bowl seems to belong to the same production sphere that is regarded as a predecessor to Campanian black-glazed pottery. The bowls have been dated to the end of the sixth and the first decennia of the fifth centuries in Alfedena, and to the end of the sixth and the first half of the fifth centuries in Pyrgi.


\(^{214}\) Five groups have been identified on the basis of colour: brick red or Archaic red, red brown to dark brown, orange brown to pale brown tending to grey in core, white in different gradations and bright orange often with a grey core. See also Bouna 1996, I, 318-330 for an extensive discussion of the various coarse wares (his group B) in Votive Deposit II. These broadly correspond with our observations of the wares in the dump layer. For the sake of consistency with the published material on the Southwest Necropolis, the term coarse ware is here used for the non-depurated ceramics of the sixth, fifth and fourth centuries that are characterized by various kinds and densities of temper (*ceramica grezza*). However, I am aware of the fact that this is a not very happy definition. Nowadays, the term impasto is the one most commonly used by our Italian colleagues. See Carafa 1995, 126 on the terminologies in use.

\(^{215}\) This description of course covers only the most visible elements of temper. A detailed analysis of the temper-content can only be given after microscopic research of the thin-sections of the material. For the scope of this general presentation, however, a broad division according to the most clearly visible inclusions will do.

\(^{216}\) See Lulof 1996, 12-16 for a description of the fabric of the Late-Archaic terracottas. Also Kars *et al.* 1987, 57-65. On the similarities noted between the fabrics of roof-tiles and pottery, see also Nijboer 1998, 126 with references.
tempered clay with identical mineral elements is observed in the large basins that occur frequently in the dump stratum. The resemblance can also be noted in other objects such as the loom-weights. Similarly, there seems to be a correspondence between the fabrics of some of the large basins and various smaller vessels on the one hand, and that of the so-called Campanian roof-tiles on the other. In both cases the pottery is characterised by the same fine texture that feels like emery paper. The clay has a high density of very fine augite and the same pale pink colour. Like the roof-tiles, the basins appear to have been decorated with broad painted bands. Many examples of this kind of ware have been recorded in the Poggio dei Cavallari, especially in the dump stratum. The large basin is the most common vessel amongst the white coarseware. It has recently been the object of several pottery studies, and thus will be dealt with here at some length.

**White coarse ware basins**

Large white coarse ware basins occur throughout the dump stratum, mainly in large fragments. The basins encompass a great variety of shapes, ranging from simple, deep bowls with curving walls and thickened incurving rims to wide shallow basins with wide band-shaped thickenings on the outside of the rims, either convex, straight or concave in profile and of varying thickness. Both types may exhibit encircling ridges on the outside below the rim, either plain or with finger-impressed decoration. In some cases spouts have been preserved, in others vertical loop handles appear on top of the rim (Figs. V-VII).

Apart from the colour of the clay, which may show pinkish, yellowish or greenish hues, the most noticeable feature of the ware is the predominant presence of augite. Other inclusions are also present but are less prominent. The ware has been variously defined: as Late Italo-Geometric (referring to the painted bands), as cream coarseware, as *impasto chiaro sabbioso*, as *ceramica sabbia chiara* and, most recently, as *chiaro augitico*. It should be noted here that the various definitions, though apparently referring to the same ware, may in fact indicate some real differences. The least ambiguous definition is *chiaro augitico*, which obviously refers to the abundant presence of augite particles in the clay. This kind of fabric presumably corresponds with the Late-Archaic white fabric of the terracottas of Temple II. The definitions *ceramica sabbia chiara* or *chiaro sabbioso* seem to refer to an obviously sandy feature of the clay, which may correspond with the pale-firing Campanian-like fabric referred to above. It therefore may indicate an earlier date than the *chiaro augitico* ware.

Among the white augite ware in the dump stratum, two groups may be defined on the basis of the density and size of the inclusions: a first group with a dense and very regular temper of very fine augite and a second group (apparently resembling the fabric of the decoration of Temple II) with very large and irregularly shaped particles of augite mixed

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217 See Knoop 1987, 227-31, for a fabric description of the Campanian terracottas of Temple I.
219 Cf. Carafa 1995, 232. The term Late Italo-Geometric was first introduced by Gjerstad (Gjerstad I, 1953, 78, n. 1). Threipland defined the same ware as 'coarse buff or pink ware' in 1963 (Threipland 1963) and in 1970 as 'cream coarse ware' (Torelli/Threipland 1970); Guaitoli introduced the term *sabbia chiara* for the same kind of ware found in Lavinium (*Lavinium* II, 432).
220 See Clementini/Rossi Diana 1988, 40.
with smaller ones. The first group is mostly encountered in deep basins with curving walls, whereas the second group more often occurs in the shallow basins, most of which have a thick, broad band on the outside of the rim. However, this is not a strict rule, since both types of basin may occur in each group. It may further be noted that in pots from the first group, the surface is always smooth and without exception exhibits traces of a pale brown to yellowish slip. By contrast, the surface of the pots from the second group now appears very coarse. They too were probably covered by a slip, however, since vague traces of it are still present in several cases. Its presumed disappearance from the rest may be due to the coarseness of the clay.

The basin as a general shape has many parallels outside Satricum, but nowhere in such great number or variety. They are difficult to date due to their obvious longevity. The shape occurs in both sixth and fifth century contexts, but even later dates are known. The popularity of the basin is perhaps most clearly illustrated by the fact that identical specimens occur in both red-firing and pale-firing clays. This is certainly the case in Satricum, where basins with slightly curving walls and plain or slightly thickened rims occur simultaneously in both fabrics. These specimens may therefore be identified as the earliest version of the basin to be manufactured in pale-firing clay.

There is one other shape that regularly confirms the simultaneous use of different clays. This is the shallow basin with tapering rim and a band-shaped convex thickening on the outside. This type seems to occur from the second half of the sixth century.

In setting up a typo-chronology for the white basin in Satricum, it would be helpful if there were clear points of reference. One fixed point is of course provided by the terracottas of Temple II, which are dated to 500/480. Given their mutual resemblance, it seems safe to connect the second, more heavily tempered variety of white ware with these terracottas. Both were probably produced in the same workshop. It was suggested above that the production of white, augite-tempered fabric had already started prior to that date. Here we can add that this probably applied to the fabric defined above as the first group, which macroscopically reveals a temper-content identical to the second group, but finer and with a higher density. This view is supported by the stratigraphic occurrence of this group in the Poggio dei Cavallari. As we have seen, the stratum connected with structures j and g/i has consistently yielded fragments of large white basins assignable to our first group (Fig. III). Ware from the second group, or so it appears for the moment, is absent both in the stratum itself and in the underlying sandy sub-stratum, but is abundantly present in the dump stratum on top.

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222 On the occurrence of this basin or large bowl type in red fabric in Satricum, see Maaskant-Kleibrink 1987, 117. In general for Latium, cf. Carafa 1995, 196-231. On the simultaneous use of red and white firing clays, see Nijboer 1998, 121-122, who reports the find of wasters in both fabrics in a late sixth-century oven on the acropolis.
223 Cf. Clementini/Rossi Diana 1988, 43, their type F2; also Carafa 1995, 238-242, esp. 242. The type occurs in Votive Deposit II only from layer 8 (T48) and layer 10 (T 34 and T 38), that is after 440/430, see Bouma 1996, I, 378-379; II, pls. CXI-CXII.
225 Cf. Nijboer 1998, 128. Unfortunately it is not entirely clear whether the wasters found in the oven on the acropolis are of Campanian pale fabric or Late-Archaic fabric; see ibidem 122, where it is remarked that the decorated pale Archaic tiles found in the sub-structure of the kiln are not reported for the Late-Archaic temple.
An important question with regard to the white basins of Satricum is, of course, the duration of their production. Were they still being manufactured throughout the fifth century and even into the fourth? We here have the relative chronology of Votive Deposit II to help us. The occurrence of the basins in layers 8 and 10 (440/430-375) would appear to indicate that the shape and the ware had quite a longevity in the Satricum settlement. But, as has been shown, the distributional evidence used to date the various categories does not provide any fixed dates. Unfortunately, the nearby Votive Deposit III, which provides many examples of material affinities, has yielded only one large piece in white clay (a white dolium). It should also be noted that the fifth-century graves in the Southwest Necropolis did not yield a single item of pottery in this ware (although admittedly these graves did not contain large household vessels, as we will see). The answer must therefore be sought in the layer overlaying the dump stratum. This layer, which covers the late fifth, fourth and third centuries, has also yielded some white ware fabrics among which are a few fragments of large basins (see below on this layer). Their presence in this layer would seem to confirm a long history of production for the white basin in Satricum. Their continued presence in the later layer further suggests that the basins in the dump are likely to cover the entire fifth century.

Another example of the longevity of large basin shapes is provided by the traditional type of basin, the teglia, with its high spreading or slightly curving wall and the characteristic four tongue-shaped lugs on the base. This type of basin, that may be considered the predecessor of the white basin, is recorded as early as the late seventh century, but its production seems to have continued well into the fifth and fourth centuries. As reported above, the dump stratum yielded one almost complete specimen, but also many fragments of others (Fig. IV). Fragments of teglie have also been found in the area’s top layer.

**Other coarse ware shapes**

The dump stratum has yielded many other coarse ware shapes, including a very large number of storage jars (dolia) of various types and sizes. The oldest types have an overhanging rim decorated with concentric grooves (seventh-sixth centuries). The later types from the fifth-fourth centuries have a plain rim.

Notable among the larger shapes are some fragments of Etruscan amphorae (Cat. nos. 70-71; Fig. VIII). This amphora is known in Satricum from the Southwest Necropolis, where three specimens have been found.

As reported above, plain jars are abundantly present and exhibit an enormous variety of shapes. A particularly interesting type of jar is the mug with either two or four lugs under the rim. At least twenty specimens have been recorded (Cat. nos. 84-86; Fig. X). This shape is less well represented in the rest of Satricum. Votive Deposit II has yielded only

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226 This is a fragment of a large dolium with a rim thickened and rounded on the outside.

227 For a discussion of the lugged teglia, see Bouma 1996, I, 376-378 (with references). For the late seventh and sixth century examples, see Colonna 1963-64, 24-28; for the later occurrence of the type in Artena, in fourth and third century contexts, without any obvious change in shape, see Lambrechts 1996.

228 The wall of the complete specimen shows an intentional perforation which is related to the function of the basin. For similar specimens in Satricum, see Bouma 1996, I, 377-78, and nn. 687, 689; for Artena, see Lambrechts 1996, figs. 80-81, nos. 353, 360, 372 (with dates in the first half of the fourth-beginning of the third centuries).

229 Stibbe 1992, 83-84.
seven specimens and the Southwest Necropolis only two. All those specimens recorded in the dump stratum are black inside, clearly reflecting their use as cooking pots. The outer surface is often smooth. Fragments of such mugs are still present in the top stratum of the area, an indication of the longevity of the shape.

Numerous lids and lid-bowls have also been recorded. Almost all are of the type with knob ‘a becco a civetta’, which was widely diffused in Etruria and Latium in the sixth and fifth centuries but is also known from later contexts.

**Red-slipped bowls**

The dump stratum has yielded a large quantity of depurated ware. The most conspicuous category is that of the so-called red-slipped bowls (Cat. nos. 87-96; Fig. X; Pl. 46). The bowls are manufactured in depurated orange or red clay and are usually covered by a red slip that may vary in gradation, sheen and quality. The first occurrence of this ware in Satricum is attested around 530 and bowls made of it form a large group in the Southwest Necropolis. There are a few parallels in Latium, but the ware seems to be far more common in the Faliscan area and in Veii. As may be inferred from these contexts, it had a long life covering at least the fifth and fourth centuries. Unfortunately, as with the white basins, the longevity of the red-slipped bowls disqualifies them as a dating tool for the dump stratum. However, its early occurrence in Votive Deposit I (two specimens) and in layer 2 of Votive Deposit II (two fragments), combined with its continuous occurrence in both the dump stratum and the top stratum in the Poggio dei Cavallari (see below), can be taken as confirmation of the long period covered by the dump stratum.

To summarize the above, it can be concluded that the dump stratum contains various pottery shapes that originate in the sixth century and probably cover a large part (if not the whole) of the fifth century. Fixed dates for the stratum are few and derive only from a handful of black-glazed items that are dated between 525 and 450. This date accords with the find of two Late-Archaic roof-tiles underneath and against wall ab, which are dated to 500/480 and serve as a *terminus post quem* for the construction of the wall. In accordance with the secondary nature of the dump stratum, any fixed dates of pottery found there can also be taken as *terminus post quem*. With these dates to guide us, and taking account of the observed continuity in pottery shapes presented above, it seems plausible to set the date for the rebuilding of the road somewhere around the middle of the fifth century. This date is apparently confirmed by the layer on top, which contains finds from the second half of the fifth century onwards.

3. **The top stratum**

The top stratum that has been encountered in two places within the excavation area (see

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230 See Bouma 1996, I, 386, on the mugs in Votive Deposit II, with references. Gnade 1992a, 86, Fig. XXIV (grave 62.4).


232 This date is based on the presence of two specimens in Votive Deposit I, which has a closing date of 540/530; for the bowls, see CatGrande Roma 1990, 240; also Bouma 1996, I, 314, n. 71.

233 See Steures 1992, 54-55, where the ware is tentatively defined as reddish bucchero. Also, Steures 1991.

above) has generally yielded smaller pottery fragments than the dump stratum (Figs. XII-XV). The majority of these are either heavily worn or appear to have been subject to secondary burning. This is particularly true of the top stratum in the eastern part of the excavation, which has a larger surface area and has accordingly yielded a larger number of pottery fragments. Coarse ware still constitutes the largest group of material and here is usually lighter in colour than that encountered in the dump layer. It seems to have been fired at a lower temperature, which may account for its generally worn appearance. The most striking feature is perhaps the comparatively thin walls of the vessels. A marked predominance of orange fabric is also observed.

In the top stratum we encounter, for the first time, a large number of Late-Archaic white roof-tiles. Among these are a few nearly complete specimens and one fragment of a Late-Archaic antefix of a satyr and maenad (Cat. no. 1711; Fig. XV).

Other elements unknown in the lower strata of this area are: a new vessel-type, the high-rimmed jar, often with a characteristic almond-shaped thickening on the outside of the lip (encountered especially in the eastern part; Cat. nos. 141, 144, 174; Figs. XIII, XV); a coarse ware jar decorated with a thin plastic cord below the rim, either plain or with finger-impressions (frequently attested) (Cat. nos. 163-166; Fig. XIV). Parallels from other sites suggest that the decorated jars might date from the fifth century, though the fourth century is more likely. The high-rimmed jar is dated from the mid fourth century onward. In Satricum itself both types of vessels are as yet only known from Votive Deposit II. Here the decorated jars occur in all layers, but are most abundant in layers 8 and 10 (respectively dated between 440/430-c. 375 and after c. 375). The finger-impressed cord decoration is considered a local taste. The high-rimmed jars occur from layer 8 onwards, but are more frequent in layer 10.

The date of the new repertoire of jars accords with a few late black-glazed items that have been recorded in the top stratum. Among these are two small cups dated to the late fourth and to the third centuries, respectively (Cat. nos. 184-185; Fig. XV). Other probable fourth-century elements are a high beaked jug of white depurated ware and a nearly complete black-glazed one-handler, both found in the top stratum of section III (Cat. nos. 149, 160; Fig. XIII). The jug has an exact parallel in Frosinone. A parallel for the one-handler is found in the Southwest Necropolis. Another nearly complete pot in this stratum is a miniature cup with exact parallels in both the Southwest Necropolis and the Southwest Sanctuary (Cat. no. 148; Fig. XIII).

Many shapes that are recorded in the dump stratum recur in the top stratum, reinforcing

235 Cf. Bouma 1996, I, 368, n. 568, on thin walls as a characteristic of late Republican impasto pottery.
236 Most parallels for the jars with encircling cord-decoration are found in Artena. These date from fourth-century contexts. See Lambrechts 1989. A few earlier specimens dated to the fifth century are known from Veii, see Threipland 1969, 3, fig. 7, no. 19; no. 21.
237 On the high-rimmed jars, see Bouma 1996, I, 368-369, with references; see also n. 568 on the characteristic thin walls of the high-rimmed jars.
238 See Bouma 1996, I, 348-351 (decorated jar, his type III).
240 The small cups can be classified under Morel type 2783-2787/Lamboglia type 24(25); late fourth century (specimen S 289/3/3, found in the layer on top of the battuta in front of wall z) and Morel type 2783-4/Lamboglia 27: third century (specimen S 309/13/1, found at the back of wall z).
242 Gnade 1992a, grave 8.2, Fig. IV, Pl. 2.
243 Gnade 1992a, grave 167b.5, Fig. XXIV, Pl. 10; Ginge 1996, 102, LVD16 (type D), Fig. 29.
our impression of their longevity. This principally concerns coarse ware shapes like the large storage jar, the lugged basin, the mug and the lid-bowl with knob a becco a civetta. But production of some of the depurated ware also seems to have continued, the red-slipped bowls in particular. As implied above, the quality of the fabrics appears to be dwindling. This is perhaps most clearly shown by some of the red-slipped bowls. These are often flaked and their slip is much paler. The clay of these and other depurated wares also appears to be softer and more powdery. Most of the recurring shapes do not exhibit any fundamental changes, with the exception of the rims of the plain jars that are now higher and have almond-shaped profiles. The latter feature may also be noted in some of the large storage jars. Simultaneously, a new type of rim seems to occur in the storage jar: flat on top and rectangular in profile.

One category that deserves some attention is formed by a small, coherent group of Iron Age impasto fragments found dispersed throughout the top layer, the majority in the eastern part of the excavation (Pl. 47). Among these are a few fragments of a triple-reeded handle of black impasto with a waving ridge on the central reed; two or three wall fragments with vertical ridges that recall the anfora di tipo Alfedena; and several large fragments with an incised geometrical decoration resembling that of sub-Apennine pottery. All the fragments are burnt. The occurrence of these ceramics in a fifth-fourth century context is remarkable. The group appears to constitute a unity and recalls similar 'out of context finds' in earlier contexts in Satricum. On these occasions their presence was taken as an indication of transhumance contacts during the Orientalizing period. The typical 'Apennine' decoration scheme was considered evidence for surviving Bronze Age traditions in the Orientalizing period.244 The find of similar sherds in the top stratum of the Poggio dei Cavallari, in combination with fragments that probably come from seventh-century amphoras of the 'Alfedena type', gives support to this theory of early transhumance contacts.245 One other possibility is that the fragments were part of a grave outfit that was dispersed in the area after having been destroyed. An interesting parallel is offered by the find of two similar sherds in the fill of a grave in the Southwest Necropolis.246

3.2.3. Conclusions

The general impression created by the pottery from the three main strata on top of the road is one of continuity. Indeed, the obvious continuation of certain shapes makes it impossible, at the present stage of study, to make a clearer chronological distinction between the three strata other than the one already presented. The few datable items that are present in the top two strata tempt one to venture more specific dates (i.e. somewhere in the first half of the fifth century for the dump stratum, and somewhere in the fourth and early third centuries for the top stratum) but the evidence is too thin for such a strict

244 See Waarsenburg 1995a, 228-231, with many parallels. See also Cristofani 1992, 13-24, who ventured a similar hypothesis with regard to the diffusion of other indigenous Iron Age elements, such as the amphora of the Alfedena type and the fibula a tre bozze. The latter are also present in Votive Deposit I (CatLazioPrimitivo 1976, 328-329, cat. 108, 44-46, pl. LXXXVIII).
245 On the amphora of the ‘Alfedena-type’ and its diffusion, see Cifarelli 1999, 51-58.
246 Gnade 1992a, 301 (grave 111, no. 1), Fig. XXIV.
chronological distinction. A bridge between the two is possibly offered by the material from the fifth-century Southwest Necropolis, which appears to have parallels in both. Apart from resemblances in the more general shapes (the plain coarse ware jars and depurated bowls) the dump stratum has also yielded the bucchero kantharoi with double-reeded handles, the Etruscan amphorae, some fragments of jars with perforated rims, and a few miniature footed bowls (kalykes). As for the top stratum, the poor quality of some of the fabrics encountered there strongly recalls similar material from the Southwest Necropolis, for example the soft and powdery texture of many depurated wares and the often flaked surfaces of the red-slipped bowls. There are also a few direct links, such as the nearly complete one-handler and the miniature cup in the top layer of section III. These have near identical parallels in the graves of the Southwest Necropolis.

Outside Satricum, the material discussed (i.e. the ordinary vessels) has close parallels elsewhere in ancient Latium, in places like Veii, Castel di Decima, Lavinium and Laurentina. It therefore fits well into the general panorama of Latial Post-Archaic pottery production. Fixed dates are, however, not provided by these other findplaces, partly because particular vessels were produced without notable changes in shape over such a long period and partly because of a lack of well-dated contexts.

In Satricum itself, the chronology established for similar material in Votive Deposit II is of help only in the more general sense, since it is primarily based on 'internal evidence'. Moreover, as has been shown, the relative chronology established for the layers of the deposit is not very solid and the dates proposed there should be adopted only with caution. As will become apparent in the discussion of the pottery in the graves of the Southwest Necropolis, attempts to link vessels in the graves with the typo-chronology set up for vessels in the deposit have certainly not worked out (Ch. 3.3).

With regard to the later history of the Late-Archaic road, three main phases have been recorded. Somewhere in the last quarter of the sixth century, probably towards its end, the road was seriously damaged, perhaps even destroyed, by events involving a large fire. The exact moment of this destruction could not be established.

Given its importance as the main artery of Satricum, it may be assumed that some restoration of the road took place shortly after its destruction, i.e. in the late sixth or early fifth centuries. Evidence for this restoration has only been recorded in the western part of the excavation and is associated with structures g/i and j, north of the road. It seems that the level of the road was then raised and a new pavement laid out.

A second, more substantial raising of the road level has also been recorded, especially in the western part of the excavated area where it is associated with a new wall a/b. A comparable, but less well-preserved situation was encountered in the eastern part. Here, structure z is tentatively assigned to the same rebuilding phase. In order to raise the level of the road, an enormous quantity of building and domestic debris was dumped on the road and subsequently covered with a new pavement, as recorded against wall a/b in section III. A more substantial, but probably simultaneous pavement was discovered in the eastern part of the area in the form of a terra battuta. It has been tentatively associated with structure z.

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The second rebuilding phase is probably not linked to a second destruction of the road. Certainly, no signs of any such destruction have been encountered. Given the extent of the rebuilding and the proposed function of wall a/b as an encircling wall with a protective function, it appears as if the road may have lost its former status as the main route leading up to the acropolis.

3.2.4. Graves to the north of the road

The presence of a necropolis to the north of the road relates directly to its later history. Research in this part of the excavation revealed an apparently empty area consisting of sandy virgin soil covered by a thin surface layer. The area had obviously been levelled in recent times, but in spite of this still yielded evidence of ancient activity. At various distances ranging between three to eight metres from the road, four fossa-graves have been recorded (Fig. 5). The presence of a fifth grave is assumed. Three graves have been excavated. They were probably part of a larger burial ground, as may be inferred from the discovery, in two trial trenches, of two other graves at a much greater distance from the road (Fig. 3).248

The five graves nearest the road have all been dug into the virgin soil and are arranged, with slight variations, NNW-SSE. One grave, ST 2, appeared fairly well preserved to a depth of c. 0.70 m. Its surface dimensions are 1.90 x 0.70 m (Fig. 20; Pl. 42). The upper filling of the grave consisted of a layer of c. 0.35 m of predominantly white tufa lumps (diam. 0.10-0.30 m). Underneath this filling four lateral benches were recorded measuring c. 0.25 m in width and c. 0.15 m in height. Between the benches, in the clay-like lower filling, a rectangular delineation of the original wooden coffin was visible as a greyish strip along the east, south and west sides. On the bottom of the grave were the fairly well preserved remains of a skeleton, lying on its back with outstretched legs and the arms extended alongside the body. In the northeast corner, next to the skull and inside the coffin, were two vases: an orange bowl at the north wall of the grave and a small stamnos of plain, soft pinkish ware to the south of it, leaning slightly towards the west (Pl. 42). A bronze fibula was recorded near the right shoulder of the skeleton. Based on the skeletal and dental remains, the individual has been identified as a girl about 15-18 years old. Study of the bones revealed that the girl had been seriously ill and had suffered from various diseases which probably caused her death (see appendix on skeletal remains). About nine metres to the northeast of grave ST 2 and about eight metres north of the road, another grave has been excavated (ST 1). Of the small rectangular fossa only the lower part (c. 0.10 m) appeared preserved. Its surface dimensions were c. 1.10 x 0.50 m. Originally the grave had benches along the long sides. These were still present for c. 0.30 m in the south. On the bottom was a fairly well preserved skeleton of an infant (0-1 years old). It was lying on one side, probably with the knees pulled up. On the left and right shoulders the poorly preserved remains of two bronze fibulae were recorded, together with a few small fragments of bronze on the pelvis.

The other grave, ST 3, was almost completely destroyed. Only its bottom level appeared preserved. Neither grave gifts nor skeletal remains are recorded. It is lying four metres to the east of grave ST 2 and has a preserved length of 1.25 m and a width between 0.45 m

248 See Gnade 1997b, 98-99, where it is suggested that the graves may date from the Roman period.
(S-side) and 0.35 m (N-side). Graves ST 4 and 5, situated about four metres north of ST 2, have not been excavated.

The two graves found in trial trenches 8 and 9, at some distance from the road had been dug into the tufa table. They still contained skeletal remains. In one case the skeleton was fairly well preserved and could be identified as that of a child c. 2-3 years old (PL ). It was lying on its back with outstretched limbs (PL 41). The grave measured c. 0.80 and had rounded corners. Due to its position along the foundations of a Roman wall (belonging to a villa located in the north part of the excavation area) and to the good preservation of the skeleton, the grave was initially identified as Roman or later. However, analysis of the bones has indicated that they probably belong to the group of burials discovered along the road. Their good state of preservation is probably due to the fact that they were lying in the tufa table. The assignment of this grave to the group beside the road is crucial to any assessment of the size of the cemetery. It implies that the cemetery covered a considerable area and was probably even larger than the Southwest Necropolis. Confirmation is provided by the position of the second grave. This was discovered more to the east, in trench 9, halfway between the road and the grave of the child (Fig. 3). In this case only the remains of the pelvis and legs of the skeleton were brought to light. These bones are still awaiting analysis. Unfortunately, both graves were without finds, perhaps due to the fact that only the deepest parts were preserved.

Taken together, the type of grave involved and the finds in grave T 2 allow us to classify the burials north of the road with the graves in the Southwest Necropolis (Ch. 3.3) and with those on the acropolis (Ch. 3.1.2). The occurrence of graves in this section of the settlement therefore points to a third necropolis at Satricum that can be dated to the fifth century. With regard to their position in the general lay-out of the settlement, it is striking that each of the necropoleis is close to a road. The Southwest Necropolis is bordered on its eastern side by the presumed main road entering Satricum from the south, while on its northern side remains of a probable pavement consisting of pebbles and large tile fragments have been recorded.249 The graves on the acropolis were laid out along the eastern stretch of the central road dated to the Archaic period.250 The important inference here is that these roads must still have been in use during the fifth century.251 The continuity of the road in the Poggio dei Cavallari during the fifth and possibly the fourth centuries has been illustrated above.

The three necropoleis supply ample evidence for concluding that life in Satricum went on, though clearly according to different norms. The significance of their spatial distribution within the area of the sixth-century settlement, and the historical implications thereof, are matters to which we will return.

249 Although the entrance road has not been excavated, its existence can be inferred from Mengarelli’s plan. For an description of the remains along the north side of the cemetery, possibly identifiable as a road, see Gnade 1992a, 7.
251 Also Maaskant-Kleibrink 1992, 22; Bouma 1996, II, 32.
3.2.5 Sporadic finds in the lower settlement

So far, the Poggi dei Cavallari is the richest archaeological area in the lower settlement of Satricum. It offers evidence for a continuity of occupation which covers at least the sixth, fifth and fourth centuries. The preservation of the archaeological remains is largely due to the fact that the ground was one of the last areas of ancient Satricum to escape the vineyards.

In spite of the major agricultural interventions of the 1960’s, the lower settlement of Satricum still occasionally yields material that can be linked to the fifth- and fourth-century occupation. For example, large-scale deep-ploughing, carried out in the spring of 1994 on the southern side of the modern road between Nettuno and Cisterna, brought to the surface numerous finds dating to the Archaic and Post-Archaic periods.252

Almost half the surface area of the ancient lower settlement was affected by the ploughing, but some of the original undulations of the ground have remained visible. This may explain the clusters of finds from later periods. The Post-Archaic finds, for example, seemed to be concentrated along the higher ground at the western foot of the acropolis and on top of the elongated hill of the Macchia Santa Lucia, northwest of the Southwest Necropolis. The elongated hill has yielded pieces that are comparable in fabric and shape to others found in the dump stratum on top of the road. These finds can be assigned to a habitation area that is indicated on Mengarelli’s map as tracce di antiche abitazioni and have been variously attributed to the sixth and the fifth centuries.253 Both options are of course possible if one accepts the idea of a continuous habitation of the area (see below). Certainly the deep-ploughing of this hill yielded pottery fragments dating to the fifth century.

Aerial photographs of the ploughed area have further revealed traces of rectangular structures, probably ancient, immediately south of the modern road. One large white tufa block which surfaced during the ploughing can be attributed to these structures. The proximity of the Poggi dei Cavallari on the other side of the road implies a connection with the remains recorded in the top strata there.

In 1983 similar agricultural activity in the area of the alleged sixth-century rampart yielded comparable fifth-century and also later finds. The area was systematically surveyed in 1984.254 A considerable amount of material was collected, some of which exhibit close parallels in fabric and type to finds both from Votive Deposit II on the acropolis and from the top layers of the Poggio di Cavallari.

The same area was investigated again, but more thoroughly, in the spring of 1998.255 Ten large trenches were set out in order to verify the remains of the sixth century rampart. Contrary to expectations, the area did not reveal any ancient structures. The highest parts, located inside the assumed course of the rampart, yielded only virgin soil lying immediately below the present humus, thus indicating that the ground had been levelled.

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252 See Gnade 1997a, 51 for the first report of these finds. Though a concession to survey the ploughed area was given by the Soprintendenza of Latium, no such permission was obtained from the owner. Finds could only be collected during a quick, one hour, survey. When we finally got the permission to enter the property in the spring of 1998, only a few artifacts were still present.


255 For a report of this research, see Gnade 1999, 31-50.
Not a single ancient artifact was found in this area. The probable explanation is that the original upper strata were shoved northwards down the slope along the course of the modern road, where a modest quantity of artifacts were recovered in small concentrations during the survey of 1984. But it is also possible that these artifacts are from the Poggio dei Cavallari, on the other side of the modern road. Some evidence for their secondary deposition is provided by the discovery of a sealed stratum, datable to the third and second centuries, that was recorded c. 1.20-1.60 m below the modern surface in an excavation trench. But whatever their exact provenance, the finds collected during the survey invite the conclusion that this part of the ancient town was also occupied during the late fifth century.

3.2.6 Conclusions

With the discovery of the Post-Archaic remains in the Poggio dei Cavallari an important contribution has been added to the later history of Satricum. The finds are significant in two key ways. Firstly, they provide the only example so far in the archaeological record of Satricum of a stratigraphical continuity covering both the Archaic and Post-Archaic periods. Secondly, they constitute the link (in both the physical and the archaeological sense) between the acropolis and the lower settlement area.

One of the implications of the finds in the Poggio dei Cavallari is that during the fifth and fourth centuries, the settlement had obviously retained some of its former level of organization. The lay-out and construction of the Post-Archaic walls a/b and z, though displaying much variation in materials and execution, are in themselves evidence of a technical and organizational know-how that was clearly still available. Moreover, the energy invested in such a labour-intensive enterprise is certainly comparable to that required for the construction of the Late-Archaic road.

It is likely that the road remained in use for a long period. This may be inferred from the establishment of a cemetery on its north side. Unfortunately, the dates of the few recorded grave gifts do not tell us when precisely the graves were laid out: whether this happened, for instance, before or after the restoration of the road. However, the similarities of the graves with those of the Southwest Necropolis, which cover the whole of the fifth century, suggest that the latter option is the more likely.

Without doubt the necropolis must have extended far beyond the five graves documented so far. This is strongly implied by the two isolated graves discovered in the trial trenches. Moreover, during the excavations many references to the destruction of graves during the levelling of the area were made by the local workmen. The present sterile character of the terrain alongside the road is obviously the result of these activities. On the south side of the road the amount of earth removed must have been far greater. To get an idea of the scale of the operation one has only to compare the present lie of the land with that of the only part of the area which has preserved its former level. The conclusion that much less ground was removed from the north side of the road is supported by the preservation of some of the graves there. It is probable that the original surface of the terrain sloped down towards the north.

The excavation of the Poggio dei Cavallari area has yielded new and irrefutable evidence for the continuity of the settlement of Satricum during the fifth and fourth centuries.
Although remains of actual dwellings are unfortunately still lacking from the archaeological record, the quantity and character of the pottery recovered can only be understood in terms of a large community that was living on the spot. Moreover, the artifacts collected from the few soundings taken must constitute only a very small percentage of the whole, given the extent of the area and its consistent stratigraphy.

The upper strata of the Poggio dei Cavallari, and especially the dump stratum, are also significant in another respect. As a rubbish dump containing building debris (a large number of red roof-tiles, tufa lumps and some bricks) it is quite conceivable that the material did not come from far away but was collected in the immediate neighbourhood, perhaps when the area was cleared after having been razed. This would certainly imply that dwellings were present in the area, but also that they originated in the sixth century and were still inhabited during the fifth. Some support for a construction date in the late sixth century is provided by the red tiles, which are all of type II. The white or light coloured tiles that were manufactured from 500/480 c. are, with a few exceptions, notably absent in this particular stratum. And this in obvious contrast to the presence in the same stratum of large household vessels in Late-Archaic white fabric.

It would not be unreasonable to suggest that this observed pattern of occupation - under which Archaic structures remained inhabited (possibly following restoration) during the fifth century - applied to the whole area of Satricum. The striking absence of remains that can be linked to late sixth- and fifth-century habitation can be plausibly explained by the fact that almost all the areas investigated have been stripped of their original top layers. Even the Poggio dei Cavallari, one of the last areas of ancient Satricum not yet covered by a vineyard, contained only two small patches with their upper layers still intact.

As we have seen, the lower settlement still yields occasional evidence that can be linked to the fifth- and fourth-century occupation, large-scale agricultural interventions notwithstanding. Anticipating our final conclusion regarding the fifth-century occupation of the town (Ch. 5), already referred to in Ch. 3.1.1, a pattern of occupation similar to that suggested for the Poggio dei Cavallari may here be proposed for the acropolis. This hill is the most noted (and quoted) area regarding the presumed absence of evidence for a fifth century occupation. Although there is no direct archaeological evidence that sixth-century structures were occupied in the fifth century, there is certainly none to indicate their destruction at the end of the sixth or the beginning of the fifth centuries. Rather, it now looks as if the top layers of the entire acropolis are missing, and with them the floor levels, pavements and upper parts of the Archaic buildings. The excavated remains are mostly found directly beneath a thin layer of humus. I am therefore convinced that the top of the hill has also been stripped off and that this is one of the main reasons for the lack of finds indicating a fifth century habitation. There is, however, indirect evidence for the occupation of the hill in the fifth and fourth centuries and it is provided by the contents of Votive Deposit II. Comparing the contents of this deposit with the top layers of the Poggio dei Cavallari, one cannot but notice the remarkable resemblance between the two contexts, both in terms of the types of vessel occurring and the composition of certain layers. Given this resemblance, it could be argued that the enormous quantity of disparate material (predominantly household ware) in the lower strata in the deposit, especially layer 8, is in fact nothing more than rubbish (pottery, both domestic and votive, and building debris).
collected during a large-scale clean-up of the area. As has been shown in our discussion of the pottery of the dump stratum of the Poggio dei Cavallari, many coarse ware shapes that are present in Votive Deposit II may well originate in the late sixth century, thus before the initial date set for the deposit.

It is fully legitimate to conclude, based on the abundance of finds datable to the fifth and fourth centuries, concentrated or dispersed all over the former Archaic settlement, that life in Satricum continued. While some of the former dwellings probably remained in use, new structures were undoubtedly erected. At least three specific areas were selected for the layout of new cemeteries, probably in the direct neighbourhood of habitation areas but separated from them by roads, which would have acted as actual and symbolic dividing lines.

This separation of the dead from the living was reinforced in the Poggio dei Cavallari by the erection of wall a/b. The apparent strangeness of its position, if we accept it as an enclosure or defensive wall, may be explained by the desire to reinforce this separation. The terrain seems to be far more suitable for the construction of such a wall some hundred metres to the north. But in that position the wall would have enclosed the cemetery within the civic area. On the other hand, we have to bear in mind that the original morphology of the area has been fundamentally changed and that the area inside the wall (i.e. to the south of the road) was probably much more of a slope.

A comparable division between habitation area and burial zone also existed in the case of the Southwest Necropolis. Here, the adjacent hill of the Macchia S. Lucia, located to the northeast of the town's presumed entrance road, can be identified as the probable habitation area (Fig. 1). Evidence for a residential quarter consists of the tracce di antiche abitazioni indicated on Mengarelli's map. This has recently been extended by pottery fragments, dating from the fifth century, which have surfaced as the result of ploughing.

On the acropolis, the Via Sacra - west of which the graves were laid out - may similarly be interpreted as the "barrière" between the living and the dead. The likely habitation area would then have been on its east side.

The existence of three cemeteries that at first sight appear virtually identical implies a dispersed pattern of settlement in which different groups belonging to the same community had their own burial places. To gain an impression of the nature of this community, we need to take a closer look at the graves and related burial rites that were practised in the largest and best known fifth-century burial ground so far excavated at Satricum, the Southwest Necropolis.

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257 Cf. Bouma 1996, II, 32, who considers the road a dividing line between the sacral and funeral areas on the hill.

258 This suggestion was made earlier by Maas Kant 1997, 148, in relation to the existence of two cemeteries dating from the fifth century.
3.3 THE SOUTHWEST NECROPOLIS

3.3.1 Introduction

The second area of the ancient town which has so far escaped agricultural interference is the southwestern section just inside the settlement boundaries (Fig. 1). It has yielded a burial ground which can be dated to the fifth century. Its discovery in 1980 was the first in a series relating to the so-called Post-Archaic era. The following summary is based on my publication of the necropolis, which appeared in 1992.259

In the period 1980-1987 approximately 1,750 square metres of this necropolis was dug up. About 210 graves were documented, 167 of which were actually excavated (Fig. 18). Subsequent analysis has revealed a picture of a homogeneously organized necropolis, comprised of four different types of rectangular grave. These are laid out along two main orientations and are regularly furnished with burial gifts. The graves have been dug in the virgin soil as simple trenches without stone linings. In at least 70 of the 167 excavated graves, ledges along the long sides formed a kind of bench. Nineteen were provided with small rectangular pits in the corners of the floor, and 12 had a niche in one of the long walls. The original upper surfaces of all the graves were removed by bulldozers during recent levelling of the area. Nothing is known about them.

Inhumation is the only recorded form of burial. Most of the dead were placed in rectangular wooden coffins, either flat-bottomed or with feet which fitted into the pits in the floors of the graves. Within the coffin the body lay in an extended, supine position, with the arms either at the side or crossed over the pelvis below the elbow. In at least three graves the dead were protected by roof-tiles.

In general, the skeletal remains were poorly preserved and only in a limited number of instances could a gender be established. The teeth, being more 'durable', have been studied closely for what they can tell us about the age and health of the deceased. Recent study of the osteological remains has been able to draw new conclusions pertaining to diet. These will be presented below. Most of the buried individuals were adults, but there are children and young adults as well. Children have been identified with certainty in 12 graves.

The dead were usually buried with grave goods. These could vary considerably in kind and number. Vases are the most common and were found in 129 burials. In most cases they had been placed near the head, either on one of the ledges or on the lid of the coffin. There was usually a selection of locally made vase-shapes suitable for cooking, eating, drinking or storage. Imported pottery is rare. The number of vases varies from grave to grave and there seems to be no standard assortment. The usual range is from one to five pieces. However, in 21 instances there were six to nine pieces, while three 'rich' graves had as many as 14, 18 and 24 vases respectively. It is striking that in these cases the graves belong to children.

The burial practice for children was much the same as for adults. They were placed in wooden coffins and given a variety of grave goods. The sizes of their graves were adjusted to their small dimensions.

Most personal objects lay on top of the skeleton or very close to it. These comprise a limited number of iron and bronze fibulae, iron spearheads and lanceheads, ornamental pins, miniature lead weapons and lead amulets. Lead was much used for objects with a ritual or symbolic meaning and was found mainly in the graves of children. The miniature lead weapons in these graves may be considered as symbolic substitutes for real weapons. One of these lead weapons, a small axe, has an inscription on one side. The alphabet is unknown in Latium and points to a Sabello-Faliscan source.

The arrangement of the graves shows a certain degree of organization. The great majority lie along the principal axes of the compass: N-S or E-W. In the northeastern section the distribution is rather orderly and well-spaced, with some series placed in clear alignment. Towards the south, the density of the graves increases. Intersecting graves appear, especially in the southwestern section, where there is a large cluster of ten intersecting graves.

With the discovery of the necropolis in 1980 a new chapter was added to the archaeological record of ancient Latium. Until then, organized burial grounds containing graves regularly furnished with burial gifts had not been found for fifth century Latium (see below for a discussion of this phenomenon). The Southwest Necropolis constituted a novelty. Its very uniqueness led to fundamental discussion about its ethno-cultural identification. Was it a Latin burial ground or should it be regarded as a non-indigenous feature? For many, the coincidence between the archaeological record and the historiography was enough to allow the issue of identification to be raised (see Ch. 4 on the historical background). This view was not shared by others, who a priori rejected any 'historical interference' with the archaeological record.

Due to the absence of comparable finds in Latium, discussion regarding the necropolis has necessarily been focused on Satricum itself. The analysis of burial rites has therefore been restricted to an internal analysis.

This situation has not in fact changed after almost twenty more years of research. To my knowledge, no comparable burial grounds have been so far discovered in ancient Latium. Research in Satricum, on the other hand, has yielded even more graves from this particular period and significantly extended the general fifth-century record. Most of these finds and their interpretation have already been discussed. They are particularly relevant to the analysis of the Southwest Necropolis, which has thereby been freed from its isolated position. Although no dwellings can yet be related to the graves, the finds yield a large body of ceramics that directly refer to the daily activities of the fifth-century community. I will refer often to these finds when dealing with the necropolis.

Two other necropoleis have been identified - on the acropolis and in the lower settlement - both of which contain graves identical to those in the Southwest Necropolis. These are

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260 See Gnade 1992a, 15-16, for the attribution of the Southwest Necropolis to the Volscians. For a reaction see, Attema et al. 1992, 75-86 (esp. 82-84); Bouma 1996, I, 194-200.
262 For instance, Attema et al. 1992, 75-86 (esp. 82-84); Bouma 1996, I, 194-200.
263 A possible candidate is provided by a series of graves discovered and excavated in the 1960's in the town of Frosinone. These finds were, however, not published. The objects from the graves have recently been 'rediscovered'. They have been restored and are now on display in the town's recently opened archaeological museum. I will later return to this material and to its significance for the discoveries in Satricum.
only of minor interest to the burial record since the sample of graves is too small and the information they yield does not substantially change our earlier analysis. Their main importance lies in their mere existence and in their spatial distribution within the area of the sixth-century settlement.

In the light of the new discoveries in Satricum, the burials of the Southwest Necropolis will be re-analysed from various points of view. The analysis will start with a review of the unique status of the necropolis in the context of the general lack of furnished burials from sixth- and fifth-century Latium. The organizing principles behind the layout of the necropolis will then be considered, followed by the composition of the population buried there. Possible associations between specific grave gifts and the age and gender of the deceased will be reviewed in the light of new results obtained from osteological research. Next, the general character of the grave gifts will be re-examined and their chronological value assessed. The analysis will end with a discussion of the nature of the fifth-century community and an investigation into the ethnic identity of the grave occupants.

The absence of furnished burials in sixth- and fifth-century Latium
The sudden appearance in fifth-century Satricum of furnished graves in an organized and coherent burial context stands in marked contrast to the noted absence of grave goods in burials in Latium during the sixth and fifth centuries. First signs of impoverishment in grave outfits are already observed at the end of the seventh century. For the sixth and fifth centuries, a very few (and rather exceptional) burials are known which suggest that burial in the traditional manner had become an increasingly restricted privilege. In Satricum burial activities seem even to cease completely at the end of the seventh century, a development preceded by the shift from the aristocratic hut-chamber in tumulus C to the modest tomb with far fewer objects. The date of the latest recorded burial in the Northwest Necropolis is set at 620/610, after which the necropolis seems to have been abandoned. No tombs have so far been assigned with any certainty to the sixth century.

Different explanations have been put forward for the change in burial practices in ancient Latium. According to a current theory, the cessation of burial expenditure is the result of a new sumptuary legislation of the sort found in the Law of the Twelve Tables. Modelled on the Solonian laws of early sixth-century Athens, the regulation of the Tenth Table would prohibit excessive funeral expenditure. In order to explain the time gap between the absence of furnished burials in Latium and the introduction of the Twelve Tables in 451/450, it has been suggested that there may have been an unwritten prototype

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265 For a survey of sixth- and fifth-centuries graves in Rome and Latium, see Naso in CatGrande Roma 1990, 249-269. See also Guaitoli 1995, n. 29, 560, for an updated survey, with literature. Recently, the excavations in Lavinium brought to light an exceptional chamber tomb with four depositions, dating from the second quarter of the sixth to the second half of the fourth centuries, Guaitoli 1995, 557-562.
266 Waarsenburg 1995a, 316-17.
267 Tomb XXIII is dated 620/610, see Waarsenburg 1995a, 119-20.
268 See Cornell 1995, 272-292, on the Twelve Tables.
269 See Colonna 1977, 131-165 (esp. 158-159) and 1981, 229-231. On the Tenth Table, see Ampolo 1984b, 81-92.
of the law in operation. This would not, however, explain the fact that burial practices changed 20 to 30 years before the Solonian laws. It may therefore be better to argue that the new funerary practices should be seen in the light of a general socio-economic change, under which new forms of wealth display were preferred. Such a change is placed in the context of the development of an urban culture in the Latin settlements, where public forms of displaying wealth were now encouraged. Resources were redirected from private burials to the community, either by means of offering gifts to the gods or, more explicitly and more directly related to the elite, by means of expenditure on public buildings and their embellishments. This in order to leave an impressive mark on the urban culture which simultaneously functioned as a permanent memorial.

It can be argued, however, that the socio-economic explanation is so closely linked to the elite that it does not immediately explain the general absence of burials, for instance, in the settlement at Satricum. This point is countered by the suggestion that, from very early in the Iron Age (i.e. in the ninth century), public burial within a necropolis may already have been a privilege restricted to those belonging to distinct social groups within the Latin community. Other lower ranked or 'poor' groups may have been consciously excluded or, even more likely, could not afford a burial and an outfit. These lower ranked groups may therefore be archaeologically invisible, their method of disposing of their dead leaving no identifiable traces in the archaeological record.

The idea of restricted burial for high ranking classes is quite plausible for Satricum's Iron Age Northwest Necropolis given the comparatively low number of burials relative to the total population. On the other hand, the possibility remains that many graves were destroyed during the agricultural activity of the 1960's.

The occurrence of furnished burials in fifth-century Satricum is in marked contrast to the general picture. Various explanations have been put forward to explain their presence. My belief is that the burials represent a group of inhabitants with a different cultural background and as such constitute evidence for an ethno-cultural change. In reaction, however, it has been argued that the existence of fifth-century graves provides evidence for believing that Latin burial practices had not been entirely abolished. The presence of empty graves in the Southwest Necropolis - of which there are a considerable number - is considered in line with the sumptuary laws referred to above. This suggestion recalls a similar hypothesis put forward with regard to a series of empty, or 'poor', graves in the necropolis of Castel di Decima. Here however, the graves are part of a burial ground which also includes eight and seventh century examples.

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271 Bartolini 1987, 143-144; Waarsenburg 1995a, 17.
273 See Smith 1996, 229-230, on the suggestion that those belonging to lower classes were excluded from burial. See also Morris 1987, 97-101, on the idea, formulated with regard to Athenian society, that formal burial was a limited privilege restricted to a certain rank or status.
274 See Waarsenburg 1995a, 150, presenting a summary chart of the burials of the Northwest Necropolis.
275 Gnade 1992a, 15-16.
276 See Bouma 1996, I, 200, who does not believe in the complete abolition of the custom of grave offerings. In his view, the furnished graves of the Southwest Necropolis should be considered as evidence for the continuation of former habits. The empty graves in this cemetery, on the other hand, should be seen either as exceptions to the rule or as individual choices and should be labelled - in line with our thinking about the abolition of grave gifts - as Latin graves.
Recently the individuals buried in Satricum Tumulus C have been put forward as ancestors of the group of people that more than 100 years later reappear in the Southwest Necropolis as the *gens* S. Lucia.\(^{278}\)

This highly speculative hypothesis invites a response. The decision to move a burial location must have been well thought out and would have probably been determined by the desire to have a separate necropolis. Latins would probably have continued to bury their dead in the original place (see below, for the discussion of this issue). It is, in any case, highly unlikely that they would bury their dead on the acropolis, where, as has been shown, graves identical to those in the Southwest Necropolis were laid out (3.1.2). It is here that we would first plead the case for a Volscian identification of the Southwest Necropolis. The distinct cultural background of such a community would explain the decision to bury their dead in another place, one that was physically distinct from the earlier cemetery.

Whatever the explanation for the general lack or even absence of graves in ancient Latium, it seems that burials during the sixth and fifth centuries were generally practised in ways which leave no trace in the archaeological record. The fifth-century furnished graves of Satricum can so far be regarded as the only exception to this rule.

### 3.3.2 Analysing the burial record

In analysing the Southwest Necropolis we are confronted with a well-known theoretical problem regarding the burial evidence. Due to the absence of contemporary dwellings, the necropolis constitutes our main source of information on the community living in Satricum. The obvious pitfall is to oversimplify the daily reality by taking the funeral record as a mirror of society. Generalisations are too easily drawn about the correspondence between burials and society, whether these apply to the classification of grave goods, the interpretation of their value, or the significance of differences in disposal or display. The range of possible interpretations is extensive, as is the number of studies on the relationship between the society of the living and the society of the dead.\(^{279}\) Grave goods might constitute the daily possessions of the deceased, but they might equally be luxury objects or prestige goods or symbolic items. Differences between burials can be interpreted as reflections of social structure, but can also be explained in terms of diachronic development and economic change. As with any other necropolis study, it is inevitable that in our attempts to understand the symbolic messages hidden in the burial record, choices and assumptions will have to be made which are often not easy to defend. It is thus quite possible that the picture to finally emerge will provide only a partial (or even a distorted) reflection of the community under discussion. In spite of this risk, however, the burials in the Southwest Necropolis, like those in any other cemetery, must be considered as direct ritual expressions of a living community and as such are a valuable

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\(^{278}\) See Kleibrink 1997, 150.

\(^{279}\) The literature regarding the 'archaeology of death' is abundant, having been at the centre of scholarly debate since the 1970's. For a bright synopsis of the different ways to approach the funeral evidence, giving the most relevant literature, see Waarsenburg 1995a, 18-20; also, Bietti Sestieri 1992, 9-20. On the reception of the 'archaeology of death' in Italy, see D'Agostino 1985, 47-58.
source that allows for some tentative observations concerning fifth-century society in Satricum. The information encapsulated in the burials has to be used, but without losing sight of its specific character.

The community buried in the Southwest Necropolis
The first impression given by the graves of the Southwest Necropolis is that they belong to a rather simple community, in which social differences were either slight or not visibly reflected in burials. None of the burials are particularly wealthy in comparison with the grave contexts of the former Iron Age cemetery. The graves themselves do not demonstrate obvious signs of status, while specific elements that may indicate social and economic differentiation are few or difficult to recognize. Such observations may, of course, be imposed on us by the simple character of the grave gifts and the rather uniform shape of the graves. Both these features apply, without obvious changes, throughout the period that the necropolis was in use. Unfortunately, the lack of contemporary burial grounds in the region prevents any comparative analysis regarding the social stratigraphy of the burials.

Because of the modest nature of the grave gifts we may not have been able to identify those goods which would normally be considered indicators of social differentiation. Objects of an apparently low value might have had some honorific status or intrinsic quality. Such a special meaning has been tentatively attributed to the large decorated jars with bosses on the shoulders. These occur with some frequency in one specific area of the necropolis, where they often constitute the only item. A special status may also be imputed to unique objects like the large bucchero amphora with double-reeded handles. Similarly, the only iron knife found in the necropolis may refer to the elevated social standing of the deceased. On the other hand, the absence of furnishings could indicate poverty, as could the presence of roof-tiles in some of the graves. Such tiles (secondarily used) may have functioned as cheap substitutes for a wooden coffin, the production of which must have been a rather a costly business. Their occurrence in graves without gifts may be taken as an argument supporting their association with persons of low social standing.

281 On these jars, see Steures 1992, 62-63; cf. also Bouma 1996, I, 190, n. 175 with a similar suggestion regarding the special value of the jars.
282 The vase was found in grave 157b, Gnade 1992a, 378-381; Stibbe 1992, 74-76, on the amphora.
283 The knife was found at the bottom of grave 35b, which for quite other reasons can be identified as the grave of someone of high social rank. The grave contained two large vases, a large jar with bosses and an Etruscan transport amphora. The latter has only two known parallels in the necropolis (graves 64.1 and 5.1). Further the grave was one of 19 with corner pits. See Gnade 1992a, 173-177 (on grave 35a); 26-27 (on corner pits). On the status function of knives and their association with female burials during the Iron Age in Latium, see Waarsenburg 1995a, 345 and n. 907, giving the most relevant literature. Compare also the necropolis of Alfedena, where the knife is a male-defined object, Paris Badoni/Ruggeri Giove 1980, xiii-xiv.
284 In at least 17 graves pottery gifts were absent. In the 42 other recorded cases the absence of pottery may be due to the levelling of the upper parts of the graves. See Gnade 1992a, 38 and Fig. 28, on the quantitative distribution of vases; ibidem, 35, Fig. 27, on the presence of other grave goods.
285 Tiles as a replacement for coffins have been demonstrated in three graves (80-81, 163) and may be assumed in at least two others (2 and 4), Gnade 1992a, 32-33. For a survey of graves with roof-tiles see CatGrande Roma, Le tombe della Laurentina, 255-256.
At the other end of the scale, some genuinely costly objects (such as imported pots) have been recorded among the regular pottery gifts. The rarity of these 'luxury' goods probably implies a superior social status. Many of these items, which comprise 18 vessels of black-glazed ware and 4 large imported transport amphorae, have been found concentrated in a section that also provided a high frequency of graves with comparatively high numbers of gifts.\textsuperscript{286} Imported pottery is rare, however, and constitutes only 2\% of the grave goods discovered.

Differences which are possibly related to social position may also be noted in the number of items recorded in individual graves. In the topographical distribution, graves with comparable quantities of grave goods reveal some clustering, leading to the identification of two specific groups of graves.\textsuperscript{287}

Social implications, finally, may also be inferred from features of the graves themselves, specifically corner pits and niches. Because of their rarity - respectively 12 and 19 graves of the 167 registered - one is tempted to assign them to members of the community with a certain social standing.\textsuperscript{288}

These observations apart, however, most attempts to distinguish patterns related to particular social groups or individuals have proved unrewarding. As remarked above, only two possible groups of graves have been distinguished on the basis of the quantitative distribution of grave goods. But while these may represent particular social groups, they might equally reflect specific customs current at particular times. The choice between these options, however, is hampered by our lack of specific dates for the individual graves. This, in turn, is related to the simple character of most of the vessels, which does not allow their assignment to specific chronological phases (see below). All this being said, we must still assume that some underlying pattern defined the layout of the necropolis.

Family groups and the lay-out of the necropolis
The chances of our being able to decipher the social identity of the dead in the Southwest Necropolis now seem remote. We are left with the impression of a rather simple community whose members have apparently been buried without clear internal distinction. This impression is underlined by the strong sense of uniformity present in all the burials, which suggests a predominantly egalitarian character for the community.

Apparently all members, regardless of age, gender and social position, had the right to be buried in this cemetery. In most cases they had graves of their own. This applied even the youngest members, for whom at least 13 graves dug to size have been recorded.\textsuperscript{289}

Against this background of communal uniformity and conservative taste, the question remains: how should the subtle differences between burials be interpreted? Although the evidence is meagre, some clues as to the chronological development of the necropolis may be discerned. At the same time, it may be argued that the guiding principle determining the layout of the graves is that of related groups of persons, probably members of small

\textsuperscript{286} See Gnade 1992a, 40, on the distribution of black-glazed vessels; \textit{ibidem} 38, on the quantitative distribution of vases.

\textsuperscript{287} A 'NE-group', consisting of 27 graves which either lack pottery or contain a single vase; and a group of graves situated immediately to the south, in the central-eastern section of the necropolis, comprising many graves which contain a comparatively high number of grave goods, Gnade 1992a, 38 and Figs. 28, 40, 45.

\textsuperscript{288} On the varieties of grave type and their distribution in the cemetery, see Gnade 1992a, 22-27 and Fig. 19.

\textsuperscript{289} See Gnade 1992a, 42-44, on child burials. Grave 109 was first identified as the grave of a child of about 15 years. A re-analysis of the skeletal remains has revised this to 18-20 years (see Rubini \textit{et al.} in the Appendix).

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family groups. Differences observed between the individual burials in the recognized groups may then be explained in terms of chronology. Equally, they could be interpreted as expressions of the social position of the groups within the community.

If we presume the principle of organization by descent groups, we find it most clearly reflected in the placement of the graves. These seem to be laid out - especially in the central and southern parts of the area - in various small units comprising three to five graves or pairs of graves. The graves are located either side by side or partially intersecting. Often (but not always) their orientation is similar. The different graves in each unit are most likely of consecutive date and probably reflect the successive generations of one family (see below). More obvious cases of the expression of family ties - though less distinct in their spatial arrangement - are provided by multiple burials consisting of two or even three bodies in one grave.

One also has to ask how the relatively high number of separate individual graves may relate to any presumed family-based organization of the necropolis. It may be significant that many of them, though by no means all, contain comparatively few grave goods or even apparently none. The most substantial group of such graves has been identified in the northeastern section.

Perhaps those buried in separate graves had no specific family ties. This would explain their solitary status and the often separate location of their graves. One could also argue that the material poverty of these burials, at least those in the northeastern part of the cemetery, should be explained in terms of chronology. The remarkably orderly and well-spaced placement of the graves in this section, which reveals a degree of alignment in straight rows, may suggest that this was the earliest section of the cemetery. Supporting evidence for this assumption is provided by the fact that the northeastern section is the highest part of the necropolis. From here there is a gradual slope down towards the south and southwest. It is likely that the higher ground would have been selected for the first burials. One could speculate that these were assigned to the first deceased members of a community new to Satricum. These were possibly single persons. It is interesting to note that children’s graves, which occur with some consistency in the more southerly sections, appear to be absent from the graves in the north.

At the same time, one might reasonably expect clear social differentiation (expressed in terms of the numbers of grave goods) to be absent from the graves of the earliest individuals, since for them economic resources must have been limited. This assumption is supported by the simple nature of the few grave goods found there. The most commonly recorded grave gift in this section (as in other separate graves which contain only one vessel) is a jar. These jars are either large and coarse or comparatively small and fine. This may imply a distinction, either in terms of gender or social-economic status. We will

On the organisation of some burials into small distinct units of intersecting graves or series of graves, see Gnade 1992a, 21-22, n. 26. The clearest examples of family units may be recognized in the two central eastern groups, respectively comprising five and four intersecting graves with identical orientations (6, 64, 111, 125, 126 and 120-122, 132). Similar arrangements may also be recognized in the smaller groups of intersecting burials, such as graves 14, 24, 31, graves 76, 77, 78, 92 and graves 80-81, 91; or in pairs of intersecting graves, like 123-124, 162a-162bc, 163-176. Small groups of adjacent graves with a corresponding orientation that appear to be spatially separated from the other graves may also be identified in the same way (for example, 115, 40, 41 and 50); likewise those graves set in pairs (such as graves 17 and 35, 37 and 38, 21/36, 19 and 20).

On the multiple burials, see Gnade 1992a, 34-35.

Gnade 1992a, 38, 40, 45.
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return to the issue of gender-defined vessels at a later stage.

It is probable that the earliest graves set the pattern which subsequent generations were expected to follow. Certainly, the full range of grave-types have been recorded in the northeastern section.

If we pursue our argument, we would expect successive phases of the necropolis to reflect aspects of a more developed community, one which had grown in size and acquired more economic substance. And indeed, some changes along these lines are observed. In contrast to the orderly arrangement of the graves in the northeastern section, the graves down the slope to the south are less widely spaced and more densely clustered. Many are set against each other and there are frequent intersections (see above).\(^{299}\) Several distinct plots can be picked out. This higher density may be tentatively linked to a growth in population. Child burials appear regularly in the central section and are often incorporated in grave units that may belong to individual families. The graves in this section also show an enrichment in their furnishings, both in the number of gifts and in the occurrence of grave goods that are commonly regarded as expensive items. The assortment of vessels has become substantially larger. One burial may contain more than one specimen of a particular vessel. Most of the imports found in the necropolis have been recorded in this section, notably three large Etruscan transport amphorae and the fragments of a Massilian amphora.\(^{294}\) In three instances the amphora is associated with a complex of several graves and probably acted as a grave marker. The rarity of the amphorae in the necropolis would certainly seem to indicate the special position of certain individuals within the particular group. This is especially visible in the last graves to be dug, which significantly held the largest numbers of grave goods to be recorded in the necropolis. Remarkably, these graves belonged to children (see below).\(^{295}\)

It appears that the centre of the necropolis was occupied by certain family groups that over time had built up a certain level of prosperity.\(^{296}\) This hypothesis is supported by the presence of a few empty or 'poor' graves amongst the more richly furnished examples.\(^{297}\) In some cases, these are incorporated in a small grave unit next to a very rich grave. These 'poor' graves may well constitute the first burials in the family line. In time, the space around them would then have been filled in, either with the graves of the same family group, partly dug into the original grave, or with the graves of neighbouring family groups. It is possible that several plots were in use at the same time. In the case of one particular family unit, comprising graves 62, 64, 111, 125, 126, it may be observed that the grave without gifts (111) is one of the earliest to have been dug, whereas the richest grave, child burial 62, is the latest (Fig. 19).\(^{298}\) A confirmation of the comparatively late date of the child's grave is provided by a black glazed kylix found among its grave goods, which can be dated to the last quarter of the fifth century or

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\(^{293}\) See n. 214 on the various distinguished groups.  
\(^{294}\) Etruscan amphorae have been found in graves 5, 35 en 64. Fragments of a Massilian amphora have been found scattered around grave 57.  
\(^{295}\) This refers to graves 35a, 58 and 62, which held as many as 18, 14 and 24 vases respectively.  
\(^{296}\) This probably also applies to the southern section. Similar small groups of partly overlapping graves have likewise been recorded here. They have not yet been excavated.  
\(^{297}\) For example graves 111 and 121, both of which are part of a presumed family unit.  
\(^{298}\) See comment on grave 64, Gnade 1992a, 228, for the stratigraphical sequence of these five intersecting graves.
possibly later.\textsuperscript{299} Incidentally, this grave is one of the latest datable graves in the necropolis. The whole plot, comprised of five graves which contain at least seven burials, provides a fine example of a family unit spanning the whole period in which the necropolis was in use.

An interesting fact, which may be related to the chronological sequence of individual burials, is the difference in depth of the graves. It has been noted throughout the cemetery that grave depths vary considerably, and that deep and shallow graves can occur next to each other, (as can 'rich' and 'poor' graves). At the time of publication no explanation could be offered for this phenomenon.\textsuperscript{300} In terms of the family group theory now being proposed, we could see the deepest graves as the first in the line of descent, to be regarded as the ancestor of the group. This suggestion would correspond remarkably well with our reconstruction of the early 'poor' graves and the late 'rich' graves. In the case of the grave plot 62, 64a/b, 111, 125 and 126a/b, grave 111 - which is the earliest and without grave goods - is also the deepest (Fig. 19).\textsuperscript{301} Grave 64b, the second deepest, contains only one vessel. This grave must also be regarded as special for a number of other reasons. Apart from its depth, it is the only grave of the group to be provided with corner pits and is moreover the largest of its kind (2.55 x 1.00 m).

Similar observations regarding a depth-related chronology for the graves can be made in the adjacent plot, which comprises graves 120a/b, 121, 122 and 132. The deepest grave 120b contains only one vase, whereas the shallower (and probably later) graves show comparatively richer furnishings.\textsuperscript{302} Such a reconstruction of course implies that the intention to establish a lineage group of burials was present at the time the first, deep grave was dug. The apparent improbability of such a notion is countered, however, by the occurrence of multiple-burials in one grave (see above), which are perhaps better defined as 'lineage tombs'.\textsuperscript{303}

It is further to be noted that the fill of grave 111 contained some 'old' Iron Age sherds that may be tentatively identified as belonging to an amphora of the Alfedena-type.\textsuperscript{304} Until recently this type of vessel was virtually unknown in the archaeological record of Satricum. As shown, however, similar fragments were brought to light in the upper layers of the Poggio dei Cavallari.\textsuperscript{305} There they were interpreted as the remains of a destroyed grave, being part of a layer containing predominantly secondary material. The presence of these fragments, together with some other Iron Age sherds in the fill of an otherwise empty grave, could be interpreted differently, however, thereby removing the problem that these graves are laid out in a sterile area with no traces of earlier occupation. We might here interpret the sherds as elements intentionally thrown into the fill as part of a ritual

\textsuperscript{299} Grave 62 is the richest grave that has been recorded in the necropolis. It contained at least 24 vessels, among which are various black-glazed items. See Stibbe 1992, 69-70 on the kylix; Gnade 1992a, 218-221, on grave 62.
\textsuperscript{300} See Gnade 1992a, 29.
\textsuperscript{301} See n. 297.
\textsuperscript{302} The fact that the less deep grave 121 did not contain gifts may be explained by the fact that the top layer of this grave and objects belonging to it may have been destroyed together with that of the adjacent grave 132, which still revealed some broken pottery finds.
\textsuperscript{303} Cf. Morris 1992, 174-199, for a comparable reconstruction of lineage tombs in the small necropolis of Vroulia on Rhodes; on the significance of grave size and depth, see \textit{ibidem}, 190-193. In contrast to the 'ancestors' in the Southwest Necropolis, the oldest graves in Vroulia were the richest ones.
\textsuperscript{304} See Gnade 1992a, grave 111, no. 1 and comment on p. 303.
\textsuperscript{305} For comparable finds in the Poggio dei Cavallari and for references with regard to the Alfedena-amphora, see above, n. 172.
establishing a link with the background of the deceased. A comparable early and alien intrusion, this time the upper half of an Iron Age impasto jar, has been recorded in grave 122. It has been suggested that this rather badly preserved vase - occurring as it does among much better preserved pottery - may have had a special significance to the dead person, perhaps as an heirloom.

Still assuming a kinship structure, we could interpret the rather disorderly distribution of graves in the southwestern section as the final phase of expansion in the necropolis. On the other hand, we must concede that the disorderly impression is mainly based on a large cluster of at least ten, partly intersecting, graves with rather varied orientations. This layout seems to diverge from the general pattern and the whole cluster may be related to a large family group.

The position of this cluster along the western periphery of the cemetery may also have a specific significance, although one which can only be guessed at. To the southwest of the cluster there are many isolated graves as well as several small groups of intersecting graves.

In general, the graves in the southwestern section are not richly furnished. The average number of gifts appears to diminish again, while empty graves or graves containing a single object seem to occur more often. Some evidence for the presumed chronological expansion of the necropolis in a southwesterly and/or southerly direction may be provided by the slightly higher concentration of late black-glazed items recovered in this section. However, it should be said that the basis of such evidence is thin, due to the general scarcity of black-glazed vessels in the necropolis.

The argument in favour of a layout based on individual family units set against the background of a chronological expansion of the necropolis as a whole, largely depends on the identification of small, intersecting grave groups. Unfortunately, neither the furnishings nor the shapes of the graves in question reveal enough distinctive or recurring features to confirm the proposed family relations. However, the choice to dig one grave partly overlapping another seems to have been intentional, at least where graves with similar orientations are concerned. Most separate graves are well spaced, which indicates an awareness of where to dig. The occurrence of several burials in one trench offers further strong support to the theory of kinship groups. Occasionally two members of one group may have died simultaneously, but it is highly unlikely that such situations occurred in all cases of multiple burial. The recurrence of child burials dug into or partly intersecting other (usually adult) burials, is further evidence in support of descent groups.

Indication of deliberate choice is also provided by the alignment of graves along two main orientations. As yet, the reason for this choice and the ritual underlying it remain unclear.

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306 See Gnade 1992a, 321-22, grave 122, no. 3, Fig. XXII, Pl. 8a.
307 See Gnade 1992a, 21 on the cluster of graves comprising graves 27, 29, 69, 74, 83, 96, 97, 104, 110, 112. Here it was also observed that the floor levels of the earliest graves - generally the north-south graves - were lower than those of the intersecting (and thus later) east-west graves.
308 Cf. the late, black-glazed miniature bowls (type 2, Steures 1992, 59) in graves 25 and 43; the St Valentine kantharos in grave 54 (end fifth cent.); the one-handler in grave 2; and the oinochoe (c. 425) in grave 7.
309 Cf. the necropolis of Osterià dell'Osa where the discerned family groups are each characterized by distinctive elements, such as a specific type of pottery decoration, a specific use of a particular type of vessel, or an exclusive type of grave gift, Bietti Sestieri 1992, 551-784; Bietti Sestieri/De Santis 1985, 36.
As far as the composition of the population buried in the necropolis is concerned, a number of further observations can be made. Some apply to the child burials, which, as will be shown, occupy a special position in the cemetery as a whole and in some of the burial groups in particular. Others relate to the gender of the buried persons and, thanks to the results obtained from a re-examination of the osteological remains, allow some new conclusions to be drawn.

Child burials
One of the most remarkable aspects of the Southwest Necropolis is the way in which children were treated. The general custom in Latium was to bury children adjacent to the hut or house within the settlement. They do not seem to have had the right to be buried in the communal cemetery. This practice, amongst others, distinguishes the Latial culture from its neighbours. The custom of burying children inside or nearby the house survived into later periods. In Satricum, for example, two sugrundaria were found inside the Roman villa in the Poggio dei Cavallari, along the northern edge of the former lower settlement area.

In the Southwest Necropolis, however, children were allowed a ritual similar to that given to adults. They were either incorporated into family plots as individual burials or buried in their own graves amongst those of the adults. Their graves seem to have been treated with equal care. Of the 189 burials recorded in 167 graves, about 35 have been recognized as child burials, based on the skeleton itself or on the size of the grave or on the grave outfit. This number makes up c. 18.5% of the burials, not a very high number when infant and child mortality must have been high (a mortality rate of 40 to 50% is considered normal). However, in the case of the Southwest Necropolis, the documented graves do not represent the entire community. We can even assume that there were twice as many burials. At least thirty more graves remain to be excavated, while the complete cemetery was undoubtedly much larger.

More child burials must therefore

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312 See Heldring 1985, 74-75; CatSatricum 1985, 173 no. 334.

313 See Gnade 1992a, 42-44, for the child burials. Fourteen had been identified via the skeletal remains (11 under the age of 10) and 19 on the basis of indirect evidence, such as the small dimensions of the grave or the character and size of the grave goods. Additional study of the skeletal remains has resulted in the identification of three more child burials in graves 115a, 148 and 160c (see Rubini et al. in this volume). In the cases of graves 115a and 148, children of 10-11 and 5-7 years have respectively been identified on the basis of extra dental elements found in the boxes containing the bone material (personal comment Rubini). The same burials were previously assigned to adults of about 25 years (respectively graves 115b and 148), see Hoogland 1992, 119. Grave 160 concerns a child of 5+/-6 months, lying in the upper layer of the fossa. Its existence was already presumed on the basis of the find of two small vases and the bulging outline of the grave. The re-examination of the bones also resulted in a slight correction of the age of the body in grave 109, from 15+/-3 years to 18-20. This removed it from the list of child burials. See Rubini et al. in the Appendix.

314 Cf. for instance La Genière 1990, 84-85, on the different opinions prevailing amongst demographers and anthropologists on the ratio of child mortality.

315 The southern and eastern limits of the cemetery have not been established. The graves in the lower southern section have not been excavated; more graves have been registered below to the east of the modern pig-shed that covers the eastern part of the necropolis.

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have been present. It is at the same time very probable that many child burials are no longer recognizable due to the poor soil conditions.\(^{316}\) In spite of the small number which have been preserved, the child burials that have been positively identified provide a sufficiently large sample to convey how children were buried in this particular community.

Many of the children buried in the Southwest Necropolis seem to have occupied a significant position in the community. This may be inferred, as we will see below, from the regular presence of miniature lead objects and from the often high number of vases present in their burials. As has been said, grave 62 with its 24 vessels constitutes the richest grave of the necropolis. Graves 35a and 58 are solid runners-up with 18 and 10 vases respectively.

It may be recalled that these particular graves were in family plots and were the last graves to be dug. The occupants therefore seem to represent the last members of their family lines. The striking display of wealth in the children’s graves may perhaps be explained in terms of growing competition between various family groups, possibly mirroring the social distinctions of daily life.\(^{317}\) It implies that prestige or rank was acquired through hereditary transmission rather than personal achievement.

The special attention given to children marks them as social persons, a phenomenon that finds parallels in this period only outside ancient Latium. Comparable examples of socially significant child burials are found not only in inland cemeteries such as those of Alfedena and Campovalano, but also in the southern region of Campania (the cemeteries of Pontecagnano)\(^{318}\) and in Etruria (the necropolis of Veii, for example).\(^{319}\) The best known child burials from Magna Graecia are those of the Lucifero necropolis of Locri Epizefiri.\(^{320}\)

The cemetery of Alfedena, in the central Apennines, may serve as the best parallel because of its more or less contemporary date. During the recent excavations conducted in this necropolis three distinct burial groups have been identified, all of which contain child burials in individual graves amongst those of the adults.\(^{321}\) The graves are generally made to size and contain small personal objects and vases, often of small dimensions. They sometimes yield a larger number of objects than the adult burials.\(^{322}\)

\(^{316}\) On the soil conditions in the Southwest Necropolis, see Duivenvoorden 1992, 435.

\(^{317}\) A similar process of growing differentiation between family groups has been noted, for example, in the necropolis of Osteria dell’Osa during the eight century, see Bietti Sestieri/De Santis 1985, 39.

\(^{318}\) For child burials in Pontecagnano, see D’Agostino in NSc 1968, 120, nos. 71-73.

\(^{319}\) The necropolis of Quattro Fontanili in Veii has revealed some child burials of elevated rank, cf. Bartolini 1993, 275: tomb OP 5 containing a cremation (NSc 1972, 299-302), fossa grave GG 13-14 with loculus and cist containing a male child of seven years (NSc 1965, 112-115), fossa grave HH 6-7 with loculus containing a male child of five years (NSc 1967, 252-258), fossa grave GG 14-115 with possible wooden coffin, containing a 15 year-old child, probably female (NSc 1965, 117).

\(^{320}\) For the analysis of sex and age classes in this necropolis, see Cerchiai 1982, 289-298; cf. also La Genière 1990, 85-86, on the burial of children in Southern Italy.

\(^{321}\) The necropolis of Alfedena covers the period from the late sixth to the fourth centuries. The necropolis, first published by Mariani in 1901, was more fully excavated between 1974-1979 under the direction of F. Paris Badoni and M. Ruggeri Giove. They published the results in 1980.

\(^{322}\) See Paris Badoni/ Ruggeri Giove 1980, xii (child burial in the first group), xxii (second group, with the notably rich child burial no. 71), xxix (third group, with the rich burial no. 103). Graves 71 and 103 were each assigned a special position within the groups, being located in the centre among burials with weapons and ripostigli. Some remarkably rich child burials were also recorded among the graves published by Mariani in 1901 (L. Mariani, Aufiden, MonAnt 10, 1901, 225-638), for instance, grave no. 393 (p. 602).
Of the 35 child burials identified in the Southwest Necropolis, ten contained miniature lead weapons marking the deceased as male. Remarkably, all these burials lay over an adult grave, in four cases that of a male and in one case, a female.

As to the significance of the lead miniatures, we can only guess. Without doubt, they had a symbolic meaning. They were specially made as burial gifts, probably as substitutes for real objects, and immediately recall the early Iron Age cremations of Latium where weaponry is usually miniaturized. There the weapons have been interpreted as symbolic substitutes for use in the hereafter. However, the Latial custom of miniaturization is part of a wider phenomenon that is mainly connected with adults. The miniaturization often extends to the house of the deceased and sometimes even to his person. The miniature weapons in the Southwest Necropolis, on the other hand, seems to be exclusive to the youngest members of the community, implying a different symbolic significance. They may of course be explained as symbolic references to the warrior status of the family, or to the 'future' role imputed to the deceased. But apart from this gender-based significance, the objects must have held a wider symbolic meaning, one associated with authority and power. Most significant in this respect is the presence of axes, in one case even a double-axe. As such, the axe is part of a communal ideology encountered in the Phoenician and Hellenic worlds as well as in the Etrusco-Italic region. Examples of the axe as a symbol of authority are numerous, both in religious and in political contexts. A good example from the Central-Italic indigenous world is provided by the monumental Guerriero di Capestrano, who holds a small axe in his right hand. Miniature axes are known from various other inland sites. A miniature bronze axe and two miniature lance heads have been found in the sanctuary of Hercules in Campochiaro. Another miniature bronze axe-head is recorded in the votive deposit of Carsoli. Several iron axe-heads have been recorded in the necropolis of Alfedena.

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323 The graves with miniature lead objects are: 17a, 52a, 58, 70, 94a, 103a, 120a, 124, 143a, 167a. Grave 178 may be added to this list. It contained a small fragment of lead, possibly belonging to a miniature pike.

324 Grave 17a is lying on top of a grave containing an iron pike; graves 58 and 70 both intersect with graves containing an olla forata that have been identified as a male object (see below); grave 124 intersects with grave 123, of which the skeletal remains have been identified as male; grave 167a lies on top of 167b and 167c, both of which contained female skeletons (see Rubini et al., Appendix).

325 See Colonna 1974, 288-92, on the custom of miniaturization in the early Iron Age in Latium; Bietti Sestieri 1992, 45, for the significance of the miniature weapons in the necropolis of Osteria dell'Osa. Weapons are considered as indicators of the social role of the deceased. As a precaution for the living, they have been substituted by miniature reproductions.

326 On miniature hut-urns, see Bartoloni et al. 1987; on miniature human figurines, see Damgaard Andersen 1993, 7-56.

327 With the possible exception of the miniature lead axe-head found in grave 94a (see below). It was found in the disturbed fill, but high up and to the side of a very long grave (2.70 m).

328 Cf. Cerchiai 1982, 293, for the significance of miniature objects in the burials of young girls in the necropolis of Locri Epizeferi. It has been suggested that some of the miniatures may be regarded as items expressing the 'future' role of the child.

329 Graves 17a, 52a, 94a, 124, 143a held single axe-heads; grave 167a contained a double-axe; on the miniature axes in the Southwest Necropolis, see Meering 1992, 109-110.

330 For the diffusion of the 'custom of the axe' and its significance, see Chiaramonte Treré, in CatGrande Roma 1986, 182, with references.

331 Chiaramonte Treré, in CatGrande Roma 1986, 182, with references.

332 Gianfarani 1976, pl. 85.

333 CatSannio 1980, 208, nos. 5a-c, fig. 68.5a, (resp. sizes: 0.084 (axe), 0.077 and 0.059 (lances), with (mistaken) reference to the necropolis of Novilara, where bronze axe-heads of a larger size (0.10-0.15) have been found in five warrior tombs, see Brizio 1895, coll. 240-242.

334 Personal communication M.T. Onorati.

335 See Mariani 1901, 367 and fig. 83 (0.15 in length).
The connotation of authority presumed to adhere to the axe is strongly supported by the inscription on the specimen found in grave 94a (Fig. 23). This inscription has recently been interpreted by Colonna. It identifies the original owner of the axe as an aedilis, who without doubt should be seen as a person of high social rank with power to command. On account of the large size of the grave that contained the axe-head (2.70 m), the object has recently been attributed to an adult, quite in accordance with the function of aedilis. Its position in the upper fill of the grave, however, is in line with the pattern of miniature lead objects associated with child burials which are dug into the graves of adults.

The consistent use of lead in the miniatures from the Southwest Necropolis is another aspect that distinguishes them from the miniaturization recorded in other burial contexts. In most other graves, miniatures are in bronze. In the case of graves in the Southwest Necropolis, a direct reference to the hereafter may have been expressed in the chthonic properties generally ascribed to the metal.

Apart from miniature lead weapons, child burials can also contain miniature vessels or vases of a comparatively small size. Such vessels have been recorded in 19 child burials, five of which also contained a miniature lead weapon. The other five graves with lead objects contain either normal objects or no other items at all. The significance of these differences in outfit is unclear. We do not know, for example, whether the child burials without lead weapons are those of young girls or whether they may still be attributed to boys. Lead objects may occur in both richly and poorly furnished graves, while child burials with a rich outfit may lack lead weapons (as is best illustrated by grave 62, which contains the largest number of vessels). The question of whether age differences are implied by the presence of miniatures alone, or of miniatures in combination with normally sized vases, cannot be resolved. In the 17 cases that an age has been established, all kinds of combinations occur. It may be noted, however, that the range of miniature or small vessels found in the child burials is larger than in the adult burials. The vessels comprise jugs, bowls, jars and kantharoi, whereas the miniatures in adult graves consist predominantly of small jugs implying a different ritual significance (see below on the character of the grave goods). One might therefore assume that the miniature vases in the child burials were intended as actual substitutes for normally sized objects and were given for use in the hereafter.

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338 See below, for the discussion of the interpretation of the inscription and for the attribution of the axe-head.
339 Lead miniature weapons were probably also present in the graves on the acropolis, as may be deduced from the sporadic find of a miniature lead axe in 1990 (V 2702, not published). The piece has been consigned to the Groningen excavation team dealing with the graves on the hill.
340 See Meering 1992, 111-12, on the magical connotations of lead.
341 See Gnade 1992a, 41 and n. 76; 43 and n. 89, for the child burials containing miniature objects. Fourteen such burials were initially identified. The list of graves with only miniature objects has since been extended by four, following the reassignment of objects to particular burials. These are grave 160b, the newly identified child grave 160c, grave 162b and possibly grave 167a; graves 119 and 178 have been added to the list of child burials containing both miniature and normal objects. Grave 109 must now be removed from the list because the age of the deceased has been corrected (see Rubini et al., Appendix). This leaves a total of 19.
342 This applies to burials 52a (kylix, plain jar, handled jar), 70 (2 bowls), 94a, 103a, 124. It is possible, however, that the normal-sized vessels belong to a deeper grave into which the child burial had been dug.

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Gender

Initially, few results were obtained which could lead to the identification of the sex of the individuals buried in the Southwest Necropolis. Little help was offered by the skeletal remains. In general, these appeared to have been poorly preserved and early analysis of the remains established the sex of only three individuals.\(^{343}\)

Likewise, the outfits of the graves offered few clues to a differentiation between males and females. Nor could any patterns be discerned in the distribution of grave shapes which might have been linked to gender and age. Only in a very small number of cases (and with varying degrees of certainty) could the sex of individual members of the community be identified on the basis of particular attributes present in the grave.\(^{344}\) Typical gender-objects, such as a weapon or a spindle-whorl, were present in only 19 graves, a rather low figure given the total number of graves.\(^{345}\) The miniature lead weapons, while more exceptional, were also identified as gender-objects (see above).

In the few cases where a specific gender could be clearly recognized from the presence of a particular attribute, the observation could not be corroborated by the osteological remains themselves.

Recently, however, the osteological remains have been re-examined using more advanced methods. This has led to the revision of earlier conclusions. As well as a slight correction of the average age and an extension of the sample by ten cases, the gender of 43 individuals could be defined, nine with a high degree of certainty.\(^{346}\)

With the help of the new data it is now possible to make a connection between the observed sex of some individuals and a specific vessel-type that occurs in many grave furnishings. This vessel is the olla forata (a jar with pierced lip) which belongs to a category of grave gift typical to the Southwest Necropolis (Fig. 21).\(^{347}\) Forty-nine pieces have been recovered, distributed between 43 graves. My own suggestion, based on the identification of the skeletal remains and/or associations with typical male attributes in the furnishings, is that this type of vessel is linked to male individuals in the Southwest Necropolis. In six instances the jars were found in burials that were identified as possibly male via analysis of the skeleton. In ten other graves the jar was part of an outfit containing a typical male attribute, either an iron weapon or a lead substitute. So far, only one female (?) burial contained an olla forata.\(^{348}\) Other objects, notably vessels associated with wine consumption, appear next to the jars with some regularity and may confirm their male connotation.

The olla forata is a shape which so far has no parallels outside Satricum, despite

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\(^{343}\) Hoogland 1992, 117-123. The remains of 94 skeletons were studied. In 67 instances the age of the individual at the time of death could be approximated, but only in three cases was it possible to establish the gender.

\(^{344}\) Gnade 1992a, 41-42.

\(^{345}\) Iron weapons (comprising lanceheads, spear heads, one butt and one knife) were present in 16 graves. Three graves contained a spindle whorl or a loom weight.

\(^{346}\) Rubini et al., Appendix.

\(^{347}\) Steures 1992, 63-68.

\(^{348}\) This was grave 19, where the identification of the deceased as female is uncertain.
occasional references to similar items from other sites. The shape in some ways recalls that of the kernos-jar, of which two specimens have been recorded in Votive Deposit II at Satricum. This jar is made of a similar depurated ware. The shoulder carries two opposing spouts which run into surmounting shallow bowls. The rim of the jar itself is pierced by four perforations placed cross-wise. Exact parallels for this kind of jar are likewise unknown. The device of applying surmounting bowls to large containers is widespread in the Central-Adriatic regions, where it is associated with wine. Unlike many of these items, however, the bowls of the Satricum specimens are connected to the main body via the spouts on the shoulder. In spite of this difference, the association of the kernos-jar with wine is not to be excluded. The jars with perforated lip from the Southwest Necropolis may also be connected with wine or with its preparation, although another function for them has been proposed. In order to explain the holes in the lip, it has been suggested that these acted as ventilation holes during the fermentation of kefir. For a number of reasons, other alcoholic drinks were ruled out. In my view, however, it is still worth considering the jar as a fermentation vessel used in the preparation of wine. Certainly, there is some correlation to be observed between the olla forata and the consumption of wine. In more than half the instances where such a jar was found, other (drinking and pouring) vessels generally associated with wine were also present, either of normal size or in miniature form. In 18 cases a drinking vessel was involved, either a locally made kantharos (11) or a black-glazed cup (7). In the exceptionally rich grave 62, specimens of both vessel-types were present. In 15 cases (11 of which also involved a drinking vessel) there was a miniature jug.

To date, the olla forata and its regular association with particular vessels is the only example in the necropolis of a pattern, either in the contextual sense or in the association of a vase with a particular gender.

If we choose to consider the olla forata as a grave gift confined to male burials, the total number of males buried in the necropolis rises significantly. The effect is to tilt the general balance between the sexes strongly towards the males. It could of course be argued that many of the remaining graves must have belonged to women, which would go some way towards restoring the balance. However, male burials do seem to be in the majority. This can be inferred from the bones themselves, which also indicate a slight predominance of males. Further evidence may be derived from a similar (though less marked) imbalance in the ratio between the most common gender attributes, the weapons and the spinning and weaving items. The latter were present in only three graves, compared with 15 containing an iron weapon and 10 with a lead substitute. That is a ratio

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349 Bouma 1996, I, 373, n. 625 with parallels from Crustumerium, Antemnae and Artena. These specimens, however, do not convince because they are rims of plain jars. The only vessel that in some way recalls the olla forata comes from the late seventh-century grave no. 153 in the necropolis of Laurentina, cf. Bedini, in CatGrande Roma 1990, 256, no. 10.3.3. It is an ovoid jar with a rim perforated by four holes, made of depurated clay with a grey core and a reddish slip on the outside. On the whole, however, the vase shows very little similarity with the vessels from the Southwest Necropolis.


351 Compare an impasto jar from Caporciano, published in Catalogo del Museo archeologico di Campoli (a cura di Vincenzo d’Ercole e Walter Pellegrini) 1987, 29, fig. 1.

352 On the suggested function of the jar with holes in the lip, see Steures 1992, 63-66; idem 1993.

353 An olla forata was found together with a kantharos in graves 13, 29, 40, 42, 59, 62, 99, 122, 142, 145, 161; together with a black-glazed cup in graves 62, 64b, 86, 143c, 153, 168, 169.

354 An olla forata was found together with a pouring vessel in graves 19, 40, 42, 59, 62, 63, 76, 120a, 122, 142, 143c, 145, 153, 161, 169.
of 1:8. If we apply the same ratio to the other 161 burials which lack typical gender objects, we arrive at a rough estimate of the males represented in the excavated graves, i.e. 165.

These observations regarding the perforated jar are, of course, somewhat speculative and cannot be proven. However, the jar is undoubtedly one of the most characteristic items in the necropolis, and one which is found in comparative high numbers. As such the vessel probably possessed a special meaning, which in turn makes it a useful marker in our attempts to decode possible underlying patterns in the Southwest Necropolis.

As far as female burials are concerned, the newly obtained data from the skeletal remains also allow for some additional observations, albeit of a more general nature. For example, it appears that the graves of females were generally less richly furnished than those of males. Most are either empty or contain no more than two or three vases.

The military aspect

One factor that unmistakably points to the male gender is the presence of weapons. As has been said, the Southwest Necropolis has yielded remarkably few weapons. Iron weapons have been recorded in only 15 graves, or c. 8% of the 189 excavated burials (nine lanceheads, three spearheads, possibly a spear-butt (sauroter) and one or two pikes);\(^{355}\) miniature lead weapons were found in ten graves which have been assigned to children.\(^{356}\) The presence of weapons, however few, indicates that the community was acquainted with military activity and probably participated in warfare. It has been suggested, by way of explaining their small numbers, that weapons were too precious to bury in graves (although exceptions could clearly be made).\(^{357}\) On the other hand, given the extremely poor state of preservation of the weapons recovered, we might suppose that more burials may have held weapons which have not survived.\(^{358}\)

Weaponry in graves is a well-known phenomenon in Iron Age Latium. Bronze weapons in miniature are present in ninth-century cremation burials, substituting for real weapons. In eighth-century inhumation burials they have been replaced by full-sized weapons. An increase in warrior equipment is then observed, culminating in the rich warrior and chariot burials of the late eighth and early seventh centuries. Similarly, the bronze weapons of the early Iron Age seem to have been replaced by iron weapons during the eighth century (period III).\(^{359}\) Their reappearance, often combined with iron weaponry, is regarded as a sign of status.\(^{360}\) Weapons then seem to disappear from the burial record in the course of the third quarter of the seventh century. The latest grave in the Iron Age necropolis of Satricum with iron weapons is grave V, with a closing date of 650/640.\(^{361}\) Their absence

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\(^{355}\) On the iron weapons in the Southwest Necropolis see, Van Berkel 1992, 99-102.


\(^{358}\) This suggestion has been rejected by Bouma 1992, I, 192, but during excavation we often experienced how disintegrated iron objects could vanish on the spot, leaving only a 'rusty shade' in the fill of the grave, cf. grave 103b.7, Gnade 1992a, 288.

\(^{359}\) See Bedini/Cordano 1980, 103.

\(^{360}\) Cf. Bartoloni/Cataldi Dini 1980, 134 no. 51/a-c; cf. also, Bartoloni et al. 1982, 263-64; Waarsenburg 1995a, 102, n. 432.

\(^{361}\) For Tomb V in the Northwest Necropolis, see Waarsenburg 1995a, 91-95.
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has been explained by the suggestion that they had now become hereditary objects, transmitted to descendants.362

The general significance of weaponry in graves in ancient Latium seems to be primarily related to the social rank of the deceased, either in symbolizing warrior status during the early Iron Age or in marking the deceased as a member of the social élite in the succeeding Orientalizing period. The shift in the symbolic significance of weapons - that is, from weapons referring to warfare, to weapons referring to status (independent of gender) - takes place in the second half of the eighth century. This is demonstrated by the multiple presence of bronze shields in single warrior burials; or (in the seventh century) by the presence of shields in rich female burials, sometimes even in combination with a chariot.363 This change has been explained in terms of a decreasing interest in marking the deceased as a warrior.364

With regard to the weapons in the Southwest Necropolis, it is difficult to establish their exact significance. Do they refer to the actual warrior role of the deceased, or are they to be regarded as symbols implying a high social status? Little help is offered by the rest of the burial evidence. It has been claimed that the weapons recovered were concentrated in a particular area of the necropolis,365 but in view of their presence in graves 88, 89 and 166 and 182, all situated along the outer limits of the excavated burial ground, their distribution would appear to be far wider. In contrast to burials from the Orientalizing period, those which contain weapons in the Southwest Necropolis are not otherwise distinctive in any particular way, either in their furnishing or in the shape of the graves.366 It may be significant, however, that the iron weapons seem to occur predominantly in graves that are attributed to older members of the community.367 In four cases the deceased was older than 33 and in the two other cases the age was between 25 and 30. No weapons were recovered in graves assigned to subadults or adults between 12 and 25.368 Weapons appear again in the burials of the youngest members, but now as lead miniatures.

Given these patterns, it seems reasonable to interpret the presence of weapons in only a limited number of graves, with a single piece per grave,369 as a particular mark of honour. The weapon was undoubtedly related to the former military function of the deceased but it seems also to have had a more specific meaning, perhaps to emphasize or

363 See Bartoloni et al. 1982, 263-264, with references to Castel di Decima, Praeneste, Laurentina and Veii; see also Bartoloni 1993, 274-276.
364 D'Agostino 1990, 71. For a different interpretation of the changing symbolic significance of weaponry in graves see, recently, Riva 1999, 331-335. In Riva's view, the figure of the warrior persists, but is now perceived via a cultural identity-based notion of status rather than from the gender-based notion of status that prevailed in the period before.
366 The number of other grave goods generally ranges from one to three vessels. Graves 142 (eight vases), 145 (seven vases) and grave 182 (seven vases) form the exceptions.
367 The age of the individuals buried with an iron weapon could be established in six cases.
368 A similar correlation between weapons and a certain age group has been noted in the necropolis of Alfedena. In the third burial group the graves containing weapons belonged to the older men. The graves of individuals of 17-25 years of age did not hold weapons, see Parisé Badoni/Ruggeri Giove 1980, xxix.
369 The only exception is grave 37/38, which contained three weapons, one for each individual grave and one that was probably meant for both.
symbolize his personal achievements as a warrior. These would no doubt have been greater after several years of military activity. The total absence of weapons in the graves of young men (the most likely group of active warriors) and the presence of single items adds support to this reading of the weapons as having honorific significance. A single weapon can hardly be considered the real equipment of a warrior. The strength of the military strand in the community's culture is most obvious from the miniature weapons found in child burials.

**Character of the grave gifts**

This discussion of the meaning of particular burial gifts leads directly into the problem of the correct interpretation of the other gifts. Are they to be regarded as objects of daily use or as funerary gifts that were especially made for the occasion? Thanks to recent discoveries made in Satricum, we now have the chance to make comparisons between finds from contexts with very different characters. Not only do we have the burial context of the Southwest Necropolis. We also have the objects found in the apparently sacral context of Votive Deposit II on the acropolis. On the other hand we have finds from an unmistakably domestic context, collected from the household debris in the dump stratum of the Poggio dei Cavallari.

In general, a close similarity can be observed in the type, shape and fabric of the vessels found in the three contexts. All contain pots from the same functional classes - eating, drinking, pouring and storage. All display a prevalence of the more simple shapes, such as bowls and jars, with an obvious dominance of plain varieties. But there are also some notable differences that may be related to the specific nature of the contexts.

Shapes that are particularly found in the Southwest Necropolis and may be therefore assigned a specific funerary character are the coarseware jars with bosses on the shoulder (olla bugnata), the small two-handled jars of light depurated clay (stamnos), the jars with perforated rim (olla forata) and the kantharoi with double-reeded handles of imitation buccherico. These particular vessels have few parallels elsewhere in Satricum. The small, two-handled jar may even be unique to the Southwest Necropolis.

Vessels that are notably absent in the graves but which constitute regular items both in Votive Deposit II and in the dump in the Poggio dei Cavallari are the large storage jar, the different types of large basins, the lid and the lid-bowl.

The assumption here is that the deceased was given a small meal or some provison for his

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370 Bouma, jar type IV and bowl type III for Votive Deposit II; Steures jar types 2-5 and bowl types 2-5 for the Southwest Necropolis.

371 Cf. Bouma 1996, I, 299-302, discussing the differences and similarities between the artifacts in the Southwest Necropolis and those in Votive Deposit II.

372 The *olla forata* is clearly under-represented in the deposit (with 17 fragments of pierced rims and 13 fragments of bottoms or other parts attributed to the jar) and is represented by only a few fragments in the dump. Similarly, only a few specimens of the buccherico kantharoi with double-reeded handles are known from the deposit, while the dump stratum in the Poggio dei Cavallari has yielded only fragments. Of the large jar with bosses, fragments have been recorded sporadically in both the dump stratum and the deposit; the vessel occurs in miniature in the deposit. See Bouma I, 1996, 372-73, on the *olla forata* in the deposit; 348-351, on the jar with bosses (decorated jar); 380-382, on the kantharoi with double-reeded handles.
journey. This may be inferred from, amongst other things, the primarily domestic character of the pottery, which presents the most basic shapes. The plain jars (presumably cooking vessels) and some of the other shapes, often show greasy black traces on the inside and sometimes yielded carbonized remains of the original organic content. Unfortunately, these contents could not be analysed. The only exception concerned the small stamnos from the burial of the girl in the Poggio dei Cavallari which was discussed earlier. Here part of the carbonized contents could be identified as coming from a hazel tree. The wood may have belonged to a ladle.

Traces of use, such as the secondary burning observed on the cooking pots, may indicate a former utilitarian function in daily life. On the other hand, they could be the result of a meal cooked at the grave. Neither option can be proven. It should be noted, however, that the other shapes do not show obvious traces of use. The most notable characteristic of the jar with perforated rim (olla forata) and of the jar with handles is their soft, powdery fabric. This would certainly have revealed traces of former use, unless an original surface has completely disappeared. The absence of wear on these delicate surfaces suggests that they have never been used in daily life. It also supports the assumption of the primarily funerary character of both jars.

The absence of larger vessels (like the large storage jars and the large basins) from the graves, seems to be in line with a funerary ritual characterised by a preference for smaller vessels. The deceased is often provided with rather small pots. These may have contained only a small portion of food and drink, just enough to bridge the period of passing from one world to the other. The jar with bosses and the small two-handled jars can then be interpreted as substitutes for the larger vessels of comparable shape (the storage jars with and without handles) which are known from the daily repertoire. The possible function of the jar with perforated rim as a substitute for the kernos-jar (equally absent in the necropolis) has already been discussed.

In general, both the deposit and the dump stratum in the Poggio dei Cavallari have yielded a much broader range of type-varieties of certain shapes, among which the more common shapes of jars and bowls prevail. The absence of some of these vessel-types in the Southwest Necropolis, such as the high-rimmed jar and the jar with encircling cord decoration, is explained by their relatively late appearance in the pottery repertoire of Latium. They only seem to occur after the final date of the necropolis. The absence of others might be due to reasons of ritual.

The miniaturization of some of the grave gifts suggests that part at least of the grave outfit was especially made for the occasion. The clearest examples are, of course, the miniature weapons we have discussed earlier. But the miniature vases may also be ascribed to the funerary category.

The occurrence of miniature vases in Latium is generally related to the votive sphere.

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373 See Gnade 1992a, 40-41 and n. 75 for the small jars with possible organic remains.
374 The wood was analyzed by P. van Rijn of the BIAX (Onderzoeks- en Adviesbureau voor Biologische Archeologie en Landschapsreconstructie) in Amsterdam.
375 On the high-rimmed jar in Votive Deposit II, (type 45 Bouma), see Bouma 1996, I, 368-369; on the jar with encircling cord decoration, Bouma, type III, idem, 348-351. In the Poggio dei Cavallari, the high-rimmed jar is exclusive to the top stratum; the jar with encircling cord seems to occur earlier, but becomes more frequent in the upper layers.
few examples from graves are known, but these are rather exceptional. The miniature objects in the child burials have already been discussed. It is to be noted, however, that miniature vases are recorded in the burial outfits of adults (33) more often than in those of children (14). These consist predominantly of small jugs, which probably had a specific symbolic function, perhaps associated with libation.

Summing up, it seems reasonable to conclude that the gifts in the graves of the Southwest Necropolis are more ritually defined than they appear at first sight. Behind their mundane appearance, the objects seem to have held a deeper significance that can only occasionally be glimpsed. The most obvious cases, of course, are those of the miniaturized objects. The symbolic significance of the iron weapons has also been discussed, but unfortunately we remain in the dark about that of the vessels. One plausible interpretation is to see them as imitations of full-sized versions belonging to the daily repertoire.

Observations on the chronology of the necropolis
The Southwest Necropolis was in use for almost the entire fifth century. This period can be approximated on the basis of the few datable items found in the graves. Due to the fact that the majority of grave gifts belong to the category of ordinary ware, no exact initial or final date can be established for the necropolis. Nevertheless, provisional dates have been proposed. These are: for the initial date, 488 (which accords with the presumed presence of the Volscians in Satricum); and for the final date, 420 (which is based on the date of the majority of the datable vessels). The latter seems to me suspect, since some comparative late black-glazed items were left out of consideration. Their presence suggests, in my view, that the final date of the necropolis could be safely lowered to c. 400 or even beyond. The initial date (488) is retained since no new archaeological data seems to have come to hand.

Since the discovery of the necropolis, a steady flow of new pottery finds dating to the fifth and fourth centuries has extended the Satricum pottery repertoire. Unfortunately, most of the new vessels belong to the category of locally manufactured ordinary ware, making the task of assigning particular vessel-types to precise chronological phases all the more difficult. Earlier attempts to establish a relative chronology for the ordinary vessels in the

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376 Apart from the miniatures in the early Iron Age graves, where miniaturization is commonly encountered as an integral element of the ritual, miniature vases have been recorded only sporadically in graves, cf. Cataldi Dini 1977, 324, tomb 20 in the necropolis of Ficana, containing a miniature jug and a miniature biconical vase. Cf. also Bedini 1980, 62, for graves with miniatures in the necropolis of Acqua Acetosa-Laurentina; idem, in CatGrande Roma 1990, 256-257, grave Hg 47 with a miniature jug and a miniature jar (probably a child burial) and chamber burials 1 and 2, each containing a miniature jar.

377 For an enumeration of the graves containing miniature objects, see Gnade 1992a, 41, nn. 76-77.


379 See for instance, the black-glazed miniature bowl, type 2 of Steures, for which there are comparatively late parallels dated well into the fourth century, see Steures 1992, 59, n. 33. This particular shape has been recorded in three graves in the Southwest Necropolis (graves 8, 25 and 43). Cf. also two St Valentine kantharoi, present respectively in grave 7 and grave 54 (end fifth cent.); a black-glazed stemless cup in grave 62 (425-400); two one-handlers dated to 450-400 (graves 2 and 8). Cf. also Bouma 1996, I, 308, n. 21. I have some serious doubts about the late dates he proposes for some of the ordinary vessels, since they are based on the internal stratigraphy of Votive Deposit II (see above, for the discussion of this issue).
Southwest Necropolis proved unsuccessful, in spite of the presence of some reliably dated imported pots and of local imitations of datable prototypes from Greece and Southern Italy.\textsuperscript{381} No significant relationship between any two types of ordinary ware could be established and thus no relationship between recognized types of vessels and their distribution in the necropolis. Considering the short span of time represented by the necropolis, the absolute time range of each datable pot was seen as too wide to be useful. Consequently, the chances of establishing formal developments within the distinct classes of this poor material were regarded as very slim.\textsuperscript{382}

In reaction to this view, it has recently been suggested that the main obstacle to establishing a relative chronology for the ordinary ware may have been an incorrect typology.\textsuperscript{383} Vessels revealing a close morphological relationship with those from the necropolis have been recorded in the partly contemporary Votive Deposit II on the acropolis. The presumed chronological distinction between the separate layers on the one hand and the separate depositions in each layer on the other, was seen as the key to setting up a typo-chronology for the simple pottery.\textsuperscript{384} However, the absence of reliably dated imports to provide a basis for a more fixed chronology is even more marked in the votive context than in the necropolis. This applies especially to the earliest strata of the deposit. Moreover, the dates of parallels from other sites have been regarded as too general to be of any help.\textsuperscript{385}

We have already discussed the stratigraphy of Votive Deposit II and its chronological value for individual vessels. In order to underline the non-value of the typo-chronology that has emerged from the meticulous study of the pottery, it may be useful to test it on the Southwest Necropolis.

In my view, it is doubtful whether the typo-chronology for the deposit pottery would help in any way towards making a clearer chronological distinction between the individual graves in the necropolis, or indeed in any other context. The results present a complex system of main types, subtypes, varieties and ware groups of which the usefulness must be fundamentally questioned. For the jars alone, seven main types have been discerned of which type III - the decorated jar - is divided into seven type-varieties and type IV - the most common plain jar - into 53! The bowls are sub-divided into 11 main types.\textsuperscript{386}

Of direct interest to the Southwest Necropolis are the plain jar varieties. This kind of jar, with 70 specimens, is the second most common vessel-type occurring in the necropolis. In Votive Deposit II it is the most common. Of the 53 type-varieties discerned in the deposit, 23 have been recognized in the necropolis. In only 10 cases are these 'late' jars, \textit{i.e.} jars that only occur in Votive Deposit II from 450 onwards.\textsuperscript{387} All the other parallels are pieces that occur from the earliest votive layer through to the final period of use, \textit{i.e.} from the early fifth century until the end of the third century. Obviously, these jars are of no chronological help for the graves in the necropolis. The same holds for the remaining specimens, which occur comparatively late in the deposit. Were these to occur in a grave

\textsuperscript{381} Steures/Stibbe in Gnade 1992a, 49-51.
\textsuperscript{382} Gnade 1992a, 17.
\textsuperscript{384} See Bouma 1996, I, 307-309.
\textsuperscript{385} See Bouma, 1996, I, 308 and n. 19.
\textsuperscript{386} Bouma 1996, I, 334-345 (on the bowls); 346-375 (on the jars).
\textsuperscript{387} This regards type-varieties IV/14-15, 20, 22, 27-28, 40-41, 52. On the type-varieties of the plain jar that reoccur in the necropolis, see Bouma 1996, I, 347, n. 304.
which, through its position, could confirm a date, they might have been useful for our purposes. Unfortunately, this is not the case.

The most convincing argument against the usefulness of the jar classifications for dating particular graves is provided by the grave contexts themselves, either via well-dated objects in the same burials or by the presence of differently dated jars. Grave 35a, for example, which contains an owl-skyphos and a kylix that are both dated to the second quarter of the fifth century, also contains a comparatively early jar-variety side by side with a comparatively later jar-variety. Another example is grave 171, which likewise contains two jar-varieties dated to different periods.

Similar observations can be made regarding the typo-chronology of the bowls. The common bowl-type III, which has most parallels in the necropolis, is found in all layers of the votive deposit.

In view of the above, we may conclude that the more common shapes of domestic ware, the plain jar and the bowl, are of no help to us in dating individual graves.

**Satrican society during the fifth century**

Analysis of the Southwest Necropolis has thus far produced an impression of rather a simple community characterised by a modest standard of living. However, the burial record bears indirect witness to other social factors which may throw a different light on the status of the dead and at the same time tell us more about Satrican society in the fifth century.

One of these factors is the obvious degree of organization that emerges from the burial record. The first and clearest sign of organization is the regular layout of the cemetery along two main orientations, a phenomenon for which there is still no acceptable explanation. Secondly, there is the observed organizing principle based on family groups, which seems to have been anticipated by the organized arrangement of the first (separate) graves in more or less straight rows. Thirdly, there is the continuation of the same burial ritual throughout the whole period the necropolis was in use. The same consistency is visible in the care bestowed on each separate disposal. As such, the burial record seems to reflect a significant level of organization within the community.

Direct evidence for a well-organized, and even politically structured, community is provided by the find of the lead axe-head with inscription (see above; Fig. 23). The inscription has been identified as an onomastic formula (in the dative) of dedication or (even more likely) of possession, revealing a personal name - *Iukos Comius or Cominius* - with the magistratal title of *aedilis*. If this interpretation is correct, it would be the

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388 This regards owl-skyphos 35a.4 (480-450) and kylix 35a.20 (475-450). These datable objects are associated with jar-variety IV/26 (35a.6), which occurs in the deposit from the earliest votive stratum 3 through to stratum 10, and jar-variety IV/40 (35a.8), which occurs from strata 5 through to 10.

389 In grave 171, jar-variety IV/15 (171.6) present in the deposit from stratum 8 (dated 440/430 - c. 375), occurs side by side with jar-variety IV/7 (171.2), present from stratum 3 onwards. Cf. also the jars in graves 52 and 58 (52a.2 and 58.4) that occur in the deposit in layers dated to 450-440 and 440/430-c. 375, respectively (types IV/28 and IV/14). Both graves, however, contain kylikes dated to 470-450 (52a.1 and 58.6).

390 Bouma 1996, 1, 334-345, on the typo-chronology of the bowls.

391 Gnade 1992a, 274-76 (tomb 94a-b).

392 Colonna 1995, 3-20; see Colonna 1984a, 104-106 for the first publication of the inscription, without an interpretation of the text; *idem* 1992, 125-128.
first written evidence of this title, which was officially introduced in Rome in 494.\textsuperscript{393} Apart from its importance as an epigraphical document, and its possible ethnic connotation (see below), the inscription implies that the deceased to whom the axe-head was donated - as well as the donor himself - was able to read.\textsuperscript{394} This is surely quite surprising in a simple community. But the inscription implies more, namely that the community was acquainted with official functions inherent to an urban organization. The urban aspect of the settlement of Satricum during the fifth century has been suggested by the reconstruction of the later history of the road in the area of the Poggio dei Cavallari. It seems to be corroborated by the evidence of the inscription, especially considering the tasks that were subsequently assigned to an \textit{aedilis}.\textsuperscript{395} As far as the duties of the official in Satricum are concerned, all suggestions are of course a matter of speculation. But it is not unreasonable to imagine that his responsibilities would have been similar to those of later \textit{aediles}, such as the upkeep of streets and public buildings, or the maintenance of public order, or the supervision of the food supply.

The inscription is clearly of fundamental importance both for the interpretation of the funerary remains and for any attempt to understand the community using the necropolis. While analysis of the burials has suggested a group of people with apparently no internal social distinctions, the text on the axe-head points in the opposite direction, suggesting a hierarchical social order. As such the inscription represents a warning against making easy assumptions on the basis of patterns observed in the burial record. Without it we would be left with a quite different impression of the community, one shaped by the underlying uniformity and comparative modesty of the burials. It now seems reasonable to conclude, however, that fifth-century Satrican society was more complex than it would appear at first sight. The consistent evidence of organization reflected in the overall burial record are, in my view, in line with this conclusion.

A further find that implies a relatively high standard of living is a textile fragment recovered from one of the graves in the Southwest Necropolis.\textsuperscript{396} The textile is of a remarkably fine fabric - probably wool, but even silk has been suggested - showing extremely fine weft threads.\textsuperscript{397} Apart from the textile, which was found with the remains of a metal ring-shaped object, the burial contained only a lead amulet and an iron fibula.

\textsuperscript{393} See Cornell 1995, 263-265 on the \textit{aediles} in Rome.

\textsuperscript{394} As mentioned earlier, the exact attribution of the axe-head is problematical. On account of its discovery in one of the largest graves (2.70 m) of the necropolis, the axe has recently been attributed to an adult (Colonna 1995, 11). It is to be noted, however, that this attribution diverges from the recorded pattern of miniature lead objects associated with child burials. Furthermore, the axe-head was found in the upper layers of the fill, which accords with the observed pattern of child burials dug into the graves of adults (see Gnade 1992a, 274-276, on the find circumstances). It is therefore quite plausible, also in this case, to attribute the axe-head to a child. It might have been the son of the \textit{aedilis} concerned, who thereby symbolically transmitted his status to his descendant.

\textsuperscript{395} Cornell 1995, 263-265.

\textsuperscript{396} Grave 141.5, Gnade 1992a, 355, Fig. 35. For the analysis of the textile, see Vons-Comis in Gnade 1992a, 115.

\textsuperscript{397} At my request, as part of the re-evaluation of all the finds from the Southwest Necropolis, G.M. Vogelsang-Eastwood has kindly re-examined the piece of cloth and confirmed the findings of S. Vons-Comis. In addition, it would appear that there is another fragment which is of a coarse nature. In both cases she suggests fine wool as the original source of the fibres (rejecting the earlier suggestion of silk). In each case the weft threads are z-spun (the warp threads are hidden by the other system and cannot be determined). The weave is a weft-faced tabby (namely, more weft threads per cm than warp threads). The thread count of the newly identified piece is: warp - 12 threads per cm; weft - between 40-50 threads per cm. The presence of several threads going over three warps leads her to suggest that the cloth may contain a weaving fault.
The quality of the cloth suggests a certain degree of prosperity which is quite at odds with the otherwise simple impression conveyed by this particular burial. A comparable simplicity was encountered in the grave containing the axe-head with inscription. Just as the inscription provides valuable clues to the political structure of the community, so the fine quality of the cloth suggests an unexpected level of sophistication.

A final source of information that sheds light on the fifth-century community is offered by the skeletal remains, which have recently been re-analysed. The results of this research reveal, in general, a fairly good state of health and a reasonable longevity. Most notable, perhaps, is the healthy state of the dental elements. These show a low rate of caries, implying some form of dental care, a high consumption of vegetables and a low consumption of sweet food.

It was established that the diet consisted predominantly of vegetables and cereals, but that it also contained protein-rich foods such as meat and milk. The research thus provides evidence for a subsistence economy based on agriculture, but incorporating forms of proteic production such as breeding and (probably) stock-raising (see Rubini et al. in the Appendix).

Some of the skulls show obvious traces of *cribra orbitalia*, small holes in the vault, a lesion that is closely akin to a known Mediterranean type of anaemia, called *thalassemia*. This may be the result of protein-poor diets but - more relevant to the situation in Satricum - it is also associated with blood loss due to parasites, especially malaria. Neither, however, prevented the community from establishing a presence that lasted for around a century.

To summarize the above, it is fair to conclude that the circumstances of life in fifth-century Satricum must have been relatively stable, sufficient at least to allow the community buried in the Southwest Necropolis to develop a settled mode of existence. Further, their society appears to have been more complex than one might assume from the modest funerary remains they have left us. The main evidence for this complexity is the inscription reference to an *aedilis*, implying political organization within the community.

### 3.3.3 A Volscian or a Latin necropolis?

One of the most intriguing questions surrounding the Southwest Necropolis concerns the ethno-cultural identity of those buried in it: were they Latins, Volscians or a mixture of the two? In recent years this has become one of the main areas of debate for those seeking to interpret of the archaeological remains of Satricum in the fifth century. It has also provided the startingpoint for the present study.

The issue of the ethnic identification of the necropolis is closely related to the annalistic tradition that assigns a central role to the Volscians in the later history of Satricum (see

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398 Rubini *et al.* in the Appendix.

399 See also Morris 1992, 92-101 for a clear synopsis of the possibilities of research on skeletal remains.

400 *Cribra orbitalia* was especially noted in the case of the girl buried in the Poggio dei Cavallari, see Rubini *et al.* in the Appendix. See also Morris 1992, 94-95 (with references), for a short explanation of this bone deviation.

401 On malaria in the Pompine region, see references in Attema 1993.

402 See Attema *et al.* 1992, 75-86 (esp. 82-84); Bouma 1996, I, 194-200.
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Ch. 4). The settlement is mentioned in direct association with their name and military activity, first in 488 and increasingly during the early fourth century. On the basis of the literary accounts it seems reasonable to assume that Volscians were living in the area and, very probably, within the settlement of Satricum itself. With the discovery of the fifth-century necropolis and its tentative attribution to the Volscians, this assumption may have found its archaeological confirmation.

This rather simplistic reconstruction raises two important methodological problems. The first concerns the legitimacy of interpreting material remains in the light of historical sources. The second concerns the difficulty of identifying and distinguishing ethnic groups within the archaeological record.

We will return to the first issue in the next chapter, where the image of the Volscians portrayed by the historical sources will be discussed. The second issue will be dealt with here. The question to be settled is therefore: can the material remains in the Southwest Necropolis be interpreted as Volscian? Or, in other words, are the buried people Volscians?

The complex matter of ethnicity has been at the centre of scientific debate for the last two decades. The more or less accepted conclusion to emerge that it is not possible to define ethnic identity by objective criteria. Ethnic identity is considered to be essentially a matter of self-definition. According to this view, ethnicity depends on what people say about themselves, not on what they do. Shared history, common descent, genealogy and mythology are seen as the defining criteria, whereas other possible factors (like common language, shared religion and shared material culture) are considered secondary elements that are subjectively employed by groups to define or maintain their ethnic boundaries. In line with this view, material culture alone, without supporting literary evidence, is considered an insufficient basis for the establishment of ethnic identity. By the same token, the idea that ethnic groups are necessarily visible in material culture is seriously doubted.

This approach precludes the possibility of deducing ethnic identity from the archaeological record and, as might be expected, it is not one shared by all those working in this field of research.

As far as the study of ethnicity in ancient Italy is concerned, the literary tradition presents a large number of distinct ethnic groups, each ascribed with its own language, culture, mythology, social customs and political structure. A major problem, however, is that the sources are written predominantly from an outside (Roman) perspective and thus are

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403 See the next chapter for the historical references to Satricum and to the Volscians.
404 See Gnade 1992a, 15-16, for the attribution of the Southwest Necropolis to the Volscians.
405 One of the more important studies in the field of ethnicity in recent years is that of J.M. Hall, Ethnic Identity in Greek Antiquity, published in 1997. In Chapter 2 the author gives his definition of the ethnic group, stating that ethnic identity is "socially constructed and subjectively perceived" (p. 17). See also Jones 1997, xiii, for her definition of the ethnic group, which is in line with that of Hall.
406 Cf. Hall 1997, 19-33 (defining the ethnic group).
407 See Hall 1997, 111-142, especially his conclusion on p. 142.
408 For reactions to Halls' publication, see the review feature in the Cambridge Archaeological Journal 48.2, 1998, 265-83. See especially Morris, p. 270 and Jones, p. 273, for their view on the impossibility of distinguishing ethnic identity in the archaeological record.

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highly subjective in nature. Ethnic identities seem to have been constructed to serve the purposes of Rome as the dominating power. In most cases, due to the absence of any direct written source, there is no way of knowing how the different peoples thought about themselves. Yet, despite the Roman perspective, there seems to be general agreement on the actual existence of most of the ethnic groupings described. The basic problem remaining, then, is how to make connections between these groupings and the only direct source which exists, the archaeological (and sometimes the iconographical) evidence.

In the case of at least one ethnic group, the Samnites, there are - owing to their longevity as a cohesive cultural body opposed to the power of Rome - some actual records like inscriptions and coins. These on the one hand attest to the existence of the ethnic group as such, and on the other give some insight into its own sense of ethnic and cultural identity.

In the case of the Volscians we have no such records. This is the prime reason for the absence of what might be called a Volscian archaeology. On the other hand, there seems to be little doubt about the existence of the Volscians as a group, nor about their presence in the region of southern Latium. To interpret the Southwest Necropolis of Satricum purely in the light of this 'presence', however, would be very questionable. In the history of archaeology, specific burial practices have often been equated with ethnic identity, just as changes in mortuary disposal have been connected with the arrival of new population groups. The validity of such interpretations has been amply discussed and in most cases it has been demonstrated that there is no ethnic significance to distinctions between particular burial rites. Some archaeologists are even convinced that it is not possible to establish any correlation between mortuary rites and ethnic affiliation. A notorious example in the study of early Rome was the assignment of cremation practices to the Romans and inhumation practices to the Sabines. It has since been convincingly demonstrated that the distinction between the two rites is a matter of chronology and has nothing to do with ethnic identities.

The presumed Etruscan domination of Rome is another well-known example of oversimplistic interpretation of material evidence in terms of ethnic identification. Although Etruscan influence is unmistakably present at all levels, it would be going too far to see sixth-century Rome as a town invaded by Etruscans, who are subsequently responsible for all cultural and political change.

In the light of the above, the chances of establishing a Volscian presence in Satricum from the archaeological record would appear rather slim. Moreover, the presentation of the layers covering the Archaic road has demonstrated a clear cultural continuity which provides no grounds at all for believing that settlement life in Satricum had come to an

410 Cf. Lomas in Cornell/Lomas 1997, 2, 4-5.
413 See, for instance, Cornell 1995, 304-309.
415 Cf. Binford 1971, 6-28, who doubts the possibility of establishing any such correlation.
416 Müller-Karpe was the first to demonstrate that there is no correlation between particular methods of mortuary disposal and the distinct communities in Rome. Rather, the two rites represent successive phases of one group, Müller-Karpe 1959, 36-39; idem 1962, 44-6.
417 For a detailed discussion of this case, see Cornell 1995, 159-72 and idem 1997, 9-21.
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abrupt halt or that the settlement had been invaded by new settlers. The vessel-types recorded for the fifth and fourth centuries, falling as they do within the familiar production range of Latial pottery, also indicate continuity. Similarly, technological development as represented by differently manufactured fabrics is also in line with that recorded in the rest of the region. The archaeological record thus seems to offer nothing in support of a Volscian presence in town.

This continuity apart, however, the archaeological record also reveals several fundamental changes, which I believe can be explained in terms of ethnic diversity. These changes are most evident in the field of mortuary practices and their main feature is the deliberate decision to bury the dead in places that had been part of the urban area during the sixth century. These even included the sacral grounds of the acropolis. If we accept that the former urban area was still inhabited during the fifth century - and given the evidence presented earlier, I see no reason to doubt this - such practices would have gone against all Latin tradition. This especially applies to the burials on the acropolis (see above, Ch. 2.2.1).

At the same time, we can assume that the location of the former burial ground - the Northwest Necropolis - was still known at the time the Southwest Necropolis was initiated. Indeed, its large burial mounds must still have been visible. And yet new burial grounds were selected and laid out along lines that seem to have nothing in common with earlier practices. The decision to bury the dead in these new, empty places - devoid of memories related to earlier inhabitants - can, in my view, be interpreted as a conscious decision to emphasize a distinct identity for a specific group. The force of this argument increases when set against the background of the strong ancestral character of the Northwest Necropolis. The large burial mounds, used for many generations, are undeniable expressions of ethnic affinity. By selecting new areas, the connection with the earliest inhabitants is deliberately interrupted. At the same time a new ancestral line is developed, as has been shown in our reconstruction of the layout of the necropolis in terms of family groups.

One feature widely regarded as distinctive of ethnic identity is a conscious connection with an ancestral homeland. In the case of Satricum such a connection is most convincingly demonstrated by the changed name of the settlement. From Livy we know of the existence of another Satricum, situated in the interior of the Apennines, or more precisely in the middle Liris valley (see next chapter). In addition, the memory of the ancestral territory may also be visible in the burial record itself, in objects possibly possessing an intrinsic ancestral significance. As shown above, a number of graves in the Southwest Necropolis contained objects dating from earlier periods (Iron Age sherds and a partially preserved Iron Age impasto stamnos). It has been suggested that the sherds may have been intentionally thrown into the fill as part of a ritual expressing a link to the indigenous background of the deceased. Two of the fragments recall amphorae of a type known from Alfedena, a site in the central Apennines. With regard to the impasto

420 For instance, tumulus C that covers a period of about 150 years, see Waarsenburg 1995a, 293-398.
422 Livy IX, 12,5; XXVI, 33, 10; also, Cic. Q.fr. III, 1,4. Cf. Coarelli 1990, 149.
423 For references regarding the Alfedena-amphorae, see above, n. 172.
vessel, no direct parallel is at hand, at least not in Latium. A provenance from the same interior Apennine area may be proposed. It has been interpreted as an heirloom by reason of its antiquity.

Apart from these isolated instances, there is one particular category among the burial gifts that satisfies the requirements of ancestral indices in a much more consistent manner. This is the kantharos or amphoriskos with double-reeded handles of imitation bucchero, a vessel-type alien to the Latial repertoire, and one that finds its most direct parallels outside the Pomptine plain, especially in the necropolis of Alfedena (Fig. 22).424

Since the publication of the Southwest Necropolis in 1992 several additional specimens have been discovered, mostly it must be said in the Satricum context.425 The occurrence of the shape in Arpino426, Frosinone427 and in the Votive Deposit of Anagni (S. Cecilia428, which yielded six specimens) confirms the connection with the inland areas and the circulation of the shape along the N-S route of the interconnected valleys of the Sacco and the Liris.429 As an obvious development of an Archaic shape that occurs most frequently in the necropolis of Alfedena, the kantharos may be seen as a marker of indigenous strains and thus as an element implying the non-Latin identity of the deceased. It may therefore be interpreted as an artefact consciously selected from within the material repertoire as emblematic of ethnic background.430

The case of Frosinone
To help us solve the complex problem of the ethnic identity of fifth-century grave occupants in Satricum, we should extend our view to the inland areas. More specifically we can look to the town of Frosinone in southern Lazio—situated in the Lepini Mountains, along the N-S route of the Sacco and Liris valleys—which now supplies a new point of reference in the 'resurrection' of the Volscians (see below).

At the time of the publication of the Southwest Necropolis, in 1992, ancient Satricum was the only Latial site with regularly furnished graves dating to the fifth century. Shortly after, however, a body of material was rediscovered in storerooms in the town of Frosinone that closely resembled that from the graves at Satricum. It appears that numerous fossa-graves had been brought to light in the early 1960's, during building activities in the centre of the town. The discoveries were not published.431 Recently, part

424 On the group as a whole, see Stibbe 1992, 72-76. The denominations of kantharos and amphoriskos occur interchangeably: see Bouma 1996, I, 380, n. 718 for a discussion on the name; also Ginge 1996, 90. For the sake of consistency, I here use the name kantharos since it was used in the publication of the Southwest Necropolis.
425 See Bouma 1996, I, 381-382 for a list of parallels, both from Satricum and other sites. The shape has been recorded in Satricum in Votive Deposit II (11 more or less reconstructable specimens, two of which in plain ware, and some fragments), in one or two graves on the acropolis (three specimens), and in the S. Lucia Votive Deposit, in the southwestern part of the settlement (one specimen, Ginge 1996, fig. 34, LVD44). Fragments of the vessel have also been found in the dump layer in the Poggio dei Cavallari.
426 Rizzello 1980, 50, 3 no. 7.
427 Colonna 1995, fig. 13.
428 Gatti 1987, fig. 7; eadem, 1988, figs. 9-10; eadem, in CatGrande Roma 1990, nos. 9.5.20, 9.5.22, 9.5.28.
431 We owe our knowledge of the existence of the graves in Frosinone primarily to Italo Bidditu, who first gave notice of the finds in 1969 (Biddittu/Cassano 1969, 319, fig. 6, a child burial) and published the contents of one of the graves in 1989 (Biddittu 1989, 11-17). Part of the material has now been published in Colonna 1995, figs. 8-13.
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of the material has been collected and restored. It comprises finds from seven graves, which are collectively known under the name *De Matthaëis*, and objects from another grave found under the *Banco di Napoli*. Since 1994 the collection has been on view in the Archaeological Museum of Frosinone. Among the material are vases that are surprisingly similar to those found in the graves of the Southwest Necropolis of Satricum. These include *olle bugnate*, which are present in three graves, a bucchero kantharos with double-reeded handles, two plain bowls, a small plain ware bowl, two plain ware jugs, a plain ware stamnos with painted bands, a bucchero bowl and a miniature plain ware jug, the last three all found in the same grave. A few bowls with black painted bands have no direct parallels in the Southwest Necropolis, but belong to a category of pottery that has been encountered in the dump stratum of the Poggio dei Cavallari (see above). Two iron lanceheads, comparable to those recovered in the Southwest Necropolis but far better preserved, were found in close proximity to the graves of the *De Matthaëis* group.

Unlike Satricum itself, Frosinone has also yielded remains of buildings that can be positively associated with the graves. For the past four years excavations have been conducted in a small area along the Viale Roma. The preliminary results of the first two excavation campaigns (1996-97) were published in 1998. Among the pottery finds are many that have direct parallels in Satricum, either in the Southwest Necropolis or in the upper layers of the Poggio dei Cavallari. An assemblage of large storage jars, found broken *in situ*, is relevant here. All jars show the characteristic fifth century orange fabric with heavy augite tempering and many are provided with bosses on the shoulders. They are much larger, however, than their direct parallels in the Southwest Necropolis. There are also fragments of large basins with lugs connected to the base (the Archaic

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432 The material has become accessible to the public thanks to the tenacity of Dott.ssa Maria Teresa Onorati, director of the *Museo Archeologico Comunale di Frosinone*. It was during a chance visit in 1993 that I came across the collection in the newly opened museum. In 1994-1995 an exhibition was held *Sulle tracce dei Volsci*. Amongst other things, this displayed the *De Matthaëis* finds together with a selection of materials from the Southwest Necropolis. I would like to take this opportunity to thank Dott.ssa Onorati for kindly offering me the chance to study the material in the Museum of Frosinone and for sharing her ideas with me.

433 For a first discussion on the significance of the finds in relation to those of the Southwest Necropolis of Satricum, see Gatti/Onorati 1995, 38-41. The graves were possibly provided with roof-tiles, see Onorati 1998, 54, n. 53.

434 Necropolis *De Matthaëis*, graves 2, 3 and 6; see also Onorati 1998, n. 55 on p. 54; cf. Steures 1992, 62-63.

435 Necropolis *De Matthaëis*, grave 6; cf. Stibbe 1992, 72-76.

436 Necropolis *De Matthaëis*, grave 2 and a sporadic find; cf. Southwest Necropolis, grave 25.4, Gnade 1992a, 162, Fig. 1.

437 Necropolis *De Matthaëis*, grave 2; cf. Southwest Necropolis, grave 142.8 (shallower and less straight at the foot), Gnade 1992a, 356, Fig. 4.

438 Necropolis *De Matthaëis*, grave 6 and an identical, larger specimen from grave 5; cf. Southwest Necropolis, grave 177a.3, Gnade 1992a, 420, Fig. 19, Pl. 7a.

439 *Banco di Napoli*; cf. Southwest Necropolis, grave 121.5 (for shape of lip), Gnade 1992a, 317.

440 According to the information on the Museum display card, the finds belong to one grave, found by Antonio Flandina under the Banco di Napoli at a depth of c. 1.50 m. The walls of the grave are said to have been covered by irregularly shaped slabs of travertine, whereas the grave itself was covered by larger and thinner slabs; the skeleton was found in an extended position. Apart from the three vases mentioned in the text, the grave also contained a bowl with painted black bands. This too is on display.

441 The weapons have been found in the area of the *Consorzio agrarico*, see Onorati 1998, fig. 54 for a map showing the various findspots of the graves.


443 I was given the opportunity to study the storage jars in the store-rooms of the museum, where they are presently being restored.
teglia-type) and fragments of basins manufactured in densely tempered white clay and decorated with painted bands. Furthermore, there are jars with an encircling finger-impressed cord decoration, many lid-bowls of the type *con piede sagomato 'a becco di civetta'* and a large number of more or less rectangular loom-weights in densely tempered coarse ware.\(^{444}\)

A most interesting find is that of a perforated lead disc. This has exact parallels in Satricum, where such discs were found in three graves in the Southwest Necropolis. On account of their position in the graves - on top of the skeleton, above the heart - the discs have there been identified as amulets.\(^{445}\) Their ritual connotation now seems to be confirmed by the special find circumstances of the Frosinone disc.\(^{446}\) The object was found in an apparently votive context, one of a small collection of finds consisting mainly of fragmented vessels. They included a jar with encircling finger-pressed cord decoration and several iron objects, including a miniature saw. The finds were in a stratum containing many small pieces of carbon and charred bones and were covered by a set of complete pan- and cover-tiles, systematically positioned. The presence of the roof-tiles, combined with the charred bones and pieces of carbon, in my view suggests that the assemblage constitutes the remains of a burial. If so, it would underline the already strong connection between Satricum and Frosinone.

So far, Frosinone is the only place where finds almost identical to those at Satricum have been made, and furthermore in comparable contexts. The importance of these discoveries is evident. Their significance lies not so much in the similarity of the individual objects, but more in their general coherence and in their associated contexts. It is clear that Frosinone was inhabited during the late sixth and fifth centuries by people that practised the same funerary rites as those living in Satricum. Certainly, their dead were provided with comparable sets of grave gifts. It is true that these discoveries may not provide irrefutable evidence for a Volscian identification of the archaeological remains of Satricum. However, in my view the contextual analogy of the Frosinone finds, located as they are at a considerable distance from Satricum and in an area that otherwise seems to have no archaeological connection with the Latial plain, indicates a high degree of cultural and ethnic similarity between the inhabitants of Satricum and Frosinone, be they Volscian or not.

The significance of the Frosinone record for the Volscian case is further enhanced by the location of the town, which stands on the ancient routes which in one direction connected the Apennine interior with the coastal plains and in another formed the main N-S axis used by indigenous groups.\(^{447}\) It is very likely that the Volscians, on their long migration from their Apennine homeland to the coastal plains, settled in Frosinone, just as they presumably did in the numerous other sites traditionally linked with their presence: for example, the nearby centres of Sora and Arpino.\(^{448}\)

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\(^{444}\) Onorati 1998, 54-55, nn. 54-58, figs. 48-52.

\(^{445}\) For the Frosinone lead disc, see Onorati 1998, 50, fig. 30; for the lead amulets in the Southwest Necropolis, see Meering 1992, 110.

\(^{446}\) For a description of the find circumstances and their attribution to the ritual sphere, see Onorati 1998, 50, figs. 25-28, 39.

\(^{447}\) On the route, see Gatti in *CatGrande Roma* 1990, 224; also Pallottino 1991, 72.

\(^{448}\) On the complicated matter of the homeland of the Volscians, which is traditionally located beyond the Fucino basin, see Devoto 1968, 113-114; Radke 1961, in *RE*, 801-807; see also Coarelli 1990, 139, who proposes the interior Sabine area, adjacent to Umbria, as the homeland; most recently, Colonna 1995, 12-13.
It is evident that the discoveries in Frosinone provide valuable pointers towards an identification of the dead in the Southwest Necropolis. Though no absolute proof in themselves, they offer a strong external argument in support of a Volscian identification for the necropolis.

The lead axe-head with Volscian inscription

Another undeniable reference to the inland areas is provided by the inscription on the lead axe-head, the language of which has been tentatively identified as Volscian (see above for the interpretation of the text). The axe-head may thus be considered the most convincing piece of evidence supporting a Volscian identification for the Southwest Necropolis, or at least for the individual buried with the axe.

Various links have been traced between aspects of the inscription and the South-Picenum dialect, establishing a direct linguistic connection with the Sabine-Tiber region, between Capena, Cures and Magliano. This implies a more western origin for the Volscians than the traditionally favoured Fucino basin. Coarelli, evaluating an antiquarian reference to a conflict between the Tiburtines and the Volscians, had already ventured a similar suggestion.

According to his interpretation of this antiquarian report, the Volscians at an early stage had advanced to Tivoli along the central valley of the river Aniene. When they did not succeed in their attempts to reach the coastal plain, they supposedly moved eastwards to the Fucino area, from where they embarked on their later raids into the plain.

The plausibility of the inscription as a marker of Volscian identity is greatly enhanced when we combine the personal character and the funerary status of the object with the language specifically used. It seems to me highly unlikely that such a personal item would have been given to a Latin, say as a valuable imported piece with a merely exotic value. An indirect link between the object and the deceased may, on the other hand, be inferred from the large size of the underlying grave, into which the child's grave containing the axe was presumably dug. We can reasonably assume some connection between the size of the grave and the elevated rank of aedilis mentioned in the inscription. As suggested earlier, the axe might have acted as a symbolic transmitter of status from father to child.

This rather unexpected link between an official magistrature and a 'quarrelsome mountain tribe' (see Ch. 4), dating from before any Roman dominion, is supported by references to Volscian aediles in three other Volscian cities: Arpinum, Formiae and Fundi. The traditional Volscian image, based as it is on the literary sources, is obviously in need of revision.

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450 Coarelli 1990, 139.
451 See Bouma 1996, 1, 199, for this suggestion.
452 See n. 394, for the discussion of the problem of attribution of the axe-head. Cf. also Colonna 1995, 11, on his attribution of the axe-head to an adult on account of the size of the grave.
The archaeological record also offers some other peculiarities worth presenting in this survey of elements relevant to a reconstruction of the identity of the dead.

The use of lead may be mentioned, for example, as a detail that seems closely related to the cultural sphere of the group. To my knowledge, its specific combination with miniaturized weapons is not paralleled in other contemporary Latial contexts in the Pompitine plain.\footnote{Miniature lead weapons were probably also present in the graves on the acropolis, as may be deduced from the sporadic find of a miniature lead axe in 1990 (V 2702, unpublished). The piece has been consigned to the Groningen excavation team which is dealing with the graves on the hill. A miniature lead axe has also been recorded in the votive deposit of S. Cecilia-Anagni (personal communication of S. Gatti). As noted earlier, this deposit also yielded six specimens of kantharoi with two-reeded handles (see above).}

Among the pottery in the necropolis there are two vessel-types that attract attention, on the one hand because of their 'strangeness' to the Latial repertoire, on the other because of their consistent presence. We have already dealt with the kantharoi or amphoriskoi with double-reeded handles. Another shape that may be considered an alien element in the necropolis repertoire is constituted by the *olla perforata*. The jar has been associated with the kernos-jar in Votive Deposit II, for which an origin in the Abruzze has been suggested. It seems as if both the kernos-jar and the *olla perforata* may be local varieties of indigenous, non-Latin shapes.

Another strong indication of a different cultural, non-Latial background for the deceased is the way in which the children were treated. As we have seen, the practice of burying children in the same necropolis used for adults does not accord with Latin custom. The practice itself, and especially the attention given to some of the child burials, find their most convincing parallels in the indigenous Central-Italian world (see above).

A final point that may be significant in our attempt to determine the identity of the dead concerns the time-span covered by the burials. It is noteworthy that the burials seem to disappear from the archaeological record of Satricum just as suddenly as they appeared. The necropolis thus represents a narrowly defined chronological block. In the discussion surrounding the identification of the cemetery, attention is generally centred on its initial date, which strikingly corresponds with the historical capture of Satricum by the Volscians. As will be shown in the next chapter, a similar correspondence can be observed with regard to the final date. From the moment that the Volscians of Satricum reappear on the historical stage, due to military action centring on the town, the Southwest Necropolis is no longer in use. This observation is all the more remarkable in view of the fact that life in Satricum went on, as may be inferred from the continuation of both the religious and the domestic records. The former are reflected in the votive offerings, while the latter have been recorded in the upper layers in the Poggio dei Cavallari. Taken together, however, the two cases of correspondence between the archaeological evidence and the historical account, add credibility to a Volscian identification for the necropolis. It is very possible that, during the period when the name of Satricum does not appear in the sources, the community were able to develop a peaceful and - as has been shown in the analysis of the burial record - a stable existence. From the moment that Satricum is submerged in war, the population associated with the burials in the Southwest Necropolis seems to become invisible. We can imagine that it simply moved elsewhere, or that war had
disrupted the normal practices which previously surrounded the careful burying of the dead.

3.3.4 Conclusions

The evidence incorporated in the burial record of the Southwest Necropolis has offered some insight into the fifth-century community of Satricum. During a continuous period of at least one century this community took care of its dead in a uniform and orderly manner that leaves little room for the interpretation of individual distinctions. Observed differences in the grave furnishings - either in the number or the costliness of burial gifts - have been interpreted in the light of the general economic development of the community which is revealed over time. Individual social distinctions may have been expressed via the specific orientation, type or size of the grave, but these cannot be ascertained. However, the find of the lead axe-head in the top layer of a very large grave shows that the possibility cannot be excluded.

The organizing principle in the layout of the burials seems to have been strongly based on descent. This is reflected both in multiple burials in a single grave and in plots of intersecting or adjacent graves. On the other hand, a certain chronological development has been recognized in the spatial arrangement of the graves, the earliest graves occurring in the high ground of the northeastern section. Over time the necropolis seems to have expanded down the slope towards the south and southwest.

The necropolis was open to all members of the community irrespective of age, but male burials seem to predominate. All individuals were treated alike, with a similar measure of care shown in the disposal of each body within a coffin and grave. The fact that children received similar treatment is remarkable in the context of Latial practices, where children were customarily buried within the settlements.

The grave gifts are in general modest in number and character. They seem to have been given to the deceased for their journey to the hereafter, probably containing a small supply of food. Organic remains were still present in a number of vases. Part of the outfit was probably made especially for the burial, as is most clearly shown by the occurrence of miniaturized objects. The rarity of some of the vessels in other contexts also implies a specific funerary character, as does the fact that the more common shapes tend to be quite small.

Gender-defined grave gifts are few, but have been positively identified by cross reference with skeletal analysis in the weaponry provided for men and in the spinning and weaving attributes provided for women. On the grounds of the regular presence of one type of vessel - the *olla forata* - in graves that are positively identified as male, this vessel has also been identified as a male object.

The community buried in the necropolis was probably well-organized and, most likely, less simple than may appear at first sight. These conclusions are based on a number of principles underlying the layout, as well as on the identification of a magistrate among the dead.

The burial record is not very informative about the military status of the deceased. Only a few iron weapons have been recorded and these can be regarded as honorific items. A strong underlying military sentiment may be inferred, however, from the quite regular occurrence of miniature lead weapons in children's graves. Agriculture and a moderate level of stock-raising were the main forms of subsistence.
The necropolis is dated to the fifth century on the basis of a few datable vessels. As such it is unique in ancient Latium: from the late seventh or early sixth centuries this region is characterised by the general absence of a burial record. The exceptional status of the Southwest Necropolis in Latial archaeology is here linked to the presumed residential presence in Satricum of a group of people with a non-Latin background; in this case the Volscians, who are known from the historical sources. Evidence for a Volscian identification of the necropolis is supplied by the deliberate decision to bury the dead in a new burial location and by ancestral links with an Apennine homeland. The presence of a Volscian inscription on a personal object can be considered important corroborating evidence for a Volscian identification of the burial ground.
4 THE VOLSCIANS IN HISTORIOGRAPHY

Introduction
To understand the historical context of the archaeological remains of Satricum in the fifth and fourth centuries, the literary sources for this period deserve to be taken into account. Indeed, the site provides rich opportunities to re-assess the value of seeking historical potential in archaeological remains (see below). Equally, it can be used to shed quite a different light on the one-sided picture presented by historical accounts written from a Roman viewpoint.

As shown in Ch. 3, the archaeological evidence at Satricum reveals an unmistakable continuity on most levels of society after the Archaic period. Archaeological research has also demonstrated that certain features, notably mortuary practices, differ fundamentally from earlier periods and as such reflect profound changes in the character of the settlement. Various ideas have been put forward to explain these changes. It has been suggested that they are to be read in the light of the general economic decline of the Latial region, itself the result of the instable political situation during the early Roman Republic and to the many wars which are reported by ancient historians. In the case of Satricum, this is said to have resulted in the abandonment of the settlement (see Introduction). Another view, similarly corresponding to the annalistic account, interprets the changes in terms of an etno-cultural transformation. The indigenous Volscians, well-known from the literary sources, are regarded as the most plausible candidates responsible for the changes in the archaeological record. According to the historiography, the area surrounding Satricum was in Volscian hands during the fifth and much of the fourth centuries. Indeed, in several references the name of the town is directly linked with a Volscian presence.

The arguments against the first view have been discussed at length in the previous chapter. The questions that immediately arise in relation to the second view are: Who were these Volscians? And is it possible to connect their alleged presence with the material remains discovered in Satricum? In my attempts to find an answer to these questions, I have encountered a number of methodological problems which are inherent to the use of historical sources. These involve, firstly, the credibility of the historical record and, secondly, the legitimacy of interpreting archaeological evidence in the light of literary sources.

The main literary sources for the Volscian presence in Latium are Livy and Dionysius, with Livy's account covering the longer period. The two are surprisingly consistent in their reports of military confrontations between the Romans and the Volscians throughout the fifth century. Together with other Central-Italian peoples (notably the Aequians, who also feature frequently in the sources) the Volscians are regarded as a threat to Rome's security and as a serious

455 See, for example, Attema 1993, 17-18, 212.
obstacle in her efforts to establish supremacy in Latium.\textsuperscript{457} During the early years of the fifth century they occupy the cities of southern Latium, while the Aequians are a constant threat to the cities in the east. A Roman campaign against the Aequians and the Volscians is recorded for almost every year between c. 495 to c. 455, with their armies occasionally reported at the very gates of Rome.\textsuperscript{458} Only after the middle of the fifth century do Volscian attacks appear to become much less frequent.

The prominent role which the literary tradition accords to the Volscians in the early Republican period cannot be ignored.\textsuperscript{459} The reliability of the Roman sources, however, written as they were at a much later period, remains a matter of debate. Firstly, there are questions about the origin of the sources themselves: \textit{i.e.} how did information about such a remote period survive and how was it elaborated?\textsuperscript{460} Secondly, there is the issue of the intrinsic credibility of the annalistic data: \textit{i.e.} how far can we accept the bare facts concerning, for example, the number of military confrontations, victories, defeats etc. between Rome and her opponents. The discussion hovers between an hypercritical approach, which rejects most of the information about early Rome in the sources as sheer invention and considers other facts as untrue unless corroborated by independent evidence, and a less sceptical view, which assumes the basic authenticity of the annalists' data but recognises that they are presented within an embellished narrative.\textsuperscript{461} In the view of those who favour the less sceptical approach, writing history in Roman times was primarily a matter of giving an entertaining account. To this end various techniques were adopted, such as the embellishing of facts, the use of rhetoric and the inclusion of speeches.\textsuperscript{462} Despite these distortions, the basic outline of events, \textit{i.e.} the bare record of military campaigns, triumphs, defeats, peace treaties etc. are to be regarded as fundamentally sound.\textsuperscript{463} It is argued by Tim Cornell that the rejection of information as fiction or invention unless verified by a reliable independent source, would, \textit{a priori}, rule out almost everything in the historical record.\textsuperscript{464} Instead, he prefers to take the inherent probability of the historical account for granted, arguing that "historians always work on the basis of probability" and suggesting that the burden of proof lies with those who refuse

\textsuperscript{457} The literary sources identify various peoples coming down from the Appenine hinterland to the coastal plains in the fifth century. They all pose a threat to the existence of Rome and constitute a serious obstacle to her expansion throughout the century. Among these are the Sabines, Aequians, Hercinions and Volscians.

\textsuperscript{458} Cornell 1995, 307-9; cf. the list of wars between Romans and Volscians between 509-483 as recorded by the two ancient authors, in van Royen 1992a, 439; see also Cornell 1989, 290, for a list of Roman triumphs between the fall of the Kings and the Sack of Rome in 390.

\textsuperscript{459} See Cornell 1995, 304-309, for a survey of incursions by Sabines, Aequians and Volscians.

\textsuperscript{460} See, for instance, Raaflaub 1986, 48.

\textsuperscript{461} For a total dismissal of the tradition which gives Rome substantial power before the end of the fifth century, see Alföldi 1965, 318-335. A. Drummond, \textit{JRS} 72, 1982, 177-179, considers the historical account unreliable unless proven otherwise. See also Cornell and Raaflaub, esp. 22-23, 47-51, in Raaflaub (ed.) 1986 and Ogilvie and Drummond in \textit{CAH} vii 2(2), 1989, for the presentation of opposing points of view; also, Cornell 1995, 16-18.


\textsuperscript{463} Cornell 1986, 62-65, esp. 63 where it is argued that "the traditional story represents the truth as the Romans themselves conceived it." Presuming that they did know their own history, Cornell finds it hard to imagine that the Romans were entirely mistaken on what for them were essential aspects of the story. He ends his paper, however, with the argument that the annalists of the final centuries of the Republic had no clear perception of the true political and social conditions of the Archaic period. There was therefore a great deal of misunderstanding and unconscious distortion. Although the result is that "we cannot rely on the sources for answers to even the most basic questions", a core of authentic data must form the basis of the historical accounts (73-76); see also Cornell 1995, 18 and 308, on the authenticity of recorded events, inferred from the marked difference in the numbers of triumphs noted between the fifth and the later centuries.

\textsuperscript{464} Cornell 1986, 64.
to accept such information. To interpret the annalistic tradition correctly, one should strive to distinguish between structural data - the 'hard core' on which the tradition is based - and the narrative superstructure. Unfortunately there seems to be no reliable way to separate truth from fiction, to identify with any certainty the distortions and literary elaborations which Livy and his annalistic predecessors must have superimposed on their material. Each case, it appears, should be judged on its own merits. However, there is an obvious difference in terms of detail between Livy’s account of the early history of Rome and his account of the later period and there now seems to be a consensus that the former is generally less reliable than the latter.

Another problem which is much discussed by those dealing with the annalistic tradition, and one which again bears heavily upon its credibility, is the one-sided, subjective nature of the historical account. The annalists wrote not only at a much later period, but also from a standpoint likely to be coloured. When consulting the literary sources, we read of many different Italic peoples, each with their own territory, cities, political structure, culture, social customs and language. But due to the limited range of evidence (which is largely confined to the annalists) it is virtually impossible to distinguish between genuine and fabricated elements, or even to establish clear distinctions between the identities of the various peoples. It is generally agreed that much of the information on the character of the Italic peoples is provided to assert the superiority of Rome over the rest of Italy. The result seems to be little more than a stereotype of 'otherness', in which typical barbarian characteristics such as bellicosity, disorganization and cruelty are emphasised. Clear examples of stereotyping in Livy are his oft quoted characterisations of the more stubborn opponents of Rome, such as the Volsci in the fifth and early fourth centuries and the Samnites thereafter. In the first case we read of "Volsci, ferocior ad rebellandum quam ad bellandum gens" (Livy VII, 27,7); in the second there is a comparable phrase, the Samnites being described as "...montani atque agrestes..." (Livy IX, 13,7).

Yet it would seem to be an over-simplification to regard Roman portrayals of these groups as pure invention. As Kathryn Lomas recently stated in her introduction to the volume of articles on Gender and Ethnicity in Ancient Italy, it would be an injustice to regard the Italic peoples "as the passive recipients of a cultural and ethnic agenda entirely defined by Rome", or to consider these images as simple products of a purely Roman imagination. At the same time we may assume that Roman accounts contain a kernal of truth. Being a formidable enemy does not preclude a capacity for civilisation.

465 Cornell 1986, 64.
466 Cornell 1995, 18 n. 4, with reference to Momiglano, Sexto contributo, 484, for the distinction between structural facts and narrative superstructure; also, Oakley 1997, viii, on the "hard core" of reliable material in Livy.
467 Oakley 1997, preface 100-102; see also Cornell 1986, 63, who argues that though "the tradition is fundamentally sound in essentials, the case cannot be definitely proved".
469 Lomas in Cornell/Lomas 1997, 4-5.
470 Dench 1995, 72-80; cf. also Hall 1989, 102-113, 149, on ethnic stereotypes in Greek sources and on Greek views of the barbarian.
471 Cf. Oakley 1997, 264 for a survey of similar judgements on other 'nations'.
472 Lomas in Cornell/Lomas 1997, 5; see also, Dench 1995, 22-23, on selective ways of seeing 'the others'.
The annalistic account and the archaeological evidence

In the search for what constitutes the authentic factual substratum behind the ancient narrative, things seem to become easier from the sixth century onward since help is now offered by the archaeological record. A remarkable coincidence in main outline is noted, for instance, between the archaeological remains of sixth-century Rome and the literary account of this period.\(^\text{473}\) The two sets of evidence complement each other well and illuminate the subject to a greater extent than before. Yet despite the apparent coincidence between the two records, this approach holds the implicit danger of circular argumentation: \textit{i.e.} that we are easily lured into finding within the archaeological record confirmation of that which the literary tradition has encouraged us to look for.\(^\text{474}\) The most notorious example in the early history of Rome is probably the connection once made between the historically reported Sabine presence in Rome and the inhumation burials in the Forum Romanum (see also Ch. 3.3).\(^\text{475}\) Another concerns the acceptance of Etruscan domination of Archaic Rome.\(^\text{476}\) On the other hand, it cannot be denied that historians and archaeologists are in pursuit of similar, if not identical, goals in their attempts to reconstruct the past. They merely make use of different bodies of material and apply different methods. Each discipline should therefore make use of the other, though not without exercising due caution, bearing in mind the disparate nature of the evidence they offer.

I happen to agree with Cornell that an historical backbone is present in all archaeological approaches and that attempts to reconstruct a "purely archaeological history" are misguided.\(^\text{477}\) The point is well illustrated by the debate surrounding the interpretation of the archaeological evidence of fifth- and fourth-century Satricum in relation to the town's settlement history. Both the economic explanation of changes observed in the archaeological record during the early Republican period and the view that links the archaeological evidence to the historical Volscians are based on the annalistic narrative. It is, however, in the elaboration of the details that divergent paths are taken, leading in the end to quite different conclusions.

The annalistic record for the fifth century is one of military confrontation, famine and pestilence, events that accord well with the general impression of economic decline. They provide a gloomy background to the social and political conflicts of the period. Some fifteen years ago, Cornell found a close correspondence between this account and the archaeological evidence, which was characterised by a notable lack of finds for this period.\(^\text{478}\) He did concede that fifth-century remains might still be awaiting discovery, and even that fifth-century material might not have been recognised, but did not seriously investigate these options. Cornell considered the coincidence between the two records as reflections of the same historical society, complementing and corroborating each other. Indeed, he accepted it as evidence of the reliability of the main outlines in the traditional account.

To date, the archaeological situation has not essentially changed either for Rome or for the

\(^{473}\) See Cornell 1995, 26-30, on the archaeological evidence from an historical perspective, esp. 28 on sixth-century Rome; also Smith 1996, 2-4; for a contrary view, see Ross Holloway 1994, 6-11, who in a short review of the most important monuments in Rome tries to show how difficult it is to cite archaeological evidence in support of the annalistic account.

\(^{474}\) Cornell 1995, 29.

\(^{475}\) See, for instance, Cornell in Cornell/Lomas 1997, 14.

\(^{476}\) For two contrary views in this matter, see Cornell and Rasmussen in Cornell/Lomas 1997; also Cornell 1995, 151-157, on the myth of "Etruscan Rome".

\(^{477}\) Cornell 1995, 29.

\(^{478}\) Cornell 1986, 68. This view is also taken by Attema 1993.
majority of other places in ancient Latium. However, a different picture has emerged for ancient Satricum. Continuous systematic archaeological research has yielded evidence that points unmistakably to the continuity of the settlement and even to a much more 'developed' society than has often been assumed. At first sight, the archaeological evidence seems not to support Cornell's main conclusion on the correspondence between the archaeological and historical records. Indeed, it seems to confirm his speculation regarding undiscovered material. Yet despite this, Cornell's view of the literary and archaeological records as complementary can still be of value. As has already been pointed out in Ch. 3.3, the new finds in Satricum not only accord with the historical account but may even corroborate it. As will be shown, the correspondence between the two records now appears to be even closer than before, making Satricum a valuable point of reference for the post-Archaic period.

That being said, it seems the right moment to take a closer look at the historical accounts for the sixth, fifth and fourth centuries, to give us an impression of the way the Volscians feature in the traditional narrative. Clearly, a close reading of the historical record, which has long been our prime source of information for this period, should not be lacking here. In the light of recent archaeological discoveries, this reading may lead us to the conclusion that a closer connection exists between the historical and archaeological sources than has been previously thought.

We will start our survey with an evaluation of the information available for the earlier period (which is less consistent) by reviewing the recent debate regarding its credibility. For the purpose of placing archaeological data within an historical context, we will attempt to establish a more precise chronological framework for the historically recorded Volscian presence in Latium.

There follows a detailed overview of the more consistent account for the fifth and fourth centuries. This covers the many military confrontations between Rome and the Volscians, but also takes in other political and military events which, directly or indirectly, can be linked to Volscian activity.

The Volscian episode in Roman historiography
The literary sources present a picture of political insecurity in fifth century Latium, with the Volscians given a major role. Their activities cover a period of almost two hundred years, starting somewhere in the last quarter of the sixth century and ending around 341. In the earlier years of their recorded presence they feature rather quietly in the background, but later become one of the main players in the drama of Rome's rise to supremacy. Their activities are mentioned on at least 53 occasions, either in brief remarks or in extensive accounts. At least 44 of these references are directly associated with military activity.

According to the modern interpretation, the numerous confrontations between Romans and Volscians are part of a wider context, namely that of a general movement of Apennine mountain tribes down to the fertile coastal plains along the Tyrrhenian Sea. Population pressure and poor natural resources are seen as the primary causes for their intrusion into the Latial area.\footnote{Coarelli 1990, 140; Cornell 1995, 305.} The conventional view, however, which is based upon their dramatic reappearance
in the literary sources, is that Volscian incursions were part of a sudden invasion in the first decade of the fifth century.\textsuperscript{480}

An important question which arises in tracing the history of the Volscians turns on their recorded presence in Latium already in the sixth century. Although often rejected as purely fictitious, some have argued that these early references should be afforded a certain degree of plausibility (see below).\textsuperscript{481} It is generally accepted, however, that there is no secure way of knowing precisely when the Volscians appeared in Latium. Intriguing questions, such as how they succeeded in occupying a large part of Latin territory, whether their first infiltration was gradual and peaceful rather than sudden, organized and aggressive, which route they took from their homeland and how and where they lived, are widely considered unanswerable. As a consequence, ignorance of the way in which the Volscians succeeded in occupying important towns like Antium and Pometia has become almost a tenet in itself.

The earliest references to Volscian activities

It is during the reign of Tarquinius Superbus that the Volscians start to appear regularly in the literary sources. On various occasions both Livy and Dionysius explicitly refer to a Volscian presence in Latium during this period, reporting either Volscian military actions or cities that are apparently in their hands. Their account can be supplemented by Strabo, who refers to the Pomptine plain and the town of\textit{Apiola} (see below) as being Volscian during the Regal period. He locates the area on the borders of Latin territory, between the river Storas (Astura) and\textit{Circaedium}.\textsuperscript{482} Among the towns associated with the Volscians at this early date are Velitrae, Ecetra, Antium and Pometia, the last two featuring quite prominently in accounts of the late sixth century and the first decade of the fifth.

It is Dionysius who refers to a Volscian presence during the earliest period. Already in the times of the fourth king of Rome, Ancus Martius, they are reported as raiding Roman territory.\textsuperscript{483} Velitrae is mentioned as one of their cities. After its capitulation, following a Roman siege, the inhabitants are offered peace and a friendship alliance.

The next Volscian appearance, this time in the accounts of both Dionysius and Livy, is about one hundred years later, during the reign of Tarquinius Superbus. Both writers refer to an actual Volscian presence in Latium. As part of Tarquinius' political and territorial expansion programme, the Volscians are invited to join the Roman-Latin alliance. The offer is accepted by only two of their cities, Ecetra and Antium.\textsuperscript{484} The next step is more aggressive and focusses on the important city of Suessa Pometia, which is taken by storm. With the proceeds of the booty Tarquinius starts building the temple of Jupiter Capitoline. Both Livy and Dionysius mention the capture of this city, but only Livy associates it with the Volscians. His description of events is rather casual, but he does cite the capture of Suessa

\textsuperscript{480} This idea was first proposed by B.G. Niebuhr, \textit{The History of Rome}, London 1837-42, and since that time frequently quoted. See, for instance, Devoto 1967.
\textsuperscript{481} For a survey of the differing opinions regarding the reliability of the early annalistic references, see Van Royen 1992a, 437-438; \textit{idem} 1992b, 33. For scholars who tend to support the idea of a Volscian presence in the plains before the end of the sixth century, see De Sanctis 1907, 104; Last 1928, 497-498; Ogilvie 1965, 204-205; Stibbe 1984, 9; \textit{idem} 1987, 10; Coarelli 1990, 139-140; Cristofani 1992, 13-24; Musti 1992, 25-31; Cornell 1995, 304.
\textsuperscript{482} Strabo 5, 3,2-4.
\textsuperscript{483} D.H. III, 41,5.
\textsuperscript{484} D.H. IV, 49,1.
Pometia as the starting point of a war with the Volscians which will last for more than two hundred years.\textsuperscript{485}  

Suessa Pometia occupies an important position in the literary record. It is repeatedly referred to in terms of its size, the number of its inhabitants, its fame and great wealth.\textsuperscript{486} Both Livy and Strabo associate the city directly with the Volscians; Dionysius locates the city in their territory. After its capture by Tarquinius Superbus, the city reappears on three other occasions. In 503 it is mentioned as a Latin colony defecting, along with another Latin colony, Cora, to the Aurunci.\textsuperscript{487} The ensuing battle against the Aurunci is won by the Romans, who thereupon slaughter their prisoners and three hundred hostages.

In the following year, a second major battle is recorded, this time directly related to Suessa Pometia. After initially defeating the Roman army, the city surrenders without a fight when the Roman army returns with reinforcements.\textsuperscript{488} It is razed and its land sold. The final reference to the city is for the year 495, when it is reported as acting as a refuge for Volscian rebels. It is again besieged by the Roman army and sacked.\textsuperscript{489}

In the period immediately after the expulsion of the Tarquinians, the Volscians reappear in another context. Livy briefly refers to the Romans buying up grain from the Volscians (and Cumaeans) in 508, implying that they were already inhabiting the Pomptine plain at the end of the sixth century.\textsuperscript{490}

**Commentary on the earliest Volscian presence in Latium**

Considering the various references to these early Roman-Volscian encounters, it is difficult to escape the impression that the Volscians were more firmly established in southern Latium than is generally assumed. In fact, the sources offer little support for the 'sudden occupation' model that is often put forward. This view is shared by Domenico Musti, in his recent study of the image of the Volscians in the historiography.\textsuperscript{491} He argues that the presumed Volscian invasion in the early fifth century is no more than a modern invention which combines the sudden frequency of references to the Volscians with a *terminus post quern* interpretation of the Romano-Carthaginian treaty of 508.\textsuperscript{492} In Polybius’ translation of this treaty – which guarantees the interests of both Rome and Carthage on the basis of mutual respect - the cities of Ardea, Antium, Lavinium(?), Circeii and Tarracina and the area between them are designated Latin.\textsuperscript{493} This explicit reference to the 'latinity' of the area is often taken as an important argument against the reliability of reports of an early Volscian presence in Latium.\textsuperscript{494} However, as Musti points out, the Latin status ascribed to the area is far more

\textsuperscript{485} Livy I, 53,2.

\textsuperscript{486} Plinius, *Nat.Hist.* XVI; D.H. IV, 50, 2-3; VI, 29,4; Livy I, 53,3; 55, 7-9.

\textsuperscript{487} Livy II, 16,8.

\textsuperscript{488} Livy II, 17.

\textsuperscript{489} Livy II, 24,8-25,1-6; D.H. VI, 29, 2-5.

\textsuperscript{490} Livy II, 9,6.

\textsuperscript{491} Musti 1992, 25-31.

\textsuperscript{492} For this treaty and its exact date, see Cornell 1995, 210-214.

\textsuperscript{493} Pol. III, 22,11-24,16.

\textsuperscript{494} See Radke 1961, 807-808. For a recent reflection on this view, see Van Royen 1992a, 437-451; *idem* 1992b, 33-36.
likely to be geographical in nature, rather than political or ethnic.\textsuperscript{495} If he is right, the annalistic references need to be reconsidered.

Another interesting approach to the credibility of references to an early Volscian presence has been proposed by Filippo Coarelli. In his view, they may indeed refer to early Volscian migrations. Coming from their homeland - which Coarelli locates in the heart of Sabine territory, bordering on Umbria - the Volscians would have taken the natural route from the east, via Tivoli.\textsuperscript{496} At a later stage they took the more southerly route, along the valley of the Liris. Instead of believing in a sudden large-scale invasion of the Latial plain, Coarelli suggests a gradual process of infiltration by small groups of mountain peoples in search of new territory.\textsuperscript{497}

Inconsistencies in Livy and Dionysius regarding the Volscian intrusion into Latium during the Regal period are considered a strong argument for dismissing the information they give as altogether unreliable.\textsuperscript{498} A clear example is the siege and capture of Velitrae - described as a Volscian city - during the reign of Ancus Martius.\textsuperscript{499} Dionysius' account of the capture of the town is not confirmed by any other direct reference and the Volscians then disappear entirely from the record for the next hundred years. It is therefore likely that the Volscians, with their notorious reputation, have been inserted to enliven the story of Ancus Martius who - as the successor of Servius Tullius - is confronted with many external problems.\textsuperscript{500}

Similar inconsistencies are observed in reports of the Volscian presence during the reign of Tarquinius Superbus. One example is the apparent lack of agreement between Livy and Dionysius on the Volscian identity of the city of Suessa Pometia.\textsuperscript{501} Another is Dionysius' claim that, after their defeat by Tarquinius, the supposedly Volscian inhabitants of Suessa Pometia sought the protection of the Latin community of Gabii.\textsuperscript{502} This is regarded in some quarters as extremely unlikely, and even as evidence to support a Latin identity for the captured city.

I would again suggest, however, that a more flexible approach should prevail in such cases. Although it is true that Dionysius does not directly connect Suessa Pometia with the Volscians - he calls the inhabitants \textit{Pometini} - he explicitly refers to their presence in the region. It is 'the country of the Volscians' that is repeatedly raided by Tarquinius' army after the capture of Suessa Pometia.\textsuperscript{504} On the second point (the unlikelihood of Volscians seeking shelter in the Latin town of Gabii) it should be noted that, at this early period, there are no hostilities reported between Latins and Volscians. The record rather implies that Latins and Volscians were living peacefully together. In fact, Gabii is the next target of Tarquinius' programme of conquest. Its capture is recorded by both Livy and Dionysius.

\textsuperscript{495} Musti 1992, 25-31. Cf. also Ampolo 1987, 120-121, who considers the 'Lazio dei Latini' a geographical area within which the Romans occupied a privileged position.

\textsuperscript{496} Coarelli 1990, 139. Coarelli suggests that the earliest recorded contacts of Volscians with Latium during the time of Ancus Martius and Tarquinius Superbus (which are generally rejected as fictitious) may have been memories of real infiltrations in this area.

\textsuperscript{497} Coarelli 1990, 140.

\textsuperscript{498} Van Royen 1992a, 438-441; \textit{idem} 1992b, 34.

\textsuperscript{499} D.H. III, 41.5.

\textsuperscript{500} But cf. Coarelli 1990, 139 on this point.

\textsuperscript{501} Van Royen 1992a; \textit{idem} 1992b.

\textsuperscript{502} D.H. IV, 50.2.

\textsuperscript{503} See Van Royen 1992a, n. 23.

\textsuperscript{504} D.H. IV, 52.3.
It is thus not unreasonable to suppose that the Volscians, until the moment Roman historians award them the role of official enemies of Rome, had been living peacefully in Latin communities amongst the Latin inhabitants. Their early presence may have been the result of a gradual process of infiltration, explicable in terms of transhumance contacts which seem to have been a regular phenomenon from the earliest times. Alternatively, one can equally imagine such early migrations as the result of a series of 'sacred springs' (veria sacra) - the ritual response to famine, overpopulation and need for larger territories. This custom may have allowed mountain peoples the chance, at a very early stage, to intermingle peacefully with the Latin population. It would also explain why, as early as the sixth century, some cities are identified as 'Volscian' without any reference to their seizure in a Volscian attack. In communities where Volscians had gradually come to outnumber their hosts, it would be fair to assume that they went on to obtain prominent or public positions. If so, cities like Antium, Ecestra and Pometia might well become labelled as 'Volscian'.

A possible argument in favour of the peaceful co-habitation of Volscians and Latins is offered by a passage in Livy. It describes a similar situation, though admittedly a hundred years later. In 423, the Samnites, who later took over the city, were admitted to a share in Capua and her fields by their Etruscan rulers.

Such stories may add credibility to Strabo's account of Volscians living autonomously in the various cities of Latium. They also accord with Livy's remark about Romans buying up grain from the Volscians as early as 508. This suggests that they had established themselves in a plain renowned for its grain production. If the Volscians had still been living in the mountains, they would have been, as Ogilvie aptly put it "a surprising quarter to seek grain from". Sixteen years later, in 492/491, a similar event is recorded. Rome is again in desperate need of grain. This time, however, they are officially at war with the whole Volscian "nation", and have to bypass enemy territory by importing their grain by sea from further south, from Cumae and Sicily.

The fifth century
The episode which is commonly considered the starting point for a sudden Volscian invasion of Latium is the epic battle between the Romans and the rebellious Latin cities, at Lake Regillus in 499/496. The Romans emerge victorious, but among the 29 rebel cities listed

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505 On the phenomenon of transhumance in ancient Italy, see E. Skydsgaard, Analecta Danici VII, 1974, 7-31 (with literature).
507 For the scholars who assume a gradual and peaceful Volscian infiltration into the Latin communities before the end of the sixth century, see n. 481.
508 Livy IV, 37,1-2.
509 For this suggestion, see Stibbe 1987, 9.
510 Strabo V, 3,2.
511 Livy II, 9,6.
512 Cf. Coarelli 1990, 142-143.
513 Ogilvie 1965, 257. See also Garsey 1988, 167-181, who believes in the authenticity of reports of emergency food supplies, arguing that food shortages were publicly recorded in the annales maximi, as were some of the measures taken to alleviate them; also Cornell 1995, 268, and Oakley 1997, 569.
514 Livy II, 34, 1-4.
515 Livy II, 21,3-4. For a commentary on the battle, see Ogilvie 1978, 283-289; 281-282 and 286, for the discussion concerning the exact date of the battle.
by Dionysius, Satricum is mentioned for the first time (see below).\textsuperscript{516} In his detailed account of the battle, Dionysius describes the active but futile role played by the Volscians at some length.\textsuperscript{517} The Volscian garrison at Antium sends reinforcements, but the promised assistance of other Volscian forces arrives too late.

In the period which follows, Rome is confronted with what seems to be a first organized revolt by the Volscians, in company with Rome’s allies, the Hernicians and Sabines. The Volscians however, are betrayed by the Latins.\textsuperscript{518} They are defeated and lose two of their most important cities to the Romans: in 495, their leading city Suessa Pometia is captured and its name completely disappears from the historical record (see below), while in 494 the town of Velitrape is seized and made a Roman colony.\textsuperscript{519} In 493, the peace treaty known as the \textit{Foedus Cassianum} is made with the Latin peoples.\textsuperscript{520} In the same year other Volscian cities, such as Longula, Polusca and Corioli, fall to the Romans.\textsuperscript{521}

In the next episode, the Roman advance into Latium suffers a serious setback, when the Volscians - led by the Roman general, Gnaeus Marcius Coriolanus, and by the Volscian leader Attius Tullius of Antium - march on Rome, capturing many cities from the Romans on the way. Both Livy and Dionysius report the legendary march of Coriolanus and his Volscians - each embellishing it with romantic details - but Livy gives a shorter list of captured cities and refers to one campaign instead of the two reported by Dionysius. He also gives a different sequence of captured cities.\textsuperscript{522} According to Livy, Circeii, Satricum, Longula, Polusca, Corioli and Lavinium are taken and, in the Latin area, Corbio, Vetelia(?), Trebiun, Labici and Pedum. In Dionysius’ account Circeii is again the first town to be taken. However, it is followed by Tolerium, Bola, Labici, Pedum, Corbio, Corioli (?) and Bovillae. In a second march the towns of Longula, Satricum, Setia, Pollusca, Lavinium (?), Mugilla (?) and Corioli (?) are seized.

The legend of Coriolanus ends with his withdrawal from Rome and her territory - persuaded by his wife and mother - after which he is tried for treason by the disappointed Volscians and, according to Dionysius, stoned to death.\textsuperscript{523}

The story of Coriolanus’ campaign is generally believed to contain a core of truth\textsuperscript{524}. Thereafter the accounts continue to present a pattern of almost annual raids on Latin territory,

\begin{itemize}
\item \textsuperscript{516} D.H. V, 61,3. The reliability of the list is, however, generally disputed. See Alföldi 1965, 13; Ogilvie 1965, 280-281; but also Stibbe 1987, 13 and Cornell 1995, 298. An important objection against the authenticity of the list is the appearance of the names of Norma and Setia (Sezze), cities which at that time did not yet exist, while important cities such as Pometia, Antium, Signia and Terracina are absent.
\item \textsuperscript{517} D.H. VI, 3,2.
\item \textsuperscript{518} Livy II, 22,3-5; D.H. VI, 25,3-4.
\item \textsuperscript{519} On Suessa Pometia: Livy II, 25,1-6; D.H. VI, 29, 2-5; on Veletrei: Livy II, 31,4; D.H. VI, 43,1.
\item \textsuperscript{520} D.H. VI, 95,1-4; Livy II, 33, 3-4. See Ampolo 1990, 122-126 (with references), for an extensive discussion of the treaty. Cornell 1995, 299-301 argues that the treaty was a response to the external threat of invading Volscians and Aequians. In 486, a similar peace treaty was struck between the Romans and the Hernicians under the consul Purius Cassius, enhancing the position of Rome (D.H. VIII, 68,2).
\item \textsuperscript{521} Livy II, 33,4-9; D.H. VI, 91,2-94,3.
\item \textsuperscript{522} Livy II, 39,1-5; D.H. VIII, 14-36. See Ogilvie 1965, 331-332, who believes that Livy has conflated the two campaigns into one for dramatic reasons, reversing the sequence by narrating the second campaign before the first.
\item \textsuperscript{523} D.H. VIII, 59,1.
\item \textsuperscript{524} Alföldi 1965, 371; Cornell 1995, 307. Cornell argues that though the chronology of the events may be insecure, the story probably reflects a genuine popular memory of events that took place in the early years of the fifth century.
\end{itemize}
either by Volscian or Aequian groups or by both, and of counter-raids by the Romans. The fighting seem to diminish only after the middle of the fifth century. In most cases victory goes to the Romans, but defeats are also recorded: in 484\(^{525}\), in 478\(^{526}\) and in 471\(^{527}\) at the hands of the Volscians; in 469\(^{528}\) at those of the Aequians and in 464\(^{529}\) against their combined forces.

In 467, Antium is made a Roman colony, after which the centre of the struggle seems to shift to a strategic point in the Alban Hills, a plateau called Mons Algidus or Algidum.\(^{530}\) This plateau controlled one of the most important Roman roads to the south, the Via Latina, as well as the east-west links between the Volscians and their allies, the Aequians. At the same time it represented the only possible route between the Romans and their allies, the Hernicians. For many years the Romans and the Aequians fought for control of the plateau. In 465, Mons Algidus enters the historical record for the first time with a military defeat of the Aequians.\(^{531}\) It then appears on eight other occasions, up until 418, all in connection with battles against the Aequians. For two of these, in 449 and 431, the active presence of Volscians is also reported. Only at the end of the fifth century do the Romans finally succeed in separating the Volscians from the Aequians and breaking through to the south. In 406 they conquer Terracina, thus isolating the Volscian towns in the plain.\(^{532}\) In 396, the Volscians sign a peace treaty with the Rome.\(^{533}\)

There seems to be general agreement on the reliability of the record as far as most of the campaigns in the fifth century are concerned. The frequent references to Roman defeats and indecisive battles are taken as evidence in its favour. Even Alföldi considered it highly unlikely that the annalists would invent such set-backs, and he therefore accepted the fact of annual Volscian raids as a given.\(^{534}\) A similar standpoint is taken by Cornell, who also notes a rather low percentage of Roman triumphs in the fifth century when compared to earlier and later periods.\(^{535}\) In his view, this is an unlikely pattern for an annalist to invent and implies that the dismal memory of the fifth century, as a black page in the heroic past, could not be erased.

The fourth century
The story of the Volscians would have ended with the treaty between the Romans and Volscians in 396, had it not been for the approaching army of Gauls and the sack of Rome in 390.

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525 D.H. VIII, 84.1-86.2.
526 D.H. IX, 16.1.4.; 17.4.5.; 18.4.
527 Livy II, 58-60; D.H. IX 50.1-7; 53.5.
528 Livy II, 63, 3; D.H. IX, 56.6.
529 Livy III, 4.2-6; D.H. IX, 62.2-3.
531 Livy III, 2.12.
532 Livy IV, 59, 1-11.
533 Livy V, 23.12.
534 Alföldi 1965, 369.
In 389, the Volscians appear again when they begin a revolt together with the Latins and the Hernicians, who had been on friendly terms with the Romans since the battle at Lake Regillus in 496. They exploit the weakening grip of the Romans, who are preoccupied with the after-effects of the Gallic invasion. The centre of struggle again shifts to the Pompitine plain. The military tribune Marcus Furius Camillus is appointed to resolve the problems. He defeats the Volscians in their camp, not far from Lanuvium - ad Maecium - and lays waste all their territory, forcing them to surrender 'after seventy years of warfare'.

The period covering the first half of the fourth century is relevant to the present study because of the frequent references made to Satricum, which features quite prominently in accounts of military actions in the Pompitine area. The town is repeatedly taken and retaken. In 386 it is captured by Marcus Furius Camillus (for the first time). In 384 it is made a colony and two thousand Roman citizens are dispatched to occupy it. In 381, the town is reconquered by the Volscians with the help of the Praenestines, after which it is probably retaken by Camillus, in a second major victory over the Volscians. In 377, a combined army of Latins and Volscians is defeated near Satricum. The survivors flee to Antium which, after several days, surrenders to the Romans. The Latins, furious at this surrender, utterly destroy Satricum except for the temple of Mater Matuta, from which they are kept away by an awesome voice - a vox horrenda - threatening them with disaster. Satricum reappears in 348, when Antium establishes a colony to rebuild the destroyed town. In 346 it is destroyed for a second time, this time by a Roman army sent to the area in reaction to the military activity of the Volscians of Antium, who had concentrated their forces around Satricum. Again, the temple of Mater Matuta is spared.

The Volscians reappear for the last time in 341, again on a massive scale. Privernum is reported to be in revolt, while a Volscian army led by the Antiates is said to have set up camp at Satricum. The Romans begin by capturing Privernum. The victorious army then moves on to Satricum where a heavy battle is recorded. This ends indecisively and the Volscians flee to Antium.

In his recently published commentary on Livy's book VI, Oakley admits that the various strands of Roman foreign policy in the period 389-367 are hard to understand, especially her relationship with the Volscians and Latins. The famous battle ad Maecium, where Camillus defeats the Volscians, is usually considered decisive for Roman penetration of the Pompitine area. However, there has been much discussion about the credibility that can be attached to reports of this battle and to the whole annalistic account for this period. According
to the extremely critical view put forward by Beloch and his followers, Rome had at that time achieved very little and the whole Volscian episode which begins with Camillus' famous victory *ad Maecium* must have been invented.\(^{547}\) Others perceive a certain internal consistency in the narrative, which they see as confirming its basic credibility.\(^{548}\) An active Roman presence in the Pomptine area is thought to be plausible in view of the nature of Roman policy, which was aimed at obtaining new land on which to resettle impoverished Romans.\(^{549}\) Evidence in support of such a policy is provided by Livy's references to disputes about land distribution in 388 and 387\(^{550}\) and to Volscian attacks on settlers in 386.\(^{551}\)

With regard to the various battles reported around Satricum in this period, it is, as Oakley says, 'entirely plausible' that a city situated in an area disputed by Romans, Latins and Volscians would have changed hands many times.\(^{552}\) On the other hand, he considers it improbable that Satricum would have been deserted between 377 and 348.\(^{553}\) The two references to the destruction of the town - except for its main temple - in 377 and 346, he sees as an obvious doublet which is difficult to disentangle.\(^{554}\) The earlier account - in view of the bizarre anecdote of a *vox horrenda* - he considers less likely to be an invention.\(^{555}\)

### The Volscians and their cities in the Pomptine plain

From their very first appearance in historiography, the Volscians are associated with specific cities, five of which feature prominently in the accounts. These are Velitrae, Antium, Ecetra, Pometia and Satricum. As we have seen, the references to these cities strongly suggest a Volscian presence in the Pomptine plain as early as the last quarter of the sixth century.

The first three cities, Velitrae, Antium and Ecetra, appear with some regularity throughout the entire 'Volscian' period. However, the city of Pometia occupies an important position only during the earliest phase of Volscian history. As will be shown below, it appears to have been replaced by Satricum.

### Velitrae

The town of Velitrae (modern Velletri) is situated on a mountain-ridge with natural defences, one of the southeastern spurs of the Alban Hills. It dominated the southern end of the pass between the Alban Hills and the Lepini Mountains and as such must have been of crucial strategic importance to both the Volscians and the Romans.\(^{556}\) Velitrae is the first town in Latium which is mentioned in relation to the Volscians. Dionysius

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\(^{547}\) Beloch 1926, 314-320; Alföldi 1965, 371, 374.

\(^{548}\) Oakley 1997, 351. In his view, it assumes too complex a process of fabrication to regard all the recorded battles against the Volscians as doublets of previous battles (n. 73). See also Cornell 1989, 310 and *idem* 1995, 318-319, who takes a firm stand against the 'anti-Roman strain' in modern scholarship.

\(^{549}\) Cornell 1989, 316-317; Oakley 1997, 352.

\(^{550}\) Livy VI, 5,1-5; 6,1.

\(^{551}\) Livy VI. 6,4-9,2.

\(^{552}\) Oakley 1997, 456.

\(^{553}\) Oakley 1997, 456.

\(^{554}\) Oakley 1997, 456-457; but cf. 352, n. 73, where he states that Satricum could well have been captured on both occasions.

\(^{555}\) Thus De Santis [1907-1960: ii.247-8].

\(^{556}\) On Velitrae, see Radke 1958, in *RE*, cc. 2406-2411.
reports how the town was captured from them as early as the reign of Ancus Martius.\textsuperscript{557} This account is generally regarded as unreliable (see above). It is not confirmed by any other reference and the Volscians disappear from the literary record for the next hundred years. Even so, it can be assumed that Volscians were living in Velitrae around the late sixth or early fifth centuries. In 494, having been defeated in a battle with the Romans, the Volscians flee to Velitrae, which is subsequently captured and made a Roman colony. The Volscians are deprived of their land.\textsuperscript{558} In 492/491 the colony of Velitrae is reportedly reinforced by more Roman colonists but Dionysius still refers to Velitrae as an important Volscian town.\textsuperscript{559} This reference may be indicative of the ambivalent nature of the town and the problematic nature of its relationship with Rome. In 401 Velitrae is colonized again,\textsuperscript{560} while later (in the first half of the fourth century) repeated defections from Rome are reported.\textsuperscript{561} In 385, for instance, the Roman settlers of Velitrae (and Circeii) send reinforcements to a combined army of Volscians, Latins and Hernicians.\textsuperscript{562} These accounts suggest that the Volscian presence remained strong, implying the peaceful co-habitation of Romans and Volscians in one town. It is even imaginable that native Volscians had seized power again.\textsuperscript{563} A more or less identical situation is recorded in the case of Antium (see below).

Evidence that may support this idea is further provided by the famous inscription on a bronze plate, known as the \textit{tabula Veliterna}. Although there is some discussion about its exact date, the inscription is generally accepted as Volscian. Of particular interest in relation to the suggested Volscian domination of the town, is the reference in the inscription to official magistrates - \textit{meddices} - which are Oscan in origin.\textsuperscript{564}

So far there seems to be no further archaeological evidence in support of the presumed Volscian occupation of the town, although a link is suggested by the partial re-decoration of the temple of Stimmate in the first quarter of the fifth century.\textsuperscript{565}

\textbf{Antium}

Antium may be regarded as the principal Volscian city.\textsuperscript{566} This is clearly stated by Dionysius on various occasions and is also evident from its frequent appearance in the literary sources. The town is referred to on 18 occasions, all directly associated with Volscians. It is one of the first cities to be described as Volscian and one of the last Volscian cities to bow to Rome (in 338, when it becomes a Roman colony).\textsuperscript{567} Antium can be considered the epicentre of Volscian revolt, most clearly during the preparations for the Volscian offensive of 489/488, but also in later uprisings. It is hardly surprising that the Romans focussed their
initial attention on the town, given its strategic position and its function as a seaport.

Antium is repeatedly referred to as being too strong to be captured in an assault. This is archaeologically confirmed by its fortifications, which consist of an *agger-vallum* (see Ch. 3.2). It took at least 18 years for the Romans to take the town, but even then it remained true to its Volscian heritage. In fact Antium might even serve as an *exemplum* for the peaceful co-habitation of different ethnic groups. Both Livy and Dionysius describe how the Roman colonists of 469 are supplemented by others, among whom are Latins, Hemicians and, most importantly, native Antiates or Volsciens.\(^{568}\) The Volscians, however, seem to have preserved their majority or at least their powerful positions, since in 459 the whole population, Roman colonists included, defect to the Volscian army. Although Rome succeeds in defeating the Volsciens in the vicinity of the town, Antium can not yet be considered secure and will reappear as the centre of trouble.\(^{569}\)

During the final decade of the fifth century Volscian pressure on southern Latium is again mounting. After the defeat of the Aequians and the loss of the Algidus pass, the Volsciens try to force their way into the area from the south.

The last flourish of Volscian resistance is once more centred in and around Antium. The town is apparently Volscian again, as may be deduced from Livy's reference to Antium as 'the capital of the Volsciens'.\(^{570}\) The history of Antium in the fourth century is closely related to that of Satricum. The cities are repeatedly mentioned in one breath and it seems that Satricum functioned as an outpost of Antium.

**Ecetra**

Even though the city of Ecetra occurs only five times in the accounts of Livy and Dionysius, it seems to have been a place of considerable importance. It must have existed for a long time, no doubt due to its impregnable position. Dionysius describes how the Roman army try to provoke the Volsciens of Ecetra into a fight in 459. The place is referred to as 'the most important city of the Volsciens at that time and the most strongly situated'.\(^{571}\) Tarquinius Superbus himself seems to have been willing to make a peace treaty with the town, rather than fight a battle. In fact there is no record of Ecetra being captured by the Romans, nor even of a military attack. Though considered troublesome, it was probably not seen as worth the effort of a long siege nor of an attack which would have certainly resulted in heavy losses. As far as we know, Ecetra was not of direct strategic importance to the Romans.

The recorded importance of the city was therefore probably based on its impregnability and on the security it could thus provide. In 489, for example, it is chosen to host the general assembly of all Volscian cities, which decides to wage war on the Romans.\(^{572}\) On another occasion, during the campaign of Coriolanus, the collected booty from Satricum and Longula is carried away to Ecetra.\(^{573}\) After 378, the city disappears from the record without ever having become a Roman colony.

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\(^{568}\) Livy III, 1,7; D.H. IX, 59,2. Cf. the commentary by Ogilv y 1965, 393-394, who considers the reference to Volscian colonists a mistake by Livy. However, a similar situation is recorded in 338, when Antium is made a Roman colony for the second time and the Antiates are themselves permitted to enrol as colonists (Livy VIII, 14,8).

\(^{569}\) Livy II, 23, 1-7.

\(^{570}\) Livy VI, 9,1: *caput Volscorum*.

\(^{571}\) D.H. X, 21, 3.

\(^{572}\) D.H. VIII, 4,4.

\(^{573}\) D.H. VIII, 36, 2.
There is much discussion about the location of Ecetra.\textsuperscript{574} Despite various suggestions, no consensus has yet been reached.

The annalistic references give the impression that Ecetra was a stronghold, situated on the edge of mountains (probably the Alban Hills) close to Algidus.\textsuperscript{575} In 378, for example, the Romans send out two armies, one towards these mountains and the other towards Antium on the coast.\textsuperscript{576} It is also likely that the city lay somewhere in the vicinity of Suessa Pometia/Satricum (see below). After the capture of Suessa Pometia in 495, the inhabitants of Ecetra, alarmed for their own prospects, ask the Romans for a peace treaty.\textsuperscript{577} This would seem to imply that the city was not far away. A comparable interpretation can be attached to the removal of the booty from Satricum and Longula to Ecetra; this would make little sense if it were not near at hand.

On only one other occasion does Livy offer more specific information on the location of the city. This is when he reports a battle between the Volscians and the Romans fought in 404/5 in the area between Ferentium and Ecetra. Based on this reference, Coarelli proposes the area of the lower Sacco, in the neighbourhood of Supino and Morolo, as the location of Ecetra.\textsuperscript{578} In the same passage, Livy describes the siege, capture and destruction of the Volscian city of Artena. This site, upon which the medieval town of Montefortino may have been built, has often been proposed as a candidate for ancient Ecetra.\textsuperscript{579} Although its position as an invincible stronghold more or less corresponds to the image of Ecetra, the proposal nevertheless seems untenable, since Ecetra is still in existence in 378 when the Roman army is sent there to provoke the Volscians to a fight.\textsuperscript{580}

**Pometia**

The city of Pometia occupies an important position only during the earliest phase of Volscian history. There is no disagreement about the existence of the town, which is variously referred to as Suessa, Pometia or Suessa Pometia, nor is there any doubt about its importance to Rome. Both Livy and Dionysios mention it in relation to Rome's foreign policy during the reign of Tarquinius Superbus, as well as during the early Republic. One can therefore assume that the town occupied a strategic position in the centre of the Pomptine district.\textsuperscript{581} Indeed, it probably provided the Pomptine region with its name: *ager Pomptinus*.\textsuperscript{582} It must have been fundamental to Tarquinius' policy to gain control of this powerful city and its legendary riches. The prestige he would have obtained from its capture would have greatly enhanced his position in Rome.

As recorded above, Pometia reappears three times after its capture by Tarquinius, in 503,

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\textsuperscript{574} On Ecetra see Ashby and Pfeiffer, *Suppl. PBSR* I, 1905, 87-107; Hülsen, *RE* V, c. 1907. See n. 115 on the identification.

\textsuperscript{575} Cf. Ogilvie 1965, 302.

\textsuperscript{576} Livy VI, 31.5.

\textsuperscript{577} Livy II, 25.6.

\textsuperscript{578} Coarelli 1990, 135-136.


\textsuperscript{580} Livy VI, 31.5.

\textsuperscript{581} Stibbe 1987, 10.

\textsuperscript{582} See Ogilvie 1965, 164 (with literature).
in 502 and in 495.\textsuperscript{583} The account of the events of 503 is, however, disputed and often regarded as a doublet of the 495 story.\textsuperscript{584}

A surprising element in the passage for 503, which may be evidence of its unreliability, is the key-role given to the Aurunci (see above). It is considered highly unlikely that the Aurunci, who occupied the region between the Liris and the Volturnus, would have interfered in the affairs of Cora and Pometia.\textsuperscript{585} Their presence in this area at such an early date seems improbable, whereas in 495 it would be much more plausible.\textsuperscript{586} As a possible substitute for the Aurunci, the Volsci have been suggested. The hatred of the Aurunci for the Romans, as described by Livy,\textsuperscript{587} becomes easier to understand if we see them as Volsci, whose city Pometia had been recently captured by Tarquinius Superbus.\textsuperscript{588}

The mention of the Aurunci, however, is considered by Coarelli as evidence in support of the view that the Volsci were not yet present in southern Latium, at least not in large numbers. The double name of Suessa Pometia, consisting as it does of a Latin element - \textit{Pometia} - and a probable Aurunca name - \textit{Suessa} - would thus indicate an Aurunca identity for the town.\textsuperscript{589}

On the other hand, it is only Livy who describes the war of 503. In Dionysius’ account no mention is made of a war against either Pometia or the Aurunci. Instead, he refers to military activity under the same consuls, but in the Sabine area and against the Sabines.\textsuperscript{590}

In order to explain the doublet in Livy, it has been suggested that something may have occurred with regard to the city of Pometia which Livy has interpreted as negative for the Romans, a change of government for example.\textsuperscript{591} Pometia is certainly described as Volscian again in 495. The town, most probably, had opened its doors somewhere at the end of the sixth century to the surrounding peoples, among whom were the Volsci.\textsuperscript{592} It is quite possible that the Romans did take the field against Pometia in 502, as Livy reports,\textsuperscript{593} but that the Volsci retained control of the city after the Roman defeat.

\begin{footnotesize}
\textsuperscript{583} Livy II, 16,8; II, 17.
\textsuperscript{584} Cf. Loeb commentary; Ogilvie 1965, 276; Salmon 1967, 29, n. 3; Stibbe 1987, 11-12. The discussion surrounding the reliability of these accounts centres, amongst other things, on the consignment of three hundred hostages to the Romans, referred to in identical terms in both 503 and 495. The event has no coherent place in the earlier episode, whereas in 495 it stands in the logical context of a successful surprise attack by the Romans. In 495, the taking of hostages is followed by the political act of their public execution (D.H. VI, 30,1).
\textsuperscript{585} See Ogilvie 1965, 276.
\textsuperscript{586} See Stibbe 1987, 12 and n. 37. The Aurunci, feeling threatened after the defeat of the Volsci and the sack of Pometia in 495, advance with an army as far as Aricia, where they are defeated by the Romans, see Livy II, 26,4-6; D.H. VI, 32,1.
\textsuperscript{587} Livy II, 17,2: \textit{Aurunci} ......\textit{inaepta bili odio}.
\textsuperscript{588} Ogilvie 1965, 276; see also Stibbe 1985, 14.
\textsuperscript{589} Coarelli 1990, 141. See also Ogilvie 1965, 164. He considers the double name an error of the part of the annalists.
\textsuperscript{590} D.H. 5, 49.
\textsuperscript{591} See Stibbe 1987, 12.
\textsuperscript{592} Stibbe 1987, 12.
\textsuperscript{593} Livy II, 17.
\end{footnotesize}
Pometia identical with Satricum?
A question which has long preoccupied many scholars is that of the original location of Pometia. Various suggestions have been made, among which are sites near modern Cisterna di Latina\(^{594}\), Caracupa\(^{595}\) and Casale di Sessano\(^{596}\). The most recent and perhaps the most plausible theory identifies Pometia with the ancient city of Satricum (modern Borgo Le Ferriere).\(^{597}\) Stibbe suggests that Pometia, which appears for the last time in the literary sources in 495 when it is sacked by the Romans, was renamed Satricum, probably by the Volscians who recaptured the town in 488.\(^{598}\) In Stibbe's view, it is highly unlikely that a city as important as the Pometia described by Dionysius on the occasion of its capture in 495\(^{599}\), could disappear from the scene with no reference in the sources to its final destruction.\(^{600}\) Neither Livy nor Dionysius mention any such thing, recounting only the capture of Pometia and the subsequent collection of booty. We should therefore assume that the town continued to exist.\(^{601}\)

The theory of a change of name accords well with the absence of any reference to Satricum in the historical account of the regal period. The omission is highly surprising in the light of the rich archaeological record documented for Satricum. This reflects a rich and well-organized city that can certainly withstand comparison with descriptions of Pometia.\(^{602}\) A town with such a high degree of urban development as that discovered in Satricum, obviously the result of its central and strategic position, must have been important enough to be remembered by later annalists.

The renaming of a town is not an unusual event in the context of captured towns or founding colonies. On such occasions both established and new towns are given names which echo places in the home territory. A Volscian example of the process is the renaming of the city of Tarracina, which becomes Anxur. As far as the name of Satricum is concerned, there is evidence to suggest the existence of another Satricum, situated in the Volscian homeland.\(^{603}\)

This theory has many adherents and can almost claim general acceptance.\(^{604}\) Some scholars dispute it, however. Their objections are mainly based on two separate references to the name of Satricum before 495. In the first, Satricum is mentioned together with Pometia in Pliny's list of the 30 communities participating in the Feriae Latinae on the Alban Mount.\(^{605}\) In the second, the name of Satricum appears in Dionysius' list of the League of Aricia. This list contains the names of the 29 cities which revolt against Rome in 499, several

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\(^{595}\) Ogilvie 1965, 164.

\(^{596}\) G. De Santis, Storia di Roma I, 1907, 172 n. 2.

\(^{597}\) Stibbe 1985, 22-35; idem 1987, 7-16.

\(^{598}\) Stibbe 1987, 13-14. On the Volscian character of the name Satricum and other toponymes, like Polusca, Mutesca, Arpinum and Arpi, see Coarelli 1990, 138-139.

\(^{599}\) See D.H. VI, 29,4: "the leader of the nation, far surpassing any city in the region in size, number of inhabitants, fame and riches" (Loeb transl.).

\(^{600}\) Stibbe 1987, 13.

\(^{601}\) Livy II, 25,5; D.H. VI, 29,5.

\(^{602}\) Cf. for instance the description of Dionysius of Pometia (D.H. VI, 29,4).

\(^{603}\) Cf. Coarelli 1990, 149.

\(^{604}\) See Livy IX, 12,5; XXVI, 33, 10, for the town of Satricum situated in the middle Liris valley; also, Cic. Q.fr. III, 1,4.

\(^{605}\) For a reaction on the identification, see Coarelli 1990, 149; Cornell 1995, 210; also, Waarsenburg 1995a, 100-101 with n. 101.

\(^{606}\) Pliny, Nat.Hist. III, 68-70.
years before the attack on Pometia.\textsuperscript{606} These arguments are not regarded as very convincing, however, since the reliability of both lists is generally disputed.\textsuperscript{607} For example, as mentioned above, Dionysius' list of the Latin League contains the names of cities (Norma and Setia (Sezze)) which did not yet exist at that time, while important cities (such as Pometia, Antium and Terracina) are missing. Moreover, on the much shorter and earlier list of Cato, which also records the members of the Latin League and is regarded as much more reliable, other names occur, including that of Pometia. The name of Satricum is absent.\textsuperscript{608}

Entering the written history, however, did not mean that the town (under its new name of Satricum) was destined to play a prominent role in general or in even Volscian history, at least not in the fifth century. As we have seen, the name of the town occurs only three times in the record for this period and of these only the last, during the campaign of Coriolanus, is considered reliable. Satricum then disappears once more from the stage. Having been 'hidden' during its early existence under another name, it will now remain in the background for quite other reasons. Yet, as has been shown, its continuity is archaeologically demonstrated and confirmed beyond doubt by its reappearance in the historiography of the fourth century.

The continued existence of Satricum in the 5th and 4th centuries
The fact that Satricum is mentioned only once during the fifth century provides an argument for those who doubt the continuity of the town. The general view is that it was unable to recover from the Volscian assault which led to its capture in 488. In a period of widespread political unrest Satricum/Pometia seems to have lost its former glory and status almost overnight.

An explanation for the remarkable absence of the city's name in the fifth century narrative is not too difficult to give. Without doubt the town still existed, as has been demonstrated above, while the evidence of the written sources is equally conclusive about its existence in the fourth century (see below). Why then only the single reference, in 488?

As was made clear in the introduction to this chapter, the Roman annalists were often writing from a purely Roman point of view. Settlements and peoples were only mentioned when they were relevant to Rome's struggle for hegemony. During the fifth century, therefore, and in marked contrast to the preceding 'Pometia' period, Satricum may simply have lost its relevance to Rome. After the legendary campaign of Coriolanus, the centre of the struggle shifted towards the Aequians, who threatened Rome from the north, and to another crucial strategic point, the Algidus pass (see above).

It is only at the beginning of the fourth century, during the final mass revolt against Roman expansion, that the city of Satricum reappears. Its name occurs eight times in the fourth century accounts and always in direct connection with Volscian military activity. Its history is closely linked to that of the city of Antium. Indeed, it has been suggested that the town had become little more than a fortified outpost of Antium, but there are good reasons to doubt

\textsuperscript{606} D.H. V, 61.3.
\textsuperscript{607} Cf. Alföldi 1965, 11-13, who regards all lists concerning the Latin alliance and composed by historians of the Late Republic as "superficial compilations". His opinion is shared by many others. Cf. for instance Versnel 1980, 103 and n. 11 with regard to the list of Pliny; cf. also Ogilvie 1965, 280-281, on the list of Dionysius.
\textsuperscript{608} Cato, \textit{Origines} fr. 58; See Alföldi 1965, 13; Ogilvie 1965, 280-281; Stibbe 1987, 13.
this.\textsuperscript{609} Livy clearly implies that Satricum was a town on several occasions. He speaks, for example, of the walls, the \textit{moenia}, of Satricum which were scaled with ladders during the siege of 386,\textsuperscript{610} and referred to again, as a temporary protection for fleeing Volscians, in 346.\textsuperscript{611} When the Latins destroy Satricum in 377, Livy is quite specific in his reference to sacred and secular buildings surrounding the old temple of Mater Matuta.\textsuperscript{612} And, in 348, the town is apparently important enough to be rebuilt by the Volscians of Antium.\textsuperscript{613}

Despite this, we may safely assume that Satricum was much smaller and less strongly fortified than Antium. This distinction probably holds for the entire existence of the two towns. The difference between the fortifications of Antium and Satricum in 386 is explicitly referred to by Livy. While the walls of Satricum are quite easily taken with scaling-ladders (see above),\textsuperscript{614} those of Antium are regarded as virtually impregnable. Livy states that the city could only be taken with help of artillery and siege-engines.\textsuperscript{615}

**Satricum: a Volscian or a Latin town?**

If we accept the theory that Pometia and Satricum are one and the same place, then Satricum must have already been Volscian during the late Regal period or, at least, have had a mixed population of Latins and Volscians. The accounts of the Volscian advance in the area, and more specifically of the capture of Satricum, appear to confirm the town's Volscian identity. It is, for example, striking to note that while both Livy and Dionysius mention the capture of Satricum in 488, neither refer to the town being razed or to the population being killed or sold into slavery. This is in itself surprising, given the outcome of comparable situations (see below), and may be understood in terms of an existing, structural, Volscian presence in the town. Situated in the heart of Volscian territory, between the Volscian cities of Antium and Ecetra, and (if identified with Pometia) with a long history of Volscian involvement, Satricum was probably considered a Volscian town. Since, as we have seen, Pometia had been captured from the Volscians in 495, it is fair to assume that Satricum/Pometia simply changed hands in 488.\textsuperscript{616}

Furthermore, Livy explicitly states that Satricum, Longula, Polusca and Corioli, towns which the Romans had recently acquired from the Volscians - "novella haec Romanis oppida" -, are similarly threatened.\textsuperscript{617} He is obviously referring here to the Roman victories of 493. It may be noted, however, that two years earlier, in 495, Livy reports the capture of

\textsuperscript{609} For this suggestion, see Stibbe in Gnade 1992a, 452.

\textsuperscript{610} Livy VI, 8,10: \textit{... ingenti militum alacriitate moenia undique adgressus scalis oppidum cepit.}

\textsuperscript{611} Livy VII, 27,7: \textit{Volsci, ferocior ad rebellandum quam ad bellandum gens, certamine victi fuga effusa Satrici moenia petunt.}

\textsuperscript{612} Livy VI, 33, 4-5: \textit{... nec aliud tectum eius superfuit urbis, cum facies pariter sacrís profanís inicerent, quam Matris Matutae templum.}

\textsuperscript{613} Livy VII, 27,2.

\textsuperscript{614} Livy VI, 8,1-10; and again in 346, Livy VII, 27, 6-9.

\textsuperscript{615} Livy VI, 9,1-3: \textit{... Sed quia misi magna apparatu, tormentis machinisque, tam valida urbs capi non poterat, ...}

\textsuperscript{616} A similar situation concerns the capture of Circeii in 488. In Livy the Roman colonists are simply driven out, after which the 'liberated' town is handed over to the Volscians (Livy II, 39,2). In the slightly different version of events related by Dionysius, the Romans colonists, who are said to have intermingled with the native inhabitants, surrender the town to the Volscians and are allowed to stay (D.H. VIII, 14, 1-2).

\textsuperscript{617} Livy II, 39,3.
Pometia, not Satricum. He thereby reveals his own confusion with regard to the name of the town.\textsuperscript{618}

It seems that Volscian policy was significantly less harsh inside their 'homeland' than outside it, a point which supports assumptions of an earlier Volscian 'identity' for some of the captured towns.\textsuperscript{619} Places like Tolerium, Labici, Pedum and Corbio, which were located outside Volscian territory in the eastern part of Latium, were completely destroyed upon capture by the Volscians and their inhabitants either killed or sold as slaves.\textsuperscript{620} The same fate was shared by Bola and Bovillae.\textsuperscript{621}

With regard to the composition of the population of Satricum during the fifth and fourth centuries, we may safely assume that it consisted predominantly of Volscians, despite the fact that the annalists nowhere refer to the inhabitants as Volscians nor to Satricum as a Volscian city. It is true that in the account of its capture by Coriolanus in 488 there is no mention of Volscians being settling in the town. But if Volscians were already an established part of the scene, as suggested above, that would clearly not have been necessary.

Further support for the early Volscian identity of Satricum is offered by its close relationship with the Volscian city of Antium, which was situated no more than 5 miles away. The combined ager of the two towns undeniably acts as the stage for various confrontations between Volscians and Romans during the fourth century. And finally, as conclusive evidence, there are the events of 377. In that year, according to Livy, the Latin allies of the Volscians destroy Satricum in a punitive strike against those Volscians whom they consider traitors.\textsuperscript{622}

Conclusions on the Volscian episode in the sources

This excursion into the Volscian role in the historiography, especially as regards Volscian cities, has hopefully provided a useful background to the archaeological remains in Satricum. As was mentioned at the start of this chapter, recent debate on the Volscians has focussed primarily on the exact moment of their arrival in the coastal plain and on the nature of their presence there. The idea of individual groups of immigrants, separately penetrating and settling the various Latin communities is, in my opinion, the most plausible. Moreover, it accords neatly with the recorded presence of Volscians in the towns listed above. These are consistently reported as in Volscian hands, long before the alleged mass invasion of the plains.

This first generation of Volscians might be best understood as mountain peoples of indistinct ethnic background. By peacefully living among the Latins they would have unwittingly prepared the way for the much larger scale incursions of the fifth century. With Rome itself submerged in social 'unrest, famines and pestilences', this later 'invasion' would have been seen as a threat to the privileged position of Rome within the Latial area. As such, the newcomers would have very likely been made the 'enemies' and endowed with their specific image.\textsuperscript{623} Indeed, as the 'others' living amongst the Latin kin of the Romans, it would be

\textsuperscript{618} See Stibbe 1987, 13-14.
\textsuperscript{619} Cf. van Royen 1992a, 450.
\textsuperscript{620} D.H. VIII, 17,4-7; 19,1-4.
\textsuperscript{621} D.H. VIII 18,1-4; 20,1-2.
\textsuperscript{622} Livy VI, 33, 1-6.
\textsuperscript{623} Cf. Dench 1995, 22-23, on the creation of stereotypes of one group by another in tension or conflict situations.
surprising if Rome had not projected upon them the role of active aggressors.

Land and the grain it produced were clearly the main reason for military conflict. This is illustrated by the many references to pillage (by both Romans and Volscians) on Volscian and Latin fields. It is also implicit in the report of the whole public grain supply being stored for safety in the *arx* of the Volscian town of Artena.\(^624\) The Pomptine district, or *ager Pomptinus*, was of primary importance for the *frumentationes*.\(^625\)

From the Roman point of view, the Volscian presence constituted a great danger to their own grain supplies from this area.\(^626\) Given the enormous numbers of Volscians, about which the annalists are quite explicit, the Roman reaction seems quite a logical one. In some battles, such as the encounter between the Romans and a combined force of Volscians and Aequians in the year 462, many thousands of Volscians participate.\(^627\) Similar numbers are recorded on other occasions. Though undoubtedly exaggerated to enliven the accounts, these numbers serve to illustrate the Roman perception of the Pomptine plain as crowded with Volscians.

Perhaps in order to lend credibility to their portrayal of Rome’s opponents, Roman writers often include characteristics which give the impression of fear or even of barely suppressed admiration on their part. In the case of the Volscians, it is their ability to repeatedly mobilize new manpower to resist Rome, in spite of many defeats, which particularly impresses Livy.\(^628\) However, since this convention is an intrinsic part of the literature of the ultimately victorious side, such elaborations should probably be seen as literary embellishments.

It is not too far-fetched to imagine a process whereby the formidable reputation imposed on the Volscians (and other enemies of Rome) may have provoked the development of a stronger identity which could be appealed to in times of war. Such a background is conceivable for the organized revolt led by the Roman Coriolanus. Comparable uprisings, albeit internally generated and obviously less successful, are scattered through the narratives of the fifth and early fourth centuries.

Apart from these war-like manifestations, the growing self-awareness which is suggested here would be likely to generate other expressions of group-identity which would crop up in the field of material remains.

The Samnites - perhaps the most vigorous Italian opponents of Rome and the subject of a case-study by Emma Dench - provide a good illustration of growing cultural and ethnic identity in reaction to Roman influence.\(^629\) From the large body of material remains associated with their culture, we sense a close link between the reawakening of a distinct identity and an involvement in the Social War.\(^630\) Although this case is from a much later

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\(^624\) Livy IV, 61,7.

\(^625\) Livy II, 9,6; II, 34,4; IV, 25,2. Cf. also Coarelli 1990, 135-154, esp. 148. On the grain supplies from this area, see Garsey 1988.

\(^626\) Cf. Ampolo 1990, 120-121, on the assumed privileged relationship between Rome and the Latial area.

\(^627\) Livy III, 8,3-5. Livy mentions 13,470 of the enemy killed and 1,750 taken prisoner.

\(^628\) Livy VI, 12,2-3.

\(^629\) Dench 1995; *eadem* 1997, 43-51.

\(^630\) Lomas in Cornell/Lomas 1997, 5; Dench 1997, 49.
date, an hypothetical parallel could be drawn with the Volscians, who may have only become aware of their distinct identity under the threat of the Roman advance.

Regrettably, the hypothesis as applied to the Volscians cannot be tested in the same way as it can for the Samnites. Although attempts have been made to do so (via the assignment of the Late-Archaic temple (Temple II) to the Volscians and via a 'Volscian-oriented' interpretation of the iconography of the terracotta decoration of this temple) I regard them as rather speculative and perhaps premature.631

On the other hand, I believe that Satricum is the source most likely to provide a conclusive answer in the 'Volscian debate', since it offers an archaeological record covering a long and continuous period against which the proposed process of growing self-awareness may be studied. If we accept that the cities of Suessa Pometia and Satricum are one and the same, then evidence of an early indigenous presence should be present in the archaeological record. To date this has been only been attested sporadically; i.e. by the presence of pottery with a typical 'Apennine' decoration scheme in some graves of the Northwest Necropolis, by the find of a small, coherent group of similar sherds dispersed in the toplaye of the Santarelli area (see Ch. 3.2), and by the occurrence of a specific category of fibulae with an indigenous origin in Votive Deposit I.632 These finds have been interpreted in the light of early transhumance contacts (see above). However, more consistent evidence of a sixth-century Volscian presence can be expected from the excavations of the east part of the acropolis.633 The story seems to end with the Volscian assertion of themselves as a distinct cultural group via the selection of their own burial ground; namely, that of the Southwest Necropolis.

632 See Waarsenburg 1995a, 228-231, for the finds in the Northwest Necropolis, with many parallels. See Cristofani 1992, 13-24, on the diffusion of the type of fibula called fibula a tre bozze. The latter are also present in Votive Deposit I (CatLazioPrimitivo 1976, 328-329, cat. 108, 44-46, pl. LXXXVIII).
633 I refer here to the discovery in 1995 of a small concentration of ceramics of a non-Latial character in a presumably votive context, Gnade 1997, 47, fig. 9.
5 SUMMARY AND CONCLUSIONS

The aim of this study has been to present the available archaeological evidence for the Post-Archaic period of Satricum and to proceed from this evidence to some conclusions about the nature of the settlement during this era. The starting point was the fifth-century necropolis, discovered in the southwestern part of the settlement, just within its sixth-century boundaries, in 1980. As such the necropolis constituted a novelty in the archaeological picture of fifth-century Latium, where burial evidence had previously been conspicuously absent. The particular nature of the necropolis, combined with its location inside the former habitation area, has provoked a fundamental debate about its cultural identification which has thrown up two opposing positions. Either the burials were to be attributed to the Volscians, who are reported as having captured Satricum in 488; or they were to be attributed to the Latin community which had continued to occupy the settlement after it had supposedly fallen into decay in the early fifth century. Both interpretations are closely linked to the unstable political situation in the Latial region, which was characterised by many (historically recorded) military confrontations between Rome and the invading Central-Italian mountain peoples. The possibility that this situation is reflected in the archaeological evidence is not to be discarded.

In my analysis of Post-Archaic Satricum I have tried to address the issues raised by the changes observed in the archaeological record of the settlement. How do we interpret them and what implications can be drawn in the light of the historical background?

The archaeological discoveries of the past twenty years have demonstrated that the settlement of Satricum continued to exist throughout the Post-Archaic period. In fact, given the sheer volume of the discovered remains, the central argument of those who characterise this particular period as a Dark Age (i.e. the general absence of archaeological finds) seems to have fallen away, at least in the case of Satricum. Direct evidence for an uninterrupted occupation of the site is provided by the burial record, which has been documented in three different areas within the sixth-century settlement. In addition to the Southwest Necropolis, two more cemeteries from the same period have been brought to light, one on the acropolis itself and one on the north side of the settlement in the area known as the Poggio dei Cavallari.

Continuity of the settlement has further been demonstrated by the abundant artifactual evidence found both in closed stratigraphical contexts and dispersed in the lower settlement area. Building activity from this specific period has been attested to only a limited degree, but is represented by the remains of a long wall along the south side of Satricum’s main road. The wall was part of an integral raising of the level of this road and also appears to have functioned as a retaining wall with a defensive function.

A direct link between the Archaic and the Post-Archaic periods is provided by the remains of a monumental road discovered and excavated in the lower settlement area, in the Poggio dei Cavallari. I have identified this road as the main thoroughfare of the town. It must have
led up to the central sanctuary of Mater Matuta, in front of which identical remains were identified at the end of the nineteenth century. On the acropolis the road is generally referred to as the *Via Sacra*.

The road has been dated to the last quarter of the sixth century. It covered an earlier Archaic tract which appears to have been laid out in a wide natural depression.

The construction and monumental lay-out of the rebuilding of the road can be regarded as a major enterprise which fits well into the general picture of urban development throughout the settlement in the late sixth century. The road illustrates the high degree of organization and technical skill which had been achieved by this period, aspects of which are also encountered in the monumental construction of the Late-Archaic temple to which the road was presumably connected. Although it was seriously damaged (or even destroyed), probably not long after its construction, the road retained its function as main artery. This can be inferred from evidence of a restoration, during which the level was raised and new side walls were erected on the north. Hereafter, from the beginning of the fifth century, the road may also have served as a demarcation line between the habitation area and the area of the dead. A necropolis was laid out along its northern side.

A similar pattern has been observed in relation to the two other burial areas laid out in the settlement during this period: the small cemetery on the acropolis discovered along the west side of the *Via Sacra* and the large Southwest Necropolis. Apparently the infrastructural organization of the Archaic period was still in use during the fifth century. A similar scenario is presumed for the Archaic houses.

During the period represented by the three necropoleis, the town must have been inhabited by quite a large community. Although the total number of documented graves may seem not very high (c. 250 graves have been recorded in the whole town), this is probably only a fraction of the original total. None of the three necropoleis have been fully excavated or even been completely documented, while the dispersal of graves over a very large area north of the main road implies that here the original cemetery was extensive. A similar picture holds for the acropolis cemetery. Although any estimate of the number of inhabitants of fifth-century Satricum would be highly speculative, it must surely have been several orders of magnitude greater than the number of documented graves.

No actual dwellings have been found which can be associated with these cemeteries, but habitation can be inferred from the building debris and pottery remains encountered in a dump stratum used to raise the level of the road in the Poggio dei Cavallari somewhere in the fifth century. Based on the dates attributed to these finds, I have suggested that sixth-century structures, which probably occupied the adjacent area to the south, were still in use during the Post-Archaic period.

A similar hypothesis is here proposed for the habitation of the acropolis, the area often cited as evidence for the absence of any Post-Archaic settlement activity. Although stone foundations of many Archaic buildings were here encountered *in situ*, these appeared to lie immediately under the present surface. No original floor-levels were recorded. This suggests to me that these have been removed, probably when the top layers of the hill were levelled in modern times. All evidence of later periods would then have undoubtedly been destroyed at the same time. Nevertheless, the acropolis (like the Poggio dei Cavallari) has yielded an enormous quantity of artifacts dating from the Post-Archaic period (mainly domestic vessels and building debris), the bulk of which can be linked to a contemporary habitation of the hill. This material was found in a large deposit which was identified by the excavators as a
primary, open votive deposit. In my view, however, it should be regarded as an enormous
dump of material which probably ended up there following a large-scale clean-up of the area.
Given the date of two Roman coins found in one of the upper layers of the deposit, this may
have happened some time after the middle of the third century.

In the case of the Southwest Necropolis, a habitation area is presumed to have existed on
the adjacent hill in the Macchia Santa Lucia, where the remains of some buildings were
uncovered at the end of the nineteenth century.

Despite the unmistakable continuity of the settlement during the fifth century, there is also
a marked change in the pattern of occupation in the area of the sixth-century town. This is
best illustrated by the selection of separate and dispersed areas for burial. This deliberate
choice of new burial grounds (i.e. inside the Archaic city boundaries, and especially on the
acropolis), plus the sudden reappearance of regularly furnished graves after an absence of
more than a century, constitute the main evidence for concluding that a new population were
living in Satricum and practising different customs.

A thorough analysis of the burials in the Southwest Necropolis has led to a deeper insight into
both the social and the ethnic character of this community. Although some of the
interpretations presented here are admittedly speculative (as is inevitable, given the absence
of external parallels for the Satricum graves) the total sum of our observations presents a clear
image of a well-organized group of people who had developed a fairly stable way of life.

Kinship must have been a determining factor in the lay-out of the necropolis. This
conclusion is based on the spatial distribution of the graves, which reveals a pattern
(especially in the central and southern parts of the cemetery) of small groups of intersecting
graves, or pairs of graves, or multiple burials in single graves. Children seem to have
occupied a special position. This is suggested by the care bestowed on their disposal (which
is equal to that given to adults) and by the nature of their burial outfits. Some are
comparatively rich in terms of the number of gifts, while in others symbolic offerings
especially made for the burial are present in the grave. This treatment of children is
remarkable and alien to previous Latial funerary practices.

The burials exhibit a striking uniformity and a relative modesty in outfit over the whole
period in which the necropolis was in use. The few recorded differences between individual
graves (such as varied numbers of grave goods) have here been explained in chronological
terms, assuming some economic development over the course of the fifth century. This would
have led to a certain level of prosperity, which in turn may have found its expression either
in greater numbers of vessels in some graves and/or in occasional imports or 'expensive' gifts.

The topographical lay-out of the graves was probably also chronologically determined, in
the sense that the highest part of the burial ground (in the northeast) was probably selected
for the first graves. In time the lay-out of the necropolis then followed the slope down
towards the south and southwest.

Thanks to the analysis of the skeletal remains from the graves, we have for the first time clear
evidence of the subsistence economy of the Satricum community. It has been established that
this was not based solely on agriculture, which would have provided a diet dominated
SUMMARY AND CONCLUSIONS

by vegetables and cereals, but also incorporated forms of proteic production, such as breeding and stock-raising. The resulting balanced diet seems to be reflected in the fairly good state of health and the relative longevity of the people buried in the necropolis.

In other ways, too, the burial record provides evidence of quite a well-organized community, part of a society which was more complex than one would assume from the relative modesty of the burials. The main evidence for this complexity is an inscription referring to an official magistrate, an aedilis. The inscription not only implies that some people could read, but also that they were acquainted with the kind of official function inherent to an urban organization. It further implies a level of political organization within this particular community. The inscription, written in a non-Latin indigenous dialect, is also of fundamental importance for the ethnic identification of the Southwest Necropolis (see below).

Given the general absence of actual building remains (except for the white wall in the Poggio dei Cavallari) and the lack of archaeological evidence for the date of destruction of the last temple and its surrounding buildings, any suggestions regarding the nature of the settlement in this period must remain speculative. However, we can surely assume that the Post-Archaic settlement retained many of the urban features observed in the sixth-century. As has been shown, the road system remained in use and was probably kept in good repair during the long period represented by the burials laid out along the various roads. By extension, we can assume that similar care was bestowed on the rest of the buildings in the town. My own guess is that dwellings from the Archaic period probably remained inhabited, or were restored, by the population buried in the fifth-century graves. A similar hypothesis may be proposed for the public buildings. As far as the main sanctuary is concerned, any suggestion about its Post-Archaic existence must remain speculative, but some importance should be attributed to fragments of a Post-Archaic restoration of the terracotta decoration of the last temple. Nor should we ignore Livy's reference to the temple of Mater Matuta existing in 207.

There remains the question of the ethnic identification of Post-Archaic Satricum. In my view, most of the arguments justify the attribution of the graves to the Volscians. There is no doubt whatsoever that they populated the region in the fifth and early fourth centuries and must, therefore, have lived in Satricum. As argued above, the deliberate decision to bury the dead within the former urban area, especially on the acropolis, while the former Iron Age burial mounds were still clearly visible, is a strong argument for seeing the burials as evidence of a new ethnic group.

Another argument supporting a Volscian identification is the apparent renaming of the town (from Suessa Pometia to Satricum) in the early fifth century. This theory is based on the disappearance of Suessa Pometia from the historical record without any reference to its destruction (the final reference to the town is in 495). This occurs at almost the same moment that Satricum appears on the scene, as one of the towns captured by the Volscians in 488. At the same time, there is evidence to suggest the existence of another Satricum, situated in the middle Liris valley. The re-use of the name would imply a conscious connection with the ancestral homeland.

Certain burial gifts, such as the buccher o kantharoi with double-reeded handles, have also been classified in terms of ancestral links. This type of vessel, which is characteristic of the necropolis, is alien to the Latial repertoire and finds its most notable parallels in the inland
area. Presumably the vessel possessed an intrinsic ancestral significance.

An additional piece of evidence supporting a Volscian identification for the Southwest Necropolis is the inscription on the lead axe-head, mentioned above. The combination of the non-Latin language and the personal character of the object make this a real marker of non-Latin, probably Volscian, identity.

Perhaps the most convincing link with the inland area is provided by a body of material discovered in the town of Frosinone. The original burial context of these finds, as well as their strong resemblance to finds from the Southwest Necropolis, point to a high degree of cultural and ethnic similarity between the inhabitants of the two towns. The town of Frosinone, with its location on the ancient routes used by indigenous groups from the Apennine interior, is one of the places in which the Volscians are likely to have settled on their long journey from their homelands to the coastal plains.

Although any literal correspondence between the archaeological and historical records may be regarded as virtually impossible, there is nevertheless a remarkable coincidence between the two sets of evidence as regards Satricum. This is first apparent in the late sixth and early fifth centuries when Rome’s attention was focussed on the ager Pomptinus and its capital Suessa Pometia. Whether or not Satricum is identical with Suessa Pometia, both towns must have been located in southern Latium. It follows that the archaeological record of Satricum should reveal traces of destruction related to the military activity in the region. A compelling example, which has been discussed in this study, is the damage to (or destruction of) Satricum’s main road. Although the exact moment of events (involving a large conflagration) could not be established, there is strong evidence to suggest that they happened towards the end of the sixth century or at the beginning of the fifth, probably shortly after the road’s construction. Although the argument is not without flaws, the situation is strikingly reminiscent of the annalistic account of events which eventually lead to Suessa Pometia’s capture, either in 503/502 or 495. Given the archaeological evidence for the restoration of the road which is presented here, the year 488 can also be considered a possible candidate.

There are also remarkable coincidences to note with regard to the Post-Archaic period. After Satricum’s historical capture by Gnaeus Marcius Coriolanus and his Volscians in 488, the settlement seems to have enjoyed a quieter spell. In fact, for nearly a century the written sources do not report any military activity in relation to the town. It is not unlikely that the Volscian community in Satricum developed a stable and relatively peaceful existence during this period. This situation seems to be reflected in the burial evidence, which covers a continuous period of approximately one century without any obvious changes in the basic funerary ritual. This stability must have changed dramatically from the early fourth century onwards, when Satricum was again in the front line of various military encounters and reportedly changed hands several times. It seems likely that the unstable situation led to a disruption in normal burial practices. The necropoleis, at any rate, are no longer used after the early fourth century and the population associated with the burials becomes archaeologically invisible. Taken together, these final two instances of correspondence between the archaeological evidence and the historical account add weight to the already strong case for a Volscian identification of fifth century Satricum.

We will conclude by stating that the legendary Volscians, who despite playing a major role in the drama of Rome’s early struggle for hegemony have remained almost archaeologically invisible, have been finally rediscovered in ancient Satricum. Their traditional ‘barbarian’
image, as related by Livy, is in no way confirmed by the archaeological record, which if anything points in the opposite direction. Within the scientific debate on ethno-cultural interpretation of material culture, Satricum in the Post-Archaic period emerges as a valuable case-study in the relationship between archaeological remains and the historical record.
NEDERLANDSE SAMENVATTING

Deze studie behandelt de Post-Archaïsche periode (ca.500-350 v.Chr.) van Satricum, een antieke stad gelegen ca. 60 km ten zuiden van Rome in de regio Latium. Doel is het karakter van de stad gedurende de betreffende periode te reconstrueren aan de hand van de beschikbare archeologische gegevens in relatie tot de antieke historische bronnen.

Uitgangspunt vormde een grafveld uit de vijfde eeuw v.Chr. dat in 1980 werd ontdekt in de zuidwest hoek van het stadsgebied, net binnen de zesde-eeuwse stadsgrenzen. Dit grafveld is vooral nog uniek in het vijfde-eeuwse Latium dat vanaf de late zevende/vroeg zesde eeuw gekenmerkt wordt door een opvallende afwezigheid van formele begraafplaatsen. Deze uniciteit heeft, samen met de locatie binnen de voormalige stads grenzen en het specifieke karakter van het grafveld, geleid tot een fundamentele discussie over de toeschrijving van de graven en de ethno-culturele identiteit van de bewoners van de stad in de vijfde eeuw v.Chr.

Er bestaan twee tegengestelde opvattingen. Volgens de eerste kunnen de graven worden toegeschreven aan de Volsken, een inheems Italische bevolkingsgroep, die volgens de historische bronnen Satricum in 488 v.Chr. innam. Volgens de andere opvatting zijn de graven toe te schrijven aan een kleine, Latijnse gemeenschap die in de stad bleef wonen nadat deze was verwoest in de vroege vijfde eeuw v.Chr. Beide interpretaties zijn direct gerelateerd aan de instabiele politieke situatie in het Latiale gebied die volgens de historische bronnen gekenmerkt werd door talrijke militaire confrontaties tussen Rome en binnenvallende Centraal-Italiaanse bergvolkeren. De Volsken die in de historiografie worden afgeschilderd als een oorlofgzuchtig en woest bergvolk, spelen in dit scenario een hoofdrol. Zij houden gedurende ca. 150 jaar het zuidelijk deel van Latium in hun greep.

Een en ander lijkt te worden weerspiegeld in het archeologische beeld van dit gebied. De grote Archaïsche centra lijken in verval te raken of compleet te worden verlaten. In vergelijking met de archeologisch rijke zesde eeuw wordt de vijfde eeuw vooral gekenmerkt door een schaarste aan archeologische gegevens, de reden waarom deze periode ook wel als Dark Age wordt aangeduid. De archeologische ontdekkingen in Satricum lijken dit beeld echter te nuanceren. Er is sprake van een onmiskenbare continuïteit van de nederzetting.

Het directe bewijs voor het voortbestaan van de stad wordt gevormd door een aantal vijfde-eeuwse grafvelden die op drie verschillende plaatsen binnen de zesde eeuwse nederzetting zijn ontdekt. Naast de necropool in de zuidwest hoek van de stad, is er een tweede, vergelijkbaar grafveld op de akropolis waarvan ca. 35 graven zijn gedocumenteerd. Een vijftal graven in het noordoel de van de nederzetting, in het gebied bekend onder de naam Poggio dei Cavallari, verwijst naar een derde grafveld uit deze periode.

Continuïteit van de nederzetting wordt verder gesuggereerd door talloze artefacten uit de vijfde en vierde eeuw. Deze zijn zowel in stratigrafische contexten als verspreid over het terrein rondom de akropolis aangetroffen.

Een directe link tussen de Archaïsche en Post-Archaïsche periodes wordt gevormd door de resten van een monumentale weg die in het lagere stadsgebied van Satricum, de Poggio dei Cavallari is ontdekt (Hfdst. 2.1). Deze weg leidde waarschijnlijk naar het centrale heiligdom van Mater Matuta, aan de voorzijde waarvan resten van een vergelijkbare weg werden
blootgelegd aan het einde van de 19de eeuw. Op de akropolis wordt deze weg wel als de Via Sacra aangeduid.

De weg wordt gedateerd in het laatste kwart van de zesde eeuw en maakte waarschijnlijk deel uit van een grootschalige herbouw van de stad waaraan ook de bouw van de laatste monumentale tempel van Mater Matuta kan worden toegeschreven. Gedurende de vijfde eeuw bleef de weg van Satricum in gebruik. Het niveau werd tweemaal opgehoogd wat gepaard ging met de constructie van nieuwe zijmuren (Hfdst. 3.2.1).


De stad moet gedurende de Post-Archaïsche periode bewoond zijn geweest door een omvangrijke gemeenschap. Hoewel het totale aantal bekende graven niet erg groot lijkt (er zijn ca. 250 graven gedocumenteerd over de gehele stad), is dit aantal waarschijnlijk slechts een fractie van het oorspronkelijke aantal. Geen van de drie grafvelden is volledig opgegraven. De verspreide aanwezigheid van graven over een groot terrein ten noorden van de weg in de Poggio dei Cavallari impliceert dat deze grafvelden zeer uitgestrekt was, maar grotendeels is verwoest. Eenzelfde reconstructie is denkbaar voor het grafveld op de akropolis. Elke schatting van het inwonersaantal van het vijfde eeuwse Satricum is onzeker.

Hoewel er geen vijfde-eeuwse huizen zijn gevonden die geassocieerd kunnen worden met de vijfde-eeuwse graven, kan bewoning worden afgeleid uit een 'dumpstratum' bestaande uit dakpannen, tufbrokken en aardewerk. Deze laag is op een bepaald moment in de vijfde eeuw v.Chr. gebruikt om het niveau van de weg te verhogen. Het materiaal is waarschijnlijk afkomstig van Archaïsche huizen die zich op niet al te grote afstand van de weg moesten hebben bevonden. Op grond van de datering van het materiaal kan worden aangenomen dat de huizen ook nog in gebruik waren in de Post-Archaïsche periode.

Eenzelfde hypothese stel ik voor de akropolis voor, het gebied dat door afwezigheid van vijfde-eeuwse structuren altijd als bewijs is gebruikt voor het ontbreken van enige nederzettingsactiviteit in de Post-Archaïsche periode. De stenen funderingen van de Archaïsche huizen liggen hier direct onder het maaiveld eind zijn in de meeste gevallen bewaard tot net onder het antieke loopniveau. Zowel de bovenbouw van deze structuren als de meeste oorspronkelijke vloeren en plaveisels zijn verdwenen, waarschijnlijk als gevolg van moderne riviering activiteiten. Mogelijke resten die getuigen van Post-Archaïsche bouwactiviteiten zijn hiermee ongetwijfeld vernietigd. Desondanks is op de akropolis, net als in de Poggio dei Cavallari, een grote hoeveelheid materiaal gevonden dat voornamelijk bestaat uit gewoon gebruiksarbeid en bouwpui uit de Post-Archaïsche periode. Dit materiaal is aangetroffen in een enorm depot dat door de opgravers zelf is geïnterpreteerd als een open votiefdepot waarin gelovigen gedurende een periode van meer dan 150 jaar votieffers zouden hebben bijgezet (Hfdst. 3.1.1). In mijn reconstructie kan het materiaal goed worden geassocieerd met een continuering van bewoning van de heuvel in de Post-Archaïsche periode en zou eerder gezien moeten worden als het resultaat van een grootschalige opruiming van de akropolis. Op grond van de datering van twee Romeinse munten die bovenin het depot zijn aangetroffen kan dit hebben plaatsgevonden ergens na het midden van de derde eeuw v.Chr.
In het geval van de Zuidwest Necropool is de aangrenzende heuvel in de Macchia Santa Lucia de aangewezen plaats voor bewoning. Hier werden aan het eind van de 19de eeuw de resten van gebouwen aangetroffen.

Ondanks de vermoedelijke continuïteit van de nederzetting in de vijfde eeuw, is er ook een duidelijke verandering in het nederzettingpatroon van het voormalige Archaïsche stadsgebied. Dit wordt het best geïllustreerd door de bestemming van nieuwe, aparte gebieden als grafveld. Zowel het feit dat deze nieuwe begraafplaatsen zich binnen de Archaïsche stads grenzen bevinden en zelfs op de akropolis, als ook de plotselinge terugkeer, na meer dan een eeuw van afwezigheid, van het grafritueel waarbij de doden met grafgiften worden begraven, zijn aanwijzingen dat Saturnium door een nieuwe bevolkingsgroep, in casu de Volsken, met afwijkende gebruiken werd bevolkt.

Een diepgaande analyse van de graven in de Zuidwest Necropool (Hfdst. 4) heeft geleid tot een beter inzicht in zowel het sociaal als ethnische karakter van deze vijfde-eeuwse gemeenschap. Hoewel sommige van de interpretaties speculatief zijn, wat onvermijdelijk is gezien de afwezigheid van parallellen voor de graven buiten Saturnium, leidt het totaal van observaties tot het beeld van een goed georganiseerde groep mensen die in redelijk stabiele omstandigheden geleefd heeft.

Verwantschap, zo wordt hier betoogd, was waarschijnlijk een van de bepalende factoren in de aanleg van het grafveld. Deze conclusie baseer ik op de ruimtelijke verspreiding van de graven. Ze vertonen namelijk een patroon, met name in de centrale en zuidelijke delen van het grafveld, van kleine groepen van elkaar oversnijdende graven, of van paren van graven, of van meervoudige begrafvingen in afzonderlijke graven. Kinderen lijken in deze gemeenschap een speciale positie te hebben ingenomen. Dat wordt gesuggereerd door de zorg die besteed is aan hun begrafning (gelijk aan die van volwassenen) en door het karakter van hun grafinhoud. Sommige kindergraven kunnen rijk genoemd worden waar het het aantal grafgiften betreft (een paar van de rijkste graven in het grafveld zijn bijvoorbeeld die van kinderen), andere vallen op door symbolische giften die speciaal voor het graf zijn gemaakt. Deze behandeling van kinderen is, vergeleken met de Latiale grafgebruiken, opmerkelijk te noemen.

De graven vertonen een opvallende uniformiteit en een vrij bescheiden grafinhoud gedurende de gehele periode dat het grafveld in gebruik was. De paar geconstateerde verschillen tussen de graven onderling, zoals de variatie in aantallen grafgiften, lijken chronologisch bepaald en in directe relatie tot een mogelijke economische ontwikkeling in de loop van de vijfde eeuw. Die zou hebben geleid tot een zeker niveau van welvaart dat tot uitdrukking kan zijn gebracht in het meegen van hetzij grotere aantallen vazen in sommige graven, hetzij in een enkel importstuk of een 'duur' object.

De topografische lay-out van de graven was waarschijnlijk ook chronologisch bepaald. De oudste graven bevinden zich in het hoogst gelegen noordoost deel van het grafveld. In de loop van de tijd breidde het grafveld zich heuvelafwaarts uit, in zuidelijke en zuidwestelijke richting.

Dankzij de analyse van de skeletresten (Appendix) beschikken we nu voor het eerst over duidelijke gegevens over de middelen van bestaan van de Satriciaanse gemeenschap. Deze blijken niet alleen te zijn gebaseerd op landbouw, die voorziet in een diet van voornamelijk groenten en granen, maar men moet ook vormen van proteïnerijke productie hebben gekend, zoals veeteelt. Het gebalanceerde dieet dat uit een dergelijke gecombineerde bestaanseconomie
voorkomt lijkt te worden weerspiegeld in een redelijk goede gezondheid en een betrekkelijk lange levensduur van de mensen die in het grafveld zijn begraVEN.

Ook op andere gebieden zijn er aanwijzingen voor een goed georganiseerde gemeenschap die deel uitmaakte van een samenleving die meer complex was dan de relatief bescheiden graven op het eerste gezicht zouden doen vermoeden. Het belangrijkste bewijs voor deze complexere samenleving wordt geleverd door een inscriptie (op een loden miniatuurbijltje) die verwijst naar een officiële magistraat, eenaedilis. De inscriptie impliceert niet alleen dat sommige mensen konden lezen, maar ook dat men bekend was met het soort officiële functies die inherent zijn aan een stedelijke organisatie. Daarnaast verwijst de inscriptie naar een bepaald niveau van politieke organisatie binnen de betreffende gemeenschap. De inscriptie, gesteld in een niet-Latijnse, inheems dialect, is ook van belang voor de ethnische identificatie van het grafveld (zie verder).

Gezien de algemene afwezigheid van bewijs voor bouwactiviteiten in de vijfde eeuw, met uitzondering van die van de ophoging van de weg in de Poggio dei Cavallari, is iedere suggestie ten aanzien van het karakter van de nederzetting in deze periode speculatief. Ik meen echter te kunnen stellen dat de Post-Archaïsche nederzetting vele stedelijke kenmerken zoals die uit de zesde eeuw moet hebben gehad. Het wegsysteem bleef in gebruik en werd waarschijnlijk goed onderhouden gedurende de lange periode dat graven hierlangs werden aangelegd. Eveneens kan verondersteld worden dat dezelfde zorg werd toegepast voor de gebouwen van de stad. Het is zeer waarschijnlijk dat de huizen uit de Archaïsche periode bewoon bleven door de mensen die begraven zijn in de vijfde-eeuwse graven. Dezelfde constructie is denkbaar voor de openbare gebouwen. Hoewel iedere suggestie met betrekking tot het voortbestaan van het centrale heiligdom gedurende de Post-Archaïsche periode speculatief is, mag enig belang worden toegeschreven aan vele 'late' terracotta fragmenten die duiden op een restauratie van het dak van de laatste tempel gedurende deze periode. Daarnaast kan en mag ook Livius' verwijzing naar de tempel van Mater Matuta in 207 v.Chr. niet worden genegeerd.

Ten aanzien van de ethnische identificatie van Satricum in de Post-Archaïsche periode lijken de meeste argumenten een toetsing van de graven aan de Volsken te rechtvaardigen. Er is geen twijfel dat de Volsken in de regio woonden gedurende de vijfde en vierde eeuw en zij zullen ook zeker Satricum hebben bevolkt. De bewuste keuze om doden binnen het voormalige stadsgebied te begraven, met name op de akropolis, terwijl de levende-eeuwse Latijnse grafheuvels nog zichtbaar moeten zijn geweest, is een belangrijk argument om de nieuwe graven te verbinden met deze nieuwe bevolkingsgroep.

Een ander argument voor een Volskische identificatie is de verandering van de naam van de stad in de vroege vijfde eeuw, van 'Suessa Pometia' in 'Satricum'. Deze theorie is gebaseerd op het verdwijnen van de naam Suessa Pometia uit de historische bronnen (de laatste verwijzing naar de stad is in 495 v.Chr.), bijna tegelijkertijd met de eerste vermelding in de bronnen van de stad Satricum als een van de steden die door de Volsken in 488 v.Chr. worden ingenomen.

Er is in de bronnen tevens sprake van een ander 'Satricum' gesitueerd in de vallei van de rivier de Liris, het mogelijke land van herkomst van de Volsken. Het hergebruik van deze naam zou kunnen duiden op een bewuste connectie met hun thuisland. Bepaalde grafgiften zoals de bucchero kantharoi met 'dubbelloops' handvat kunnen eveneens worden geclassificeerd als objecten met een hoge intrinsieke voorouderherinnering waarmee een bewuste band met het thuisland tot uitdrukking werd gebracht. Dit type vaas dat
karakteristiek is voor het grafveld en onbekend is in het Latiale repertoire, kent vooral parallel len in het Apennijnse achterland van Latium.

Een belangrijk bewijsstuk voor de Volskische identificatie van de Zuidwest Necropool is de eerder genoemde inscriptie op een lenden miniaturbijltje. De combinatie van een niet-Latijnse taal met het persoonlijke karakter van de grafgift die als een hanger om de nek werd gedragen, maken het tot een echte marker van Volskische identiteit.

Wellicht de meest overtuigende verbinding met het achterland wordt gevormd door materiaal dat ontdekt is in de stad Frosinone en afkomstig is uit graven die hier in de jaren zestiende werden opgegraven. Vooral de oorspronkelijke grafcontext van dit materiaal, dat sterke gelijkenis vertoont met de objecten uit de Zuidwest Necropool in Satricum, wijst op een sterke mate van culturele en ethnische verbondenheid tussen de bewoners van beide steden. De stad Frosinone, gelegen op de antieke route die gebruikt werd door inheemse groepen op hun tocht vanuit het Apennijnse binnenland naar de kustgebieden, is een voor de hand liggende plaats waar zich Volsken kunnen hebben gevestigd.

Hoewel een letterlijke verbinding tussen de archeologische en historische gegevens in principe onmogelijk is, kan er desondanks een opmerkelijke overeenkomst tussen beide bronnen worden opgemerkt met betrekking tot Satricum. Dit is in de eerste plaats duidelijk in de late zesde en vroege vijfde eeuw wanneer Rome’s aandacht gevestigd is op de aegar Pomptinus en zijn hoofdstad, Suessa Pometia. Of Satricum en Suessa Pometia nu één en dezelfde stad zijn geweest of niet, beide steden moeten in Zuid Latium hebben gelegen. Hieruit volgt dat het archeologisch onderzoek in Satricum sporen van vernietiging zou kunnen opleveren die te verrederen zijn aan de militaire activiteiten in de regio. Een tot de verbeelding sprekend voorbeeld dat in deze studie wordt behandeld is de gedeeltelijke verwoesting van de weg van Satricum. Hoewel het exacte moment van deze verwoesting niet kan worden vastgesteld, zijn er archeologische aanwijzingen dat dit gebeurd is vlak na de constructie, aan het einde van de zesde of aan het begin van de vijfde eeuw. Er is hier sprake van een opvallende correspondentie tussen de archeologische situatie en de historische weergave van gebeurtenissen volgens welke de stad Suessa Pometia wordt ingenomen, in 503/502 of in 495 v.Chr. De verwoesting zou ook kunnen corresponderen met de historisch overgeleverde inname van Satricum door de Volsken in 488 v.Chr.

Er zijn daarnaast ook nog opmerkelijke overeenkomsten tussen archeologische en historische gegevens voor de Post-Archaïsche periode. Na de inname van Satricum in 488 door Gnaeus Marcus Coriolanus en zijn Volsken, lijkt de nederzetting in een rustiger vaarwater te zijn beland. Voor de duur van bijna een eeuw wordt geen melding meer gemaakt van enige militaire activiteit in relatie tot de stad. Het is niet ondenkbaar dat de Volskische gemeenschap in Satricum een stabiel en betrekkelijk rustig bestaan kon opbouwen in deze periode. Deze situatie lijkt te worden weerspiegeld in de grafdocumentatie die een continue periode van bijna een eeuw dekt, zonder enige wezelijke verandering in het grafritu. De stabiele omstandigheden moeten dramatisch zijn gewijzigd vanaf de vroege vierde eeuw, wanneer Satricum zich weer in de frontlinie van militaire confrontaties bevindt. In deze tijd is de stad in wisselende handen. Het lijkt voor de hand liggend dat deze onzekere situatie heeft geleid tot een breuk in de traditie van begraven. In elk geval kan geconstateerd worden dat de necropolen niet langer in gebruik zijn vanaf de vroege vierde eeuw. De bevolking die geassocieerd wordt met de vijfde-eeuwse graven verdwijnt archeologisch gezien uit beeld. Deze laatste twee voorbeelden van elkaar bevestigende archeologische en historische gegevens kunnen gezien worden als een verdere onderbouw van de voorgestelde Volskische identiteit van het vijfde-eeuwse Satricum.
De legendarische Volsken die archeologisch bijna onzichtbaar zijn gebleven ondanks hun hoofdrol in het drama van Rome’s strijd om de hegemone, zijn uiteindelijk teruggevonden in het antieke Satricum. Hun traditionele barbaarse imago, dat door Livius herhaaldelijk wordt aangehaald, wordt op geen enkele wijze bevestigd door de archeologische vondsten. Deze wijzen eerder in een tegengestelde richting.

Binnen de wetenschappelijke discussie over ethnis-ch-culturele interpretatie van materiële cultuur, biedt Satricum een verrassende case-study voor de combinatie van archeologische en historische gegevens.
THE BIOLOGICAL PROBLEM OF CENTRAL ITALIAN POPULATIONS DURING THE FIRST MILLENNIUM: SATRICUM, A CASE STUDY

By Mauro Rubini, Elisabetta Bonafede, Silvia Mogliazza, Stefania Marroni

Introduction

Iron Age Central Italy was characterized by significant political, social, economical and cultural changes which led to the emergence of the Roman state. Analysis of the osteological remains of the sites from the whole area may provide precious information about the effects of the gradual absorption of heterogeneous groups within the Roman sphere. In this way, the evidence from the burials in the southwest necropolis of Satricum (500-300 BC), a case-study for Latium, is useful in throwing light on the comprehension of the cultural processes leading to the rise of Roman cities, as well as on the relationships among the populations of Latium and those of neighbouring regions.

In order to investigate any possible bio-anthropological divergence that might exist between Satricum and other coeval and diachronic populations of Central Italy, an odontometric study as well as paleodemographical and palenutritional analyses were carried out.

The use of demographical parameters allowed the analysis of the interrelations between cultural and ecological aspects of adaptation and, more generally, the alterations in livelihood strategies over time (Armelagos, 1968-1969; Armelagos et al., 1981; Coppa, 1988; Green et al., 1974; Hassan, 1979; Howell, 1976; Martin et al., 1984; Nemeskeri, 1978; Van Gerven et al., 1981).

Materials and methods

The skeletal materials of the Southwest Necropolis of Satricum are attributable to 82 inhumates, of which four are generically adults. In the sample, the subadults of neonatal age are completely absent. This datum could be casual, perhaps connected with the extreme fragility of the young bones.

The comparative diagnosis of sex and age at death was formulated by Hoogland and Rubini according to Acsádi and Nemeskeri (1970) and Ferembach et al. (1977-79). Because of the poor state of the skeletal remains, the traits normally used for the determination of sex were very limited, so that it was possible to approximate it only in 43 instances (Table 1).

The most reliable factor for the diagnosis of age at death was the dental development as indicated by both the stage of eruption of teeth and the wear degree of the chewing surfaces (Lovejoy, 1985; Ubelaker, 1978). The paleodontologic analysis involved the dentitions of 66 individuals (17 females, 21 males, 10 children and 18 of undefined sex) referable to the population of Satricum. Extremely worn and broken teeth, as well as those affected by extensive carious affections, were systematically excluded from the study. Moreover, neither the

1 Servizio di Antropologia SAL, v. degl i Stabilimenti 5, 00019 Tivoli (RM). The English of this contribution has been corrected by Archer Martin.
deciduous dentition were considered, nor the teeth lost *intra vitam, post mortem*, or never erupted.

Of each single crown (from I1 to M2) the Mesiodistal (M-D) and Buccolingual (B-L) diameters were measured by a vernier caliper according to Goose (1963).

As far as metric traits are concerned, the descriptive statistics both for separate sides (upper and lower jaw) and for combined sex included sample size (N), mean values (M), standard deviation (DS) and the coefficients of variability (CV) for both diameters (B-L and M-D).

In order to evaluate the statistic significance concerning the difference among homologous teeth of both jaws in the considered series, the "t-Student test" for coupled data was used. The comparison between Satricum and other coeval and diachronic populations of central and southern Italy was made using the Anova system.

Among the indicators of pathologic and nutritional stress, the enamel hypoplasia was scored (Perzigian *et al.*, 1984; el-Najjar *et al.*, 1978; Goodman *et al.*, 1980; Brothwell, 1981). Its position was recorded as the distance from the neck of each tooth in mm. We considered the vestibular surface of teeth, both upper and lower, giving priority of information to canines and incisors (Goodman *et al*. 1984).

Its rising age was estimated according to Massler *et al*. (1941) with Swardstedt's revision (1966). We also evaluated the position of caries affections on dental crowns, as well as their importance (Marafon, 1981) and their percentage of incidence.

Trace element analysis can give us important information on the dietary habits of past human populations, always keeping in mind the biasing factor represented by the great number of the sample itself and its dispersion through time. The data obtained become even more important when they can be compared with archaeozoological, paleobotanical and material culture ones and thus be used to enhance our knowledge of a past society and its habits.

As has been well known for more than 15 years, the most useful elements for this analysis are calcium, strontium and zinc. These three elements are those least affected by diagenetic factors, if analysed with an adequate methodology (Lambert *et al.*, 1979; Bisel, 1980; Schoeninger, 1980, 1982; Sillen, 1984; Klepinger, 1984; Fornaciari e Mallegni, 1987; Ceccanti, 1994; Burton e Wright, 1995; Gilbert *et al.*, 1994; Bartoli, 1995). Sr and Zn contents in the bone are related to those of Ca, so that we can standardize the values and avoid external contaminants that are not part of the original bone composition (Bisel, 1980).

Sr properties are known thanks to researches on Sr 90 dispersion after nuclear experiments. This element has properties similar to those of Ca: it concentrates in the inorganic bone matrix, taking 99% of Ca's place, and is very stable even after the individual's death and in the grave (Sillen, 1981 a, b; 1984; Sillen and Kavanaugh, 1982; Turekian and Kulp, 1956). This element is particularly concentrated in vegetables and other vegetable products, so that it is present mostly in herbivores, and also, in high concentrations, in fish. Sr values in human bone are directly proportional to the consumption of vegetables and cereals during life, so that a diet rich in carbohydrates will give high values of the Sr/Ca ratio. To standardize its concentration we also have to know the rate for herbivores living in the same site at the same time and to correlate the two ratios: the closer the value gets to one, the higher the consumption of food of vegetal origin was (correction with the site). This method allows us to compare our data with those obtained for groups living in different areas and at different times as well (Bisel, 1980; Schoeninger, 1980, 1981, 1982).

The other element widely employed in this study is zinc, mostly present in meat (especially in red meat), milk and by-products, in crustaceans and some molluscs and in certain food of
vegetal origin, such as nuts and beans, i.e. those rich in plantula proteins (Guenguen, 1971; Fidanza, 1974; Underwood, 1977; Lambert et al., 1979; Bisel, 1980; Blakely and Beck, 1981; Klepinger, 1984; Gilbert, 1985).

As far as paleodemography is concerned, the abridged life tables may bring out any existing connections between ecological aspects and cultural aspects of adaptation connected with age, sex and different life conditions. Their construction was made following the methods of Ac-sádi and Nemeskeri (1970) and Buiskra and Mielke (1985). In these tables, drawn up with the programme “Tabmor” worked out by SAL (Servizio di Antropologia, Soprintendenza Archeologica per il Lazio) and the Institute of Anthropology (University of Rome “La Sapienza”), adults were systematically distributed in age classes with five-year intervals, while those within five years of age in a range from one to three. In order to gather the mature-senile individuals whose diagnosis of age at death is more complex, the last class of age was enlarged to x (50-x). Such a subdivision enabled us to present standardized data.

The representative level both for the Satricum sample and for the others used in the comparisons was preliminarily tested estimating the sex-ratio values for individuals aged more than 20 and 30. The ratio between “not productive and productive”, i.e. the index of youth (index “X”) and the ratio of deceased between 5-10 years (D5-10) and 10-15 years (D 10-15), was also estimated.

The metric traits were scored according to the Martin & Saller method (1957-1966), while the calculus of stature was obtained through the Trotter & Gleser (1952) methodologies.

Results

In Table 1 we quote the data about sex and age at death both recorded by Hoogland and by ourselves. The disagreement on age (not too influential) can probably be ascribed to the different methods used.

Comparative descriptive statistics of the Satricum odontometric traits are quoted in Table 2. The comparison within the sample did not show substantial differences between males and females (table 3). The slightest variability of the mesiodistal (M-D) diameters in maxillary M3 and in II, I2 of the lower jaw was indeed underlined.

The buccolingual (B-L) diameters of both dental arches show no statistically expressive difference.

The comparisons between Satricum and other coeval and diachronic populations of central and southern Italy (9th-4th cent. BC) revealed a wide dimensional heterogeneity both for B-L and M-D diameters (from II to M3). This is particularly clear in the samples from Alfedena, Campovalano, and Pontecagnano (Tables 4, 5).

As far as variability within the sample is concerned both for Satricum and for the samples used for comparison (Tables 6 and 7), the coefficients of variability reflect those linked to any single element, as well as a spread homogeneity in all the compared populations (except for a few cases). Satricum’s metrical comparisons, on the contrary, underline a substantial isolation.

At Decima, Ardea, Osteria dell’Osa and Sala Consilina, populations differ from Satricum in P3, P4, M1, M2 and M3 for both jaws, while the incisors and canines are analogous.

The observation of morphological characters of dental crowns did not only reveal a dichotomy presence/absence but also a minimum, medium and maximum degree of expression per trait.
Among dental traits, the most recurrent characters concern the upper and lower molars and premolars (as the presence or absence of hypocone, of Carabelli’s trait, of mesial and distal accessory cusps and their degree of expression), as well as the incisors, especially maxillary ones (percentage of shovel-shapes).

The relation between the population conventionally defined as unproductive with regard to the work force and fertility (D 0-15 + D 50-x) and the group defined as productive (D 15-50) produced values between 0.24 and 0.80, underlining the existence of communities not much differentiated in structures and growth-rate. This led us to suppose a common economic pattern, as well as a social context, unidirectionally developed from the 9th to the 2nd cent. BC.

All the values below unit derive from a common greater number of individuals aged from 15 to 50 years, while the presence of the few children represented may indicate a society with low infantile death-rate and high longevity. Because of the total lack of the infantile portion and of the first juvenile class in the Alfedena sample, we did not obtain such a result.

The values of the juvenile index (D 5-15/D 20-x), included between 0.10 and 0.30, satisfied the demand of a demographically probatory sample in Satricum and Syracuse (Masset and Parzysz, 1985; Masset, 1986).

None of the areas examined was able to satisfy the ratio D 5-10/D 10-15. Only Satricum came near the interval of 1.50-2.00, which are values expected (Masset and Parzysz, 1985; Masset, 1986) in estimating the trustworthiness of the mortality model obtained from skeletal samples.

Table 8 shows the chances of death at birth (q0) and at 10 years (q10), which are higher than at 15 years (q15) both in Satricum and Syracuse. In the Alfedena necropolis we could not value these ratios.

<table>
<thead>
<tr>
<th></th>
<th>Satricum</th>
<th>Termoli</th>
<th>Tarquinia</th>
<th>Alfedena</th>
<th>Syracuse</th>
<th>Ferrone</th>
</tr>
</thead>
<tbody>
<tr>
<td>q0</td>
<td>102.55</td>
<td>72.09</td>
<td>10.87</td>
<td>71.44</td>
<td>54.55</td>
<td></td>
</tr>
<tr>
<td>q10</td>
<td>56.18</td>
<td>47.32</td>
<td>11.98</td>
<td>128.84</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>q15</td>
<td>72.09</td>
<td>10.87</td>
<td>71.44</td>
<td>47.32</td>
<td>11.98</td>
<td></td>
</tr>
</tbody>
</table>

The ratio M/F >30 seems to be higher than M/F >20, denoting an increase in the mortality of adult males in Termoli, Tarquinia, Alfedena and Ferrone, while in Satricum and Syracuse the result is inverse. This last datum, perfectly clear in the abridged life tables, may be associated with a greater incidence of lethal factors for females of nearly 20 years of age as a consequence of childbirths close in time, post-delivery haemorrhages, puerpery faced in an inadequate physical state, while in males, on the contrary, an increase of lethal factors, proportional to the rise of age, may take place (Table 9).

<table>
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<th>Satricum</th>
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Paleodemographic analyses may lead both to the identification of any possible structural anomaly of skeletal samples coming from cemeteries of archaeological interest. Sometimes they may also underline the rate of infantile mortality, the rates of fertility, the increase of population etc.

The abridged life table therefore allows the evaluation of the intercurrent connections between ecological aspects and cultural aspects of adaptation in relation to age, sex and different life conditions.

The paleodemographic sample of Satricum was made up of 82 individuals, including 12 children between 2 and 8 years of age, 5 youths between 10 and 16, 61 adults (24 probably males, 18 females and 25 individuals for whom a diagnosis of sex was not possible). The abridged life table was thus drawn up only considering 59 of the 82 individuals from the whole sample (Table 10).

Infantile mortality seems not to be particularly high, forming 20.7% of the total and it concerned especially individuals between 5 and 9 years of age, while no case of death in neo- and perinatal age was recorded.

The analysis of the values stated in the abridged life table showed that the main number of deaths was in the adult-juvenile class, with values between 13.71 (20-24 years) and 13.94 (25-29 years).

In the upper age classes, on the contrary, a decrease in the number of deaths was shown, starting from the class 35-39 years. The chances of deaths (qx) reach their highest value between 25-29 years (313.28) and 30-34 years (391.16), remaining high, however, even between 15-19 years (119.05) and 20-24 years (235.58).
The values of life expectancy (ex) seem to be low in the first age class and very low especially in the range between 40 and 50-x years, while they reach the top (100.00) only at birth.

The coeval and diachronic samples used in the comparison point out, as far as the mortality-rate is concerned, that infantile deaths are numerically low in all the first four classes of age, with a maximum at Termoli (7.79) in the first age class (0-1 year). In Alfedena the infantile age classes and the first youth class were not represented.

Subadult and adult mortality (dx) is well represented in all the age classes between 15 and 19 years and 50-x with very high percentages in the classes 30-34 and 35-39 years in Tarquinia of 62.11% and 61.15%, respectively. In Alfedena, Syracuse and Ferrone, on the contrary, we have rather low rates (Fig. 1).

![comparisons ex among populations](image)

Figure 2 - Life expectancy in populations of various Italic sites.

The values of life expectancy (ex) seem to be rather low in all the age classes: between 0 and 14 years they are in the range of 22.18-35.03, while they decrease in the following age classes (although with some fluctuation), so that very few individuals reach a good longevity. Those who reach 50 years of age have a further life expectancy between 4.00 and 9.40 years (Fig. 2). The rate of survivors (lx) confirms the datum with percentages clearly decreasing from the first to the last age classes (Fig. 3).

As far as dentition is concerned, among the indicators of episodic stress we went on to analyse the enamel hypoplasia consisting of a reduction of the same enamel thickness because of trouble during dental growth as a consequence either of pathologic alterations or nutritional deficiency (Goodman et al., 1980). The macroscopic result of such an alteration is the presence of transversal lines on the vestibular dental crowns. Its rising age, considered starting from the position of the defect on the crown, was valued around 3.361 years. This datum is important because it could indicate the period of weaning. Generally the age of weaning is high in an-
cient populations and low in modern. However, it is possible to find it low in some particular organized ancient communities, like those of the Etruscans or Sicilians. Especially the agricultural communities of the first millennium have a very high age of weaning, like Satricum. More than the half population of Satricum (60.6%) presented a slight enamel hypoplasia (first degree): the females (4.85%) less than males (10.9%).

Caries, one of the main dental affections in ancient populations, had a low rate of incidence (29.5%) in Satricum, probably in connection with a large use of vegetables and cereals in everyday diet or, on the contrary, with a scarce consumption of sweet food. Most of the localized caries are on the occlusal surface of molars and in a bucco-lingual position.

The recorded data underline a very moderate degree of parodontosis, partially confirmed by a scarce presence of tartar on the dental crowns.

![comparisons lx among populations](image)

Figure 3 - Survival rates in populations of various Italic sites.

The paleonutritional data indicated a prevailing vegetarian diet (table 11) as the principal investigated mineral components suggested.

Strontium (Sr), present in high percentages in vegetables, is one of the most expressive parameters in defining a vegetarian diet. Its rate in bones, directly proportional to the consumption of vegetal foods, may be calculated considering that 99% of strontium in the body is accumulated in bones and only 1% in tissues (Comar et al., 1963) The rate of strontium in plants and animals depends on the available amount of this element in the streams or ground of an area (Sillen et al., 1982; Sillen, 1984). The comparison with the values of other sites necessi-
tates a standardization obtained considering another mineral element of the bony matrix through the ratio Sr (in ppm) / Ca (in mg/g) in human bones and in herbivorous animal bones that lived in the same area. When the value gets near the unit, we can suppose that the population ate large amounts of vegetables (Fornaciari, 1990). Zinc (Zn), on the contrary, contained mainly in beef and fish, denotes a meat diet.

The analysis of the chemical elements found in the Satricum bones showed a high value of strontium (0.792), while the zinc component was rather low (0.504).

The evidence of both chemical elements in samples of other ancient populations underlined different kinds of economy. Samples with similar or higher values were considered agricultural sites; those with a concentration between 0.4 and 0.6, a mixed economy with balanced consumption of vegetable and proteinic food. A value under 0.4 should represent, on the contrary, a site with a pastoral economy (Fornaciari, 1990).

In a comparison with other Greek and central Italian sites of the first millennium, Satricum shows a subsistence pattern with a great component of agricultural origin. However, also the proteic append, shown by Zn/Ca, is well represented.

Its economy of subsistence is similar to Ardea, which is geographically near to Satricum. Both show a good status with a well-balanced diet rich in proteic integrations. On the contrary, the Etruscans of Tarquinia, as is well known, show a diet very poor in proteic append, probably because the main economical activities was agriculture, integrated with products derived by commercial exchange and not by a primary production like pastoral activity.

The morphological characterisation of people at Satricum shows a dimensional dimorphism between sexes. The males are very tall in comparison with the other populations in central Italy (x=170 cm), while the females have an average similar to other central Italian females. This result could be casual and connected with the low number of the sample (10 males and 6 females), but it could also be the expression of a genetic drift produced by a migratory phenomenon interesting only the male sex.

This statural datum, obtained from appendicular skeletal segments, agrees (when it was possible to make a comparison) with statures scored by Marshal Becker in the field through the prints of skeletons in situ (Marshal Becker unpublished manuscript).

Discussion

During the first millennium BC, central Italy presents complex and varied problems of population. Of these, one has a geographic nature: the Apennines divide the peninsula longitudinally into two sides: the Tyrrenian and the Adriatic. The first faces an open sea with large islands densely populated from the prehistoric period, and is therefore the object of intense commercial exchanges. Some populations, like the Etruscans, based their economy on these exchanges. Even if a real military hegemony is absent: we find biological and cultural Etruscan elements along the whole central Tyrrenian coast.

The second side faces the Adriatic, an enclosed sea, and turns its back to the Apennines which were, in ancient times (but probably even more so recently), a sort of geographic barrier allowing a certain cultural permeability; at the same time it was more restrictive as far as the passage of bio-dynamic fluxes is concerned. Such a situation is well represented in Fig. 4. The results underlined here were obtained by selecting and comparing genetic markers (Rubini et al., 1997).
The Adriatic populations seem biologically separated from the Tyrrhenian ones, which show some affinities with the insular ones in their turn. The explanation lies in a greater human aptitude for sea-travel than for crossing mountains, a real barrier. Each side, therefore, has its own homogeneity and peculiarity.

Figure 4 - Hypothesis of biological homogeneity and divergence among populations of central Italy.
Satricum contradictorily respects the present hypotheses only in part. From a demographic and economic point of view the site seems to be different from the Adriatic populations, while a fair integration with the Tyrrhenian ones is revealed.

More specifically, the site appears strongly linked to Latin sub-coastal towns like Ardea, sharing the same economic pattern of livelihood. As in the whole Italian peninsula and unlike the Etruscans, this was based on more or less developed forms of agriculture richly integrated with forms of proteic production such as breeding and probably stock-raising. Inevitably, this will be reflected in the general health conditions of a community.

The paleodemographical aspects, too, underlined Satricum’s relatively good state of health. They show a fair longevity even compared with the Adriatic site of Alfedena, a real ancient model of longevity.

In spite of the poor observations concerning some skeletal indicators of stress (preventing an extensive study from being made), we can suppose that this population, even practising an extensive agriculture, was not particularly vexed in its working conditions, which was underlined in Ardea, too. The Etruscans of Tarquinia and Ferrone, on the contrary, had physical working activities certainly more stressing for skeletons.

The morphological aspects represent instead a contradictory knot. The presence of sexual dimorphism of dimensional nature is part of the biological rules of a normal population. In our case, the dental metric traits, some postcranial metric traits and the stature of the females seem to fit the coeval model perfectly. In males, on the contrary, these variables and the stature appear heterogeneous in the comparison with the central Tyrrhenian and Adriatic models. The high statures, and the proportionally extended and thin limbs, represent a more modern shape when compared to other coeval populations, respecting patterns that may be more diffused in the southern area of the Mediterranean basin.

The univariated statistical analysis of teeth (that are an expression of human biology) indirectly confirms this. The teeth underline a generally spread heterogeneity in comparison both with the Tyrrhenian populations and the Adriatic ones (Tables 4 and 5).

Because of the high number of “N”, this divergence is relatively reliable and can be ascribed to a phenomenon of familial segregation fundamentally based on endogamy, a custom widely spread during the first millennium BC, largely related and shown (Capasso, 1985; Bondioli et al. 1984; Rubini, 1986; Rubini et al., 1997).

This led to a peculiar characterisation of Satricum, although merely with regard to males. The above mentioned divergence could also be caused by some migratory strategies coming from the Mediterranean basin that brought a male group (more or less numerically substantial) in contact with autochthonous people.

In this process of biological mixture, the slight chronological hiatus (nearly one and a quarter of a century) could have played an important roll, so that the autochthonous and allochthonous genetic substrata may not have had the time to interpenetrate completely.

As recent studies (Bondioli et al., 1984; Rubini et al., 1997) point out that during the Iron Age in Italy 5 or 6 generations may have followed one another in a century, we could have at most 7 investigated generations in the contextual period. This number is too low: so we may have a real genetic characterisation with the appearance of particular phenotypes with prejudice to others. The contradiction among these phenomena may be explained in a simple way: the biological aspects need a long time to become part of a context; those linked to social and cultural models (for instance, economic patterns of livelihood and general state of health, both
connected with special social or working status) should be regarded in a context of the interaction between man and environment, being strongly tied to surviving events so that they allow shorter adaptation times.

As far as morphological aspects are concerned, the high statures and the above mentioned longevity (even if they are the result of the analysis of only a few skeletal remains in a good general state of preservation) could indicate a population better suited to coastal than to mountainous areas.

A possible hypothesis of movements from the central Adriatic may be excluded on the basis of the shown statistical heterogeneity.

Another adaptive factor of coastal plain areas (where intensive agriculture is the fulcrum of the economic pattern of surviving) is the small dimensions of teeth, often typical of the agricultural populations of the countryside.

Conclusions

The population of Satricum was marked, from a paleodemographic point of view, by a scarce infantile mortality, altogether absent in the birth class (probably because of chance and the fragile nature of children's bones). The most numerous deaths were, on the contrary, those in the adult-juvenile class, especially in males, so that we can suppose the existence of serious risks of death linked to particularly stressing occupational activities or to war events.

The great concentration of deaths in the intermediate age classes undoubtedly caused not only a low life expectancy among the population, but essentially a quite premature halving of its component.

The distribution of dx and ex occurred in a similar way in the coeval and diachronic series used in the comparison.

As far as paleonutritional data are concerned, the high value of strontium probably suggests the predominant use of vegetables or cereals in the diet and a moderate proteic contribution. This implies a probable agricultural economic pattern integrated with scanty stockbreeding, especially of sheep and cattle.

The low frequency of affections and the general good state of dental health are an indicator of a quite rich food supply.

Tooth dimensions, helpful to denote sexual dimorphism, gave us different values in comparison with coeval and diachronic populations of Italy. The different metrical values of Satricum led us to suppose a partial biological isolation for that area in reference to the substantial homogeneity of the biological substratum noted for other central and southern areas of the peninsula.
APPENDIX: OSTEOLOGY

Additional note

Satricum, Santarelli Area 1997, Tomb 2

Materiale frammentario. Presenti varie parti della calotta cranica, l’osso mascellare sinistro e frammenti del destro, la mandibola quasi completa; recuperati 24 denti. Lo scheletro post-craniale e rappresentato da frammenti relativi a clavicola, scapola, vertebre, costole, epifisi ed esigui frammenti di diafisi delle ossa lunghe, ossa delle mani e dei piedi.
Individuo di sesso femminile (vedi morfologia della mandibola, con ramo ascendente molto inclinato; misura della testa del femmone = 38-39 mm).Età = 15-18, desunta dall'osservazione dei denti e delle zone epifisarie (saldatura o meno delle epifisi alle diafisi nelle ossa lunghe e delle teste e delle basi nelle falangi, nei metacarpi e metatarsi).
Da notare: cribria orbitalia di grado severo; danno artropatico di lieve-media entità (grado 2 di Sager) esteso alla colonna vertebrale; ernia del disco osservabile in una vertebra toracica; possibile valgismo (vedi rotule).

Satricum, Santarelli Area 1997, Trench 8

Scheletro infantile. Calvario rappresentato in quasi tutte le sue parti e mandibola quasi completa. Presenti 29 denti (17 decidui e 12 permanenti, in formazione); scheletro post-craniale: parti delle clavicole, delle scapole, della colonna vertebrale, delle costole; omero sn incompleto + frammento di diafisi del dx; radio sn quasi completo + parte di diafisi del dx; diafisi di ulna; alcune falangi e metacarpi; parti del bacino (framm. relativi all'ischio, all'ileo, alla superficie auricolare, all'incisura ischiatca); femore dx incompleto + parte prossimale del sn; parti delle diafisi delle tibie dx e sn; due framm. relativi alle fibule; alcune falangi del piede e metatarsi.
Infante di circa 2-3 anni. Età ricavata dal grado di sviluppo dei denti (formazione ed eruzione) e dalla misurazione delle ossa lunghe complete = omero e radio, rispettivamente di 12,3 cm e 9,2 cm.
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Inside comparison between males and females through the "t-Student" test

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Legend: ns=.05<p (not significant)  * = 0.01<p <0.05  ** = p<0.001
**APPENDIX: OSTEOLOGY**

**Table 4**
Comparison between the Satricum necropolis and other coeval and diachronic populations of central and southern Italy ("t-Student"): Satricum 5th cent. BC, Alfedena 6th-5th cent. BC (Coppa and Macchiarelli, 1982; Coppa and Vargiu, unpublished data), Castel di Decima 9th-8th cent. BC (unpublished data), Campovalano 7th-4th cent. BC (unpublished data), Ardea 8th-6th cent. BC (Rubini et al., 1992), Osteria dell'Osa 9th-8th cent. BC (Alciati et al., 1977), Pontecagnano 7th-4th cent. BC (Mallegni et al., 1984), Salò Constilina 9th-6th cent. BC (Coppa and Cucina, 1991).

![Image of the table](https://example.com/table4.png)

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**Legend:** ns = 0.05 < p (not significant)  * = 0.01 < p < 0.05  ** = p < 0.001
Table 5
ANOVA between Satricum and other coeval and diachronic populations of central and southern Italy (unified sexes)

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Legend: ns=.05< p (not significant) * = 0.01< p < 0.05 ** = p<0.001

Table 6
Coefficients of variability at Satricum

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Coefficients of variability of coeval populations: Maxillary teeth

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Coefficients of variability of coeval populations: Mandibular teeth

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Abridged life table of the Satricum population

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### Table 11

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### APPENDIX: OSTEOLOGY

(Continued...)

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References

Acsadi G., Nemeskery J. 1970

*History of Human Life Span and Mortality*, Akadémiai, Kiado, Budapest

Armelagos G.J. 1968

*Paleopathology of three archaeological populations from Sudanese Nubia*, Ph.D. Dissertation, University of Colorado.

Armelagos G.J. 1969


Armelagos G.J., Jacobs K.H., Martin D.L. 1981


Bartoli F. 1995


Bisel S.C. 1980

*A pilot study in aspects of human nutrition in the ancient eastern Mediterranean, with particular attention to trace minerals in several populations from different time periods*. Washington, Smithsonian Institution Thesis for the degree of Doctor Philosophy.


Bondioli L., Corruccini R.S., Macchiarelli R. 1986


Brothwell D.R. 1981


Buiskraa J.E., Mielke J.H. 1985


Burton J.H., Wright L.E. 1995


Capasso L. 1985-86

'Familiar relationship reconstruction in the burial “circles” of the Alfedena necropolis (Iron Age; L’Aquila, Italy) using the morbidity and topographic distribution of non-malignant osseous neoplasm', *Ossa*, 12:3-7.

Ceccanti R. 1994


Comar C.L., Wasserman R.H. 1963


Coppa A. 1988


El-Najjar M.Y., De Santi M.V., Ozbek L. 1978


Ferembach D., Schwidetzky L., Stloukal M. 1977-79

'Raccomandazioni per la determinazione dell’età e del sesso sullo scheletro', *Rivista di Antropologia*, 60:5-51.

Fidanza F. 1974


Fornaciari G. 1982


Fornaciari G., Menicagli Trevisani E., 'Indagini paleonutrizionali e determinazione del piombo osseo mediante spettroscopia
APPENDIX: OSTEOLOGY

Ceccanti B. 1984  
ad assorbimento atomico sui resti scheletrici di epoca tardo-romana (IV sec. d.C.) della "Villa dei Gordiani" (Roma), Archivio per l'Antropologia e l'Etnologia, 114:149-176

Fornaciari G., Mallegni F. 1987  
'Paleonutritional Studies on Skeletal Remains of Ancient Populations from the Mediterranean Area: an Attempt to Interpretation', Antropologischer Anzeiger, 45:361-370

Fornaciari G. 1990  
'Indagini paleonutrizionali mediante spettroscopia ad assorbimento atomico sui resti scheletrici protoenotolitici di Piano Vento (Palma di Montechiaro, Agrigento)', Rivista di Antropologia, 68:129-140.

Gilbert R.J., Jr 1985  

Gilbert G., Sealy J., Sillen A. 1994  
An investigation of Barium, Calcium and Strontium as Paleodiabetic Indicators in the Southwestern Cape, South Africa.

'Enamel hypoplasia as indicators of stress in three prehistoric populations from Illinois', Human Biology, 52:515-528

Goodman A.H., Martin D.L., Armelagos G.J., Clark G. 1984  

Goose D.H. 1963  

Green S., Armelagos G.J. 1974  

Guenguen L. 1971  

Hassan F.A. 1979  
'Demography and archaeology', Annual Revue of Anthropology, 8:137-160.

Hoogland L.P. 1992  

Howell N. 1976  

Klepinger L.L. 1984  

Lambert J.B., Szpunar C.B., Buikstra J.E. 1979  
'Chemical analysis of excavated human bone from Middle and Late Woodland sites', Archaeometry, 21:115-129

Lovejoy O.C. 1985  
'Dental wear in the Libben population: its functional pattern and role in the determination of adult skeletal age at death', American Journal of Physical Anthropology, 68:47-56

Marafon L. 1981  
Odontoiatria, Edizioni Universitarie, Roma

Martin R., Saller K. 1957-66  


Massler M., Schohr I., Poncher H.G. 1941  

Masset C., Parzysz B. 1985  

Masset C. 1986  
APPENDIX: OSTEOLOGY

Nemeskeri J. 1978


Perzigian A.J., Tench P.A., Braun D.J. 1984


Rubini M. 1996

'Biological homogeneity and familial segregation in the Iron Age population of Alfedena (Abruzzo, Italy), based on discrete cranial traits analysis', International Journal of Osteoarchaeology, 6:295-299.

Rubini M., Bonafede E., Mogliazza S., Moreschini L. 1997

'Etruscan biology: the Tarquinian population 7th-2nd century BC (Southern Etruria, Italy)', International Journal of Osteoarchaeology, 7:202-211.

Schoeninger M.J. 1980

Changes in Human Subsistence Activities from the Middle East, Ph.D. Dissertation, University of Michigan.

Schoeninger M.J. 1981


Schoeninger M.J. 1982

'Diet and the evolution of modern human from the Middle East', American Journal of Physical Anthropology, 58:37-52

Sillen A. 1981a

'Post-depositional changes in Natufian and Aurignacian Faunal bones from Hayonim Cave', Paléorient, 7:81-85.

Sillen A. 1981b


Sillen A. 1984


Sillen A., Kavanagh M. 1982


Swardstedt T. 1966


Trotter M., Gleser G.C. 1952


Turekian K.K., Kulp J.L. 1956

'Strontium content of human bones', Science, 12:405-409.


'Scoring procedures for key morphological traits of the permanent dentition: the Arizona State University Dental Anthropology System', in Kelley M.A. and Spenser Larsen (eds.), Advances in Dental Anthropology, New York

Ubelaker D.H. 1978

Human Skeletal Remains: Excavation, Analysis, Interpretation, Chicago

Underwood E.J. 1977

Trace Elements and Animal Nutrition, New York.


'Mortality and culture change in Nubian Batn El Hajar', Journal of Human Evolution, 10:395-408.
In anticipation of a complete analysis of the strata of the Poggio dei Cavallari - the study of the enormous quantity of material being still at a preliminary stage - we are here presenting a very small selection of the most significant finds in order to give an initial impression of the whole.

The material will be discussed following the sequence of the main recognised strata. These are: 1) the surface of the Archaic road (cat. nos. 3-12); 2) the fill of the foundation trench of the Late-Archaic road (cat. nos. 1-2); 3) the strata immediately on top of the Late-Archaic road and associated with structures g/i and j and with a restoration of the road (cat. nos. 13-44); 4) the dump stratum associated with the construction of wall a/b and identified as an integral part of the raising of the road level (cat. nos. 45-125); 5) the top stratum covering the tufa grit associated with wall a/b, as recorded at the two highest preserved points of the excavation area (cat. nos. 126-186). The two final items (cat. nos. 187-188) are from grave ST 2. Inventory numbers are given in brackets at the end of each description. All measurements are in cm.

Foundation trench of wall c (sections I and III): surface of the Archaic road (nos. 3-12) and fill of the trench (nos. 1-2) (Fig. 1).

1. Upper part of jar. Outcurving lip with two encircling grooves, slightly tapering rim. Orange coarse clay with light grey core (reddish yellow 5YR 7/8; core yellowish brown 10YR 5/6); rather much large augite, hard baked. Diam. 15 (S46/15/1&2).

2. Bucchero bowl. Low, flaring ringfoot, outcurving edge, flat on top; carinated bowl; short everted lip; slightly thickened rim, faceted. Bucchero, dull sheen. H. 5.7; Diam. foot 7.5; Diam. rim 15.5 (Section I - S52/11/8).

3. Fr. of bucchero kantharos (?). High everted lip, tapering rim. Dull sheen, core with small particles. Diam. est. 14 (S46/15/3).

4. Ringfoot or knob of lid-bowl. Wide everted ring, concave underneath; rounded edge with finger-impressed decoration. Orange pale brown coarse clay (red 10R 5/8), fine augite. Diam. 7 (S46/15/4).

5. Two fitting frr. of bottom of jar. Flat base. White coarse clay (very pale brown 10YR 8/3, core pink 7.5YR 8/4), 'Campanian' in texture, fine augite. Diam. 5 (S46/15/2&3).

6. Fr. of rim of globular squat jar. Strongly thickened rim with encircling groove. Bright orange coarse clay (red 2.5 YR 5/8 to 4/8), chalk, augite, small stones. Diam. est. 34 (S46/19/1).

7. Fr. of rim/wall of hemispherical basin. Incurling wall; slightly thickened rim, rounded. Brick red coarse clay (reddish brown 2.5YR 5/4), augite, sand, sporadical haematite. Diam. est. 34 (S 46/19/1).

8. Fr. of rim/wall of globular jar; short everted lip, slightly thickened rim, rounded. Black-brown coarse clay (reddish grey 5YR 5/2). Diam. est. 16 (S46/19/1).

9. Fr. of rim of jar; short everted lip, slightly thickened rim, near flat on top. Orange-pale brown coarse clay (reddish yellow 5YR 6/6 to 6/8), inside smoothened, fine augite, small stones. Diam. est. 18 (S46/19/1).

10. Fr. of rim of jar. Outcurving and tapering. Red impasto, burnished, sandy core (reddish brown 5YR 5/4 to dark reddish grey 5YR 4/2). Diam. est. 14 (S46/19/1).
SELECTION OF FINDS

11. Fr. of wall of basin. Spreading wall. Ondulating surface. Red coarse clay (light red 2.5YR 6/8 to light reddish brown 5YR 6/4), smoothened, sand, mica, grog. 10 x 5 x 1.5 (S46/19/1).

12. Bottom of jug (?). Low flaring ring-foot, concave underneath, bevelled edge. Black coarse clay, core grey-brown (very dark grey 5YR 3/1), augite. Diam. 6.6 (S46/19/1).

Sandlayer associated with walls g/i and j (sections II and IIA) (Fig. II).


15. Fr. of rim/shoulder of low carinated cup. Rounded shoulder, short, near vertical lip, tapering rim; short and shallow oblique grooves on shoulder. Handmade black-brown impasto, core red-brown tending to grey; burnished. H. pres. 3.6; Diam. 18 (S35/11/1). Cf. CatArea Sacra 1985, hut NIR 2, 165, nr. 114.

16. Fr. of rim of jar. Everted lip, tapering rim. Brick red impasto, grey sandy core, traces of burnish (S35/10/1).

17. Fr. of rim of bowl. Rounded. Handmade orange to greyish impasto, burnished (burned). Diam. est. 10 (S35/10/2).

18. Fr. of kantharos. Shallow conical lower body, sharp carination, high outcurving lip, rounded rim (S35/10/2). Black burnished impasto, sandy brown core. H. pres. 4.5; Diam. 15 (S35/10/2). Cf. Waarsenburg 1995a, tomb IX, cat. no. 8.2, Pl. 63.

19. Bobbin. Irregular shape. Impasto, pale brown tending to grey, sandy core with sporadic fine haematite. H. 6; Diam. max. 3.7; min. 2.3 (S35/10/2).

20. Miniature spindle whorl. Conical. Dark brown impasto, sandy core, very worn. H. 1.5; Diam. 2 (S35/10/1).

21. Fr. of rim of skyphos (?). Tapering. Buccero, high sheen. 2 x 2 x 0.2 (S35/10/1).

22. Fr. of lip of kalyx/kantharos (?). High everted lip, slightly curving. Buccero, high sheen. Diam. est. 10 (S35/10/3). Cf. Rasmussen 1979, types 2c and 2d; Pls 27, nos. 135-137.

23. Fr. of lip of kalyx/kantharos (?). High everted lip, slightly curving; tapering rim, bevelled on inside. Buccero, high sheen. Diam. est. 11 (S35/10/3). Cf. Rasmussen 1979, type 2d; Pl. 27, no. 136.


25. Fr. of rim of bowl. Rounded. Dark grey-black bucchero. Diam. 12 (S20/4/6).

26. Fr. of rim of bowl. Tapering, two encircling grooves on outside. Dark grey-black bucchero, flaking surface. Diam. est. 12 (S20/4/6).

27. Upper part of jug (?). Rounded sloping shoulder; high everted lip, rim rounded on outside. Black bucchero. Diam. 6 (S20/4/6). Cf. Rasmussen 1979, type 2.

28. Fr. of lip of jug (?). Concave with rounded rim. Buccero, dull black. Diam. est. 8 (S35/10/1).

29. Lower part of jug (?). Low base ring, concave underneath, rounded edge. Buccero, dull greyish-black, worn surface. H. pres. 3; Diam. 4.5 (S35/10/1).

30. Bottom of jug (?). Low flaring ring-foot, concave underneath, bevelled edge. Black coarse clay, core grey-brown (very dark grey 5YR 3/1), augite. Diam. 6.6 (S46/19/1).
30. Fr. of foot. Flaring. Bucchero, dull black. Diam. est. 6 (S35/10/1).


32. Fr. of shoulder/lip of "Ionian" cup. Fine creamy pink clay (5YR 7/4) with pale brown (faded black?) bands on shoulder and on lower part of body, (pale) black on inside. Diam. est. 16. For type, cf. Boldrini 1994, type IV/1, Pl. 9, nos. 325: 580-520/500 (S 20/3/2).

33. Rim fr. of goblet, East-Greek (?), thickened and slightly convex on top. Creamy pink clay (reddish yellow 5YR 7/6) with traces of greyish black paint on outside, on top of lip and along upper edge of inside. Diam. est. 10 (S 20/3/2).

34. Fr. of rim of Etrusco-Corinthian goblet. Curving wall; wide, horizontal lip, rounded rim. Pale brown clay (reddish yellow 7.5 YR 7/6), black to buff brown paint on inside and out (very pale brown 10YR 8/3). Diam. est. 16 (S 20/3/2).

35. Fr. of stem of Etrusco-Corinthian goblet. High stem with plastic ring, part of floor of basin. Beige clay (very pale brown 10YR 8/3) with blackish brown to dark brown paint on inside basin; vague horizontal bands on stem. H. pres. 4.5. Cf. CatGrande Roma 1990, 101, no. 4.3.11 (Osteria dell’Osa, tomb 115); (S 35/5/1).

36. Fr. of shoulder/handle of Etrusco-Corinthian jug/oinochoe. Vertical double reeded handle. Depurated crème-white clay; red and black bands on inside of handle. 5 x 5 (S33/3/3).

Walking level on top of sand layer associated with walls g/j and j (sections II and IIA) (Fig. III).

37. Fr. of rim/wall of deep hemispherical basin. Curving wall, thickened rim, flat on top, strongly projecting on outside, rounded. Yellowish coarse clay, white surface wash, grey-brown painted band below rim; dense fine augite, mica. Diam. est. 48 (S33/7/1).

38. Fr. of rim/wall of deep hemispherical basin. Curving wall, thickened rim, flat on top, projecting on outside, tapering and rounded. Yellowish white coarse clay, tending to pale brown; surface wash; dense fine augite, mica, sand. Diam. est. 40 (S20/4/2). Cf. Bouma 1996, II, T41, Pl. CXI (rim less projecting).

39. Fr. of rim/wall of deep hemispherical basin. Curving wall, thickened rim, flat on top, projecting on either side, tapering and rounded on outside, rounded on inside. White coarse clay; crème-white surface wash; dense fine augite. Diam. est. 30 (S35/7/1).

40. Fr. of rim of deep hemispherical basin. Curving wall, thickened rim, projecting on outside, convex on top. White coarse clay, pinkish in core; surface wash; very fine augite. Diam. est. 48 (S33/2/1).

41. Fr. of wall/rim of deep basin. Spreading wall, thickened rim, projecting on either side, near flat on top; original handle or ridge below rim, broken off. White pink coarse clay, surface smoothed; augite, grog. Diam. est. 52 (S33/2/1).

42. Fr. of rim of deep hemispherical basin. Thickened, flat rim, slightly projecting on inside with two encircling grooves. Orange coarse clay, grey in core. Augite, sand, some chalk. Diam. est. 32 (S20/4/3).

43. Fr. of wall/rim of shallow bowl. Curving wall, tapering rim with band shaped thickening on outside, undercut. White coarse ware; dense and very fine augite, mica, white-crème surface wash. Diam. est. 18 (S20/4/2). Cf. Bouma 1996, II, T 38, Pl. CXI.
44. Fr. of shoulder/rim of jar. Sloping shoulder, short cylindrical neck, short everted lip with three encircling grooves, rounded rim.

Dump stratum covering the Late-Archaic road (Figs. IV-XI)

Trays (teglia) (Fig. IV)

45. Tray, nearly intact; three lugs missing. Flat base, high spreading almost vertical wall with vague carina on outside, nearly halfway wall; slightly thickened and rounded rim; on transition from base to wall one preserved triangular to semi-circular lug with finger-impression underneath, rising upward; inbetween two lugs, just above transition to wall, small circular perforation. Pale reddish brown coarse clay, dark grey core; few augite, grog and haematite. H. 14.6; Diam. 44 (P 3095; S33/0). Cf. Bouma 1996, II, Teglia type II, Pls. CV-CVII, esp. T12.

46. Lug and fr. of wall of tray. Small, semi-circular lug with two finger-impressions underneath. Orange brown coarse clay (light red 2.5YR 6/6), light grey core (5YR 7/1); very few augite. H. 4.9; Diam. est. base 45 (S33/1/2).

47. Lug and fr. of bottom of tray. Flat base; small, triangular lug with finger-impression underneath. Pale brown coarse clay, light grey core; fine augite. Diam. est. base 30 (S48/1/2).

48. Fr. of wall/rim of large tray. Thick spreading wall, rounded rim with encircling groove; thick encircling finger-impressed cord decoration below rim. Coarse clay, dark red interior, smoothened, greyish exterior (burnt); Femn; some augite. Diam. est. 50 (S33/1/2).

49. Fr. of wall of large tray. Spreading wall, near horizontal rim, thickened on outside; halfway wall encircling cord-decor. Light orange coarse clay (reddish yellow 5YR 7/1), core light grey (5YR 7/1), inside washed; much large and small augite. Diam. est. 36 (S297/10/1).

Basins (Figs. IV-VII)


52. Fr. of wall/rim of large basin. Transition to base; wide shallow basin, horizontal rim, slightly convex, band shaped thickening on outside. Pale orange coarse clay, grey core; much augite. Diam. est. 42 (S48/1/2). Cf. Bouma 1996, II, T45, Pl. CXII.

53. Fr. of rim of wide shallow basin; horizontal rim, band shaped thickening on outside. Orange-white coarse clay, brownish wash; much large augite. Diam. est. 44 (S48/1/2). Cf. Bouma 1996, II, T43, Pl. CXII.

54. Fr. of wall/rim of wide hemispherical basin; slightly incurving wall, rounded rim, band shaped thickening on outside. Creamy white coarse clay (white 10YR 8/2); much large augite. Diam. est. 52-56 (S48/1/2).

55. Fr. of wall/rim of wide hemispherical basin; horizontal rim, band shaped thickening on outside. Orange semi-coarse clay (reddish yellow 5YR 7/8), pale brown slip, core light grey (5YR 7/1); very few tiny augite. Diam. est. 50 (S33/1/2).
56. Fr. of rim of wide shallow basin; faceted rim, band shaped thickening on outside. Pinkish white coarse clay (pink 7.5YR 8/4); dense fine to small augite. Diam. est. 40 (S33/1/1).

57. Fr. of rim of wide shallow basin; slightly rounded rim, band shaped thickening on outside; partly preserved spout at top of rim. Pinkish white coarse clay (white 2.5Y 8/2), traces of brownish slip; much and very large augite. Diam. est. 40 (S29/7/10/1). Cf. Torreli/Threipland 1970, Fig. 18, D1-3.

58. Fr. of wall of deep hemispherical basin; thickened rim, projecting on either side, rounded on top; encircling ridge below rim, rectangular in profile. White coarse clay (pink 5YR 8/3 tending to 8/4 in core), smoothened; much augite, quartz, grog, mica. Diam. est. 45 (S37/13/5).

59. Fr. of wall of hemispherical basin; thickened rim, projecting on outside, flat on top; encircling ridge below rim, tapering in profile. White coarse clay (pink 7.5YR 8/4), traces of pale brown slip; much large augite, mica, stones. Diam. est. 48 (S33/1/2). Cf. Torreli/Threipland 1970, Fig. 17, C.

60. Fr. of wall/rim of deep hemispherical basin; thickened rim, projecting on either side, flat on top, rounded edge; encircling ridge below rim, tapering in profile. White coarse clay, much large augite, grog, tufa. Diam. est. 30 (S48/1/2).

61. Fr. of wall/rim of hemispherical basin; thickened rim, slightly projecting on either side, flat on top; encircling ridge below rim with shallow finger-impressions. Pinkish white coarse clay (7.5YR 8/2 to pink 7.5YR 8/4), white slip; much small augite, grog, mica, chalk. Diam. est. 32 (S46/11/1).

62. Fr. of wall/rim of deep hemispherical basin; thin curving wall, horizontal lip, slightly convex, near straight rim. White coarse clay (2.5YR 8/2), traces of brownish slip; much large and small augite. Diam. est. 35 (S29/7/10/1).

63. Fr. of rim/handle of deep basin; thin spreading wall, thickened rim, flat on top with rounded edge; vertical loop handle on top of rim, oval in section. White coarse clay, traces of brownish slip on inside and out; very much fine augite, mica. Diam. est. 40 (S48/1/2). Cf. CatGrande Roma 1990, 174, 8.1.10 (Laurentina-Acqua Acetosa).

64. Fr. of rim/handle of deep hemispherical basin; curving wall, rounded thickened rim, projecting on either side; vertical loop handle on top of rim, oval in section. White coarse clay, traces of wash; very much large augite. Diam. est. 32 (S48/1/2).

65. Fr. of rim/handle of deep basin; thickened rim, near flat on top; vertical loop handle on top of rim, oval in section. Pale orange-white coarse clay, traces of brownish slip; very much very fine augite, sandy texture. Diam. est. 32 (S31/11/1).

66. Fr. of rim/wall of deep hemispherical basin; curving wall, thickened rim, near flat on top, projecting to either side. Pale brown to pale orange (reddish yellow 7.5 YR 8/6), grey core, smoothened, traces of reddish slip on rim; very much fine augite. Diam. est. 38 (S33/1/1).

67. Fr. of rim/wall of deep hemispherical basin; curving wall, thickened rim, near flat on top, projecting to outside, rounded in profile; shallow encircling groove below rim. Yellow white coarse clay (white very pale brown 10YR 8/2 to 3); traces of yellowish slip; much fine augite. Diam. est. 30 (S33/1/3).

68. Fr. of rim/wall of deep hemispherical basin; curving wall, thickened rim, flat on top, projecting to outside, rounded in profile; shallow encircling groove below rim. Yellow pink coarse clay (very pale brown 10YR 8/3), pinkish white core (5YR 8/2); traces of yellowish slip; much fine augite. Diam. est. 42 (S48/1/3).

69. Fr. of rim/wall of deep hemispherical basin; thickened rim, flat on top, projecting to outside; shallow encircling groove below rim. Yellowish white coarse clay (very pale brown
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10YR 8/3), pinkish white core (5YR 8/2); traces of yellowish slip; much augite. Diam. est. 40 (S48/1/2).

Etruscan amphora (Fig. VIII)

70. Fr. of lip of Etruscan amphora. Short outcurving swollen lip. Orange brown coarse clay (reddish yellow 5YR 6/6), grey core (grey 5YR 5/1); smoothed, hard baked. Fine augite, chalc. Diam. est. 20 (S48/4/1).

71. Fr. of lower wall and base, wall handle and lip with adjoining wall of Etruscan amphora. Flat base, tapering ovoid body, outcurving swollen lip, vertical handles on shoulder, round in section. Light brown coarse ware (7.5YR 6/4), smoothed on in and outside, thick greyish black core; chalk, augite some grog; white slip on inside body and bottom sherds. H. est. 44.3; Diam. est. max. 37.2 (S33/1/1). Cf. Gnade 1992a, Fig. XXIII; Pl. 9a.

Large jars (Fig. IX)

72. Fr. of wall/rim of jar. Sloping shoulder; everted lip; thickened rim with rounded thickening on outside; encircling cord decoration on shoulder continuing into finger-impressed decoration on neck. Orange red coarse clay; grey core; smoothed, hard baked; some FeMn. Diam. est. 30 (S33/1/2).

73. Fr. of shoulder of jar with encircling ridge. Pale brown to orange coarse clay (reddish yellow 5YR 7/60, grey core (5YR 5/1); much large augite. Diam. est 40 (S33/1/2).

74. Fr. of shoulder of jar with wide encircling ridge; three encircling grooves on top. Brown-grey coarse clay, pink-orange core; hard baked; much small augite, haematite. Diam. est. 46 (S48/1/2).

75. Fr. of ovoidal jar (6 fitting frs., mended). Sloping shoulder, short everted lip, thickened rim on outside; thin encircling ridge with finger-impressed decoration on shoulder. Red coarse clay; hard baked. Diam. est. 21 (S48/4/1).

76. Fr. of wall/rim of large mug. Incurving wall, thickened rounded rim; encircling cord decoration on shoulder continuing over wide lug (one preserved). Orange brown coarse clay; hard baked; much augite, mica. Diam. est. 21 (S48/4/2).

77. Fr. of rim of jar. Everted lip, concave on inside, convex on outside; slightly rounded rim; wide encircling ridge on inside of neck with circular perforations (14 in total, 3 preserved), rounded edge; orange-brown coarse clay (reddish yellow 5YR 7/6 to 7YR 7/6), grey core; augite, quarts, grog, few haematite. Diam. est. 30 (S297/10/11).

Jars and bowls (Fig. X)

78. Upper part of ovoidal neckless jar. Everted lip; rounded rim with rounded thickening on outside. Orange-brown coarse clay (reddish yellow 5YR 6/6 to reddish grey 5YR 5/2), grey core; smoothed, hard baked; much small augite. Diam. 18 (S46/4/3).

79. Fr. of rim of neckless jar. Everted lip, slightly convex; thickened rim with rounded thickening on outside; encircling ridge on inside on transition neck to lip (broken off). Light brown to reddish brown coarse clay (yellowish red 5YR 5/6), grey core (dark grey 5YR 4/1); blackened on inside, slight wash; some fine augite. Diam. est. 31 (S33/1/3).

80. Fr. of rim/wall of neckless jar. Everted lip; rounded rim with rounded thickening on outside. Red-brown coarse clay; augite, mica. Diam. est. 0.22 (S33/1/2).

81. Fr. of wall/rim of neckless jar. Everted lip; thickened rim on outside. Greyish brown coarse clay, light grey in core; traces of burnish on inside rim; some augite, grog, Diam. est. 18 (S33/1/2).

82. Fr. of wall/rim of jar neckless jar. Outcurving lip; thickened rim, slightly convex. Yellow-white coarse clay (very pale brown
10YR 8/3); smoothed, traces pale brown slip; dense large augite, grog, mica. Diam. est. 18 (S33/1/2).

83. Fr. of wall/rim of jar neckless jar. Outcurving lip; thickened rounded rim, undercut. Orange-brown coarse clay (reddish yellow 5YR 7/6), grey core; smoothed, traces of red slip; augite, grog. Diam. est. 18 (S33/1/2).

84. Fr. of wall/rim of mug; curving wall, sloping inward; thickened rim, flat on top; horizontal rounded lug on shoulder. Pale brown coarse clay (reddish yellow 5YR 7/6), smoothed, blackened on inside; fine augite and mica. Diam. est. 14 (S33/1/1).

85. Fr. of wall/rim of mug; vertical wall, sloping inward; thickened rim toward outside, flat on top; low encircling ridge on shoulder. Orange coarse clay (reddish yellow 7.5YR 7/6), core pinkish grey (7.5YR 7/2), smoothed, hard baked; augite, few FeMn. Diam. est. 18 (S33/1/2).

86. Fr. of wall/rim of mug. Thickened rim, sloping inward; horizontal, triangular lug on shoulder. Dark orange coarse clay, almost totally blackened (red 2.5YR 5/6), dark grey core (2.5 YR 4/0); augite, some grog. Diam. est. 12 (S33/1/3).

87. Bowl. Flaring ringfoot; angular body, almost carinated, near vertical rim, rounded on top. Red orange depurated clay (light red 2.5YR 6/8), grey core, dull dark red slip (red 10R 5/6). H. 6.5; Diam. 19 (S33/1/2).

88. Frs. of foot, wall and rim of bowl. High ringfoot with rounded edge, cylindrical neck, encircling groove on transition to flaring wall; incurving rim, tapering. Brown semi-depurated clay, pale grey core, traces of red slip. H. est. 7; Diam. foot 10; Diam. lip est. 24 (S48/1/2).

89. Fr. of rim of carinated bowl; rounded shoulder, everted lip, concave on outside, thickened rounded rim. Orange coarse clay. Traces of red slip. Diam. est. 19 (S48/1/2).

90. Fr. of wall/rim of bowl. Slightly angular body, near straight rim, slightly concave on outside, rounded on top. Reddish depurated clay; slip varying between brown and orange. Diam. est. 20 (S48/1/2).

91. Fr. of wall/rim of bowl. Curving wall, rounded rim with rounded thickening on outside. Reddish depurated clay, traces of red slip, burned black. Diam. est. 20 (S48/1/1).

92. Foot and fr. of rim of bowl; low flaring ringfoot; rather deep curving bowl; tapering rim. Brown depurated clay, light grey core; traces of red slip. H. est. 7.5; Diam. est. 19 (S48/1/2).

93. Fr. of wall/rim of bowl; curving wall; rounded rim. Reddish depurated clay (light red 2.5YR 6/8), core light grey (5YR 7/1); encircling traces of red slip on outside, blackish on inside (red 10R 5/8). Diam. est. 20 (S33/1/1).

94. Fr. of wall/rim of shallow bowl; curving wall; slightly tapering rim. Reddish depurated clay, grey core; hard baked; traces of red slip on outside. Diam. est. 22 (S48/1/2).

95. Fr. (fitting) of wall/rim of bowl; curving wall; slightly tapering rim; thin encircling groove on outside. Reddish depurated clay, grey core; hard baked; traces of red slip on outside, worn. Diam. est. 24 (S48/1/2).

96. Fr. of wall/rim of shallow bowl; curving wall; incurving rim, tapering; thin encircling groove on outside. Light orange to pink depurated clay, grey core; hard baked; traces of red slip on outside, worn. Diam. est. 20 (S48/1/2).

Fine ware (Fig. XI)

97. Etrusco-Corinthian lydion (many frs.; reconstructed). Hollow conical foot, small thickening in the centre of its underside; low wide body; cylindrical to flaring neck; thin ridge at transition to wide horizontal lip, slightly convex on top; tapering rim. Depurated clay (pink 7.5YR); pinkish grey paint (7.5YR...
6/2) on foot, neck and lip (also inside). H. 10.5; Diam. foot 3; body max. 8.9; mouth 8; th. 0.4 (S20/1/3 - SI 102). Cf. CatCerveteri 1980, 196, fig. 10 (tomb 154).

98. Fr. of wall/rim of Etrusco-Corinthian jar. Sloping shoulder, outcurving rim, thickened and rounded. White depurated clay (pink 7.5YR 8/4). Black painted band on lip; thin encircling red and black bands on shoulder. Diam. est. 10 (S33/1/2).

99. Fr. of wall of Etrusco-Corinthian shape. Slightly curved. Depurated clay, inside pink 7.5 YR 7/4, slip light brown 7.5 YR 6/4; encircling dark brown bands. 5.6 x 5.4 x 0.7 (S46/5/2).

100. Fr. of wall of Etrusco-Corinthian shape. Slightly curved. Depurated clay, surface reddish yellow 7.5 YR 7/6, core white 7.5 YR 8; decoration of black dots, thin line and band. 3.7 x 2.8 x 0.5 (S33/1/1).

101. Fr. of base of Etrusco-Corinthian aryballos (?). Raised base. Depurated clay (pink 5YR 8/4); black-brown and red-brown encircling bands. Diam. 4 (S33/1/2).

102. Base of jug (?). Slightly raised base, slightly concave, slightly projecting rounded edge. Depurated beige-crème clay (pink 7.5YR 8.4); Diam 3.5.


104. Fr. of vertical strap handle of kantharos, oval in section. Black bucchero, high sheen. 2.5 x 2.5 (S46/5/2).

105. Fr. of everted ringfoot. Black bucchero. Diam. 8 (S37/13/1).

106. Jug. Base-ring, handle and some fragments lacking; scar of base-ring, concave bottom, ovoid body ending in ridge, concave neck, faceted rim; vertical strap handle missing. Greyish black clay (imitation bucchero). H. (without base-ring) 12.4-12.6; Diam. max. body 8.8; Diam. mouth 7.2 (S287/1/3).

107. Fr. of body/handle of kantharos. Rounded body, double-reeded handle on shoulder. Dark grey clay, grey core (imitation bucchero). Diam. max. body 9.4 (S48/1/2).

108. Fr. of base/wall of kantharos (?). Conical base, concave underneath. Greyish black clay, core light grey (imitation bucchero). Diam. 2.3 (S33/1/2).

109. Fr. of vertical double-reeded handle of kantharos. Greyish black clay (imitation bucchero). H. 4.7; Diam. 1.6 (S33/1/3).

110. Large rim/neck fragment of table amphora of Laconian type. Cylindrical flaring neck, rounded rim, thickened on outside; encircling tapering ridge at junction handle and neck; thin encircling ridge between tapering ridge and rim; vertical strap-handle attached below rim. Depurated clay, reddish yellow to very pale brown depurated (7.5YR 7/6); tiny white and red inclusions, some mica and organic particles. Dull firm black glaze on inside; traces on rim and on top of handles; neck probably spared. H. pres. 6; Diam. mouth 14 (S297/11/6). Cf. Pelagatti 1990, figs. 38-41.


112. Fr. of wall of cup (kylix). Concave lip and offset rim on interior (S48/2). Cf. Gravisca 1993, coppe, type 12, esp. no. 42, pls. 5-6.

113. Fr. of wall/rim of small footed bowl (kalyx). Curving wall; rounded rim with rounded thickening on outside. Depurated beige-pale brown clay (pink 5YR 7/4); some crushed limestone, mica. Blueish black glaze on rim and body, worn; spared-out band on lower part of rim and transition to body. Diam. 14 (S33/1/2).
114. Fr. of wall/rim of small footed bowl (kalyx). Curving wall; rounded rim with thickening on outside, bevelled. Depurated beige clay, very soft. Black glazed band below rim and on inside bowl, worn; spared-out band on lower part of rim and transition to body. Diam. 10 (S48/1/1).

115. Lower part of jug (?). Low everted ringfoot. Depurated clay (reddish yellow 5YR 7/6), grey in core; dull brownish black glaze with reddish spots due to bad firing. Diam. 7 (S46/4/3).

116. Fr. of ringfoot of small cup. Depurated pink clay (5YR 7/4); black-glazed, outside ringfoot spared; diluted painted gloss on underside foot. Diam. 7 (S33/1/1).

117. Foot of bowl. Ringfoot with thickened edge. Depurated soft pale brown clay (pink 5YR 8/4); firm dull black glaze on inside and out; underside of basering and bottom spared; on bottom black dot and circle; vague traces of red gloss. Diam. 6.8 (S48/1/2).

118. Small footed bowl (kalyx). Flaring ringfoot, concave underneath; convex basin; thickened rim with rounded thickening on inside. Orange clay (reddish yellow 5YR 7/8), with tufa particles, few haematite. H. 5.9; Diam. foot 6; Diam. mouth 10 (S37/13/1). Cf. Ginge 1996, type C, fig. 29.

119. Small footed bowl (kalyx). Almost complete foot and half of bowl and rim. Everted ringfoot with rounded edge, concave underneath; convex basin; convex rim, thickened and undercut on outside. Depurated clay (yellowish red 5YR 5/6). H. 5.1; Diam. foot 5.5; Diam. mouth 9 (S287/3/4). Cf. Ginge 1996, type C, fig. 29.

120. Fr. of wall/rim of shallow bowl. Strongly thickened rim, convex on top, undercut on outside; low encircling bandshaped thickening below rim. Soft, powdery depurated clay (very pale brown 10YR 8/3). Diam. est. 15 (S46/4/3).

121. Fr. of wall/rim of small bowl (kalyx?). Rounded rim with thickened thickening on outside. Powdery depurated white clay. Diam. est. 11 (S48/1/2).

122. Fr. of low ringfoot. Depurated white clay. Diam. 11 (S46/11/1).

123. Foot of bowl. High flaring foot; wide base ring with thickened rounded edge. Powdery depurated white clay. Diam. 9.5 (S48/1/2).

124. Foot of small cup. Flaring foot with vertical edge; concave underneath. Depurated, white clay. Diam. 5 (S48/1/1).

125. Foot of bowl. Flaring foot with wide basering, concave underneath; near vertical edge; Depurated clay, pale brown. Diam. 7.8 (S48/1/2).

**Topstratum Section III (Figs. XII-XIII)**

126. Fr. of foot and floor of basin with spreading walls. Low everted ring-foot with heavy finger-tip imprints along edge. Red coarse clay with coarse sand and some augite, traces of wash. Diam. est. 0.30. (S 46/1/8).

127. Fr. of wall/rim of hemispherical basin. Thickened rim projecting on either side, slightly convex lip, sloping downward; below rim encircling finger-impressed cord-decoration. Orange coarse clay, grey core (reddish yellow 5YR 7/8, core light grey 5YR 7/1), much augite, large and fine particles. Diam. est. 40 (S46/1/3). Cf. Torelli/Threipland 1970, fig. 17, C.

128. Fr. of wall of basin with spreading walls. Rounded rim, thickened on outside; below rim encircling finger-impressed cord-decoration. Pale brown to orange coarse clay with much
SELECTION OF FINDS

fine augite (reddish yellow 7.5YR 7/6), traces of red brown slip on inside. Diam. est. 20 (S46/2).

129. Fr. of wall/rim of hemispherical basin. Very large thickened rim, projecting on either side, rectangular profile on outside, rounded on inside, flat on top. Orange brown coarse clay, inside smoothed (burned). Diam. est. 54 (S46/2).


133. Fr. of rim/wall of large jar with convex wall narrowing towards non-distinct lip with rounded rim; on shoulder wide encircling everted flange, straight rim with rounded thickening on the outside. Brown orange coarse clay, traces of secondary burning, augite, grog, emery paper texture (reddish yellow 5YR 7/8). Diam. est. 32 (S46/4).


136. Large fr. of upper part of ovoidal jar. Everted lip, thickened rounded rim. Greyish brown coarse ware, black inside, some fine augite, smoothed. Diam. est. 11 (S31/cl.)

137. Large fr. of globular-ovoidal jar. Everted lip, rounded rim with rounded thickening on outside. Orange brown coarse clay, very gritty, dense fine augite, large grog (Pink 5YR 7/4). Diam. 15 (S46/1).

138. Upper part of small ovoidal jar. Short outcurving lip, slightly thickened rim, convex on top. Brown-black coarse clay, fine augite, blackened on inside. Diam. 10 (S46/1/5).

139. Fr. of rim of jar. Short everted lip, thickened rim, almost vertical in profile, slightly sloping inward, undercut. Orange coarse clay (reddish yellow 7.5YR 8/6), smoothed, hard fired. Diam. 18 (S46/1/3).

140. Fr. of rim of jar. Everted lip, slightly thickened rim, convex on top. Orange brown coarse clay, few fine augite, fired hard. Diam. est. 21 (S46/2/46).

141. Fr. of neck/rim of jar. High everted lip, rounded rim with rounded thickening on outside. Pale brown coarse clay, very fine augite, small grog, small mica (reddish yellow 7.5YR 7/6). Diam. est. 7 (S46/2).

142. Fr. of rim of jar. Everted lip, convex rim with thickening on outside. Pale orange coarse clay, grey core, small augite, small white stones, emery paper texture. Diam. est. 17 (S31/1).

143. Fr. of rim of jar. Everted lip, convex rim with thickening on outside. Orange coarse clay, grey core, small augite. Diam. est. 16 (S31/1).

144. Large fr. of ovoidal jar. High everted lip, thickened rim, convex on top. Pale brown coarse
clay with grey core, few inclusions, fired hard. Diam. 14 (S46/1/1).

145. Fr. of shallow bowl. Curving wall, rounded rim. Orange depurated clay (reddish yellow 5YR 7/6), core grey (light grey 5YR 7/1); red slip (red 10R 5/8); flaked. Diam. est. 12 (S46/1/7).

146. Fr. of deep bowl. Curving wall, outcurving rim, tapering. Depurated clay, white; Diam. est. 11 (S46/2).

147. Fr. of small footed bowl (kalyx). Thickened rounded rim. White depurated clay (very pale brown 10YR 8/4 to 8/3), soft; traces of white slip. Diam. est. 11 (S46/2).

148. Small cup. Complete. Base-ring; low cup with spreading wall; horizontal rim with thickened rounding on outside. Crème depurated clay (very pale brown 10YR 8/4); red-brown slip on inside and out; bottom (?), edge of base-ring and of rim spared. H. 3.5; Diam. base 7; mouth 9.5 (S46/1/1). Cf. Gnade 1992a, 167b.5, Fig. XXIV, Pl. 10; Ging 1969, type D, Fig. 29.

149. One-handler (handle and foot missing). Curving body; slightly incurving rim, rounded. Depurated clay (Pink 5YR 7/4); dull, blueish black glaze on outside (inside spared), very worn. H. pres. 3.5; Diam. 11.5 (S46/1/4). Cf. Gnade 1992a, 35?, Fig. IV.

150. Low ringfoot of large shape (skyphos or krater?), base-ring with near rectangular profile. Depurated orange soft clay (reddish yellow 5YR 7/6), lustrous black gloss on in-and outside, bottom spared. Diam. 15 (S46/1/4).

151. Fr. of base of small jar, slightly concave.

152. Lower part of jug (?). Distinct flat base with projecting facetted edge. Orange depurated clay (reddish yellow 5YR 7/8). Diam. 4.6 (S46/1/4).

153. Fr. of wall/rim of bowl. Slightly angular body, tapering rim. Depurated orange clay. Diam. 20 (S31/5).

154. Fr. of rim of bowl. Incurving rim, slightly thickened, rounded. Depurated clay; traces red slip. Diam. 19 (S46/6).

155. Upper part of bowl. Curving wall, tapering rim. Depurated clay, bright orange. Diam. 18 (S46/6).


157. Fr. of bowl. Curving wall, thin outcurving rim, rounded on top. White depurated clay (Pink 7.5YR 8/4). Diam. est. 11 (S31/10).

158. Fr. of neck. Outcurving lip, slightly thickened rim, straight in profile, sloping inward. Depurated pale orange clay (Reddish yellow 7.5YR 8/6), pale grey core (White 7.5YR 8/1). Diam. 14 (S46/6/2 - P 3080).

159. Fr. of neck or foot (?). Spreading wall, everted lip, tapering rim. Orange coarse clay, much augite. Diam. est. 0.24 (S31/10/1).

160. Upper part of jug with trefoil mouth (two fitting fragments). High rounded shoulder, high-spouted trefoil mouth; White depurated clay. H. max. pres. 15 (S46/5; S46/8/1). Cf. Gnade 1992a, 177a.3, Fig. XIX, Pl. 7a.

161. Various frs. of body, shoulder, lip and handles of jar with horizontal handles. Globular body, sloping shoulder, short neck, short everted lip, rounded rim; encircling thickening on transition neck to shoulder; two horizontal handles on shoulder, round in section. Pale brown coarse clay (7.5 YR 7/6), orange core, with many inclusions: some augite, stones, grog. Diam. 17 (S278/2/5).

Topstratum in eastern part of excavation (Figs. XIV-XV)
162. Many fr. of base, body, shoulder and lip of thin-walled jar. Flat base, globular body, no neck, everted lip, thickened rim sloping inward. Reddish-yellow coarse clay, grey core, few small augite, mica, hard baked. H. est. 26; Diam. base 11; Diam. lip 14 (S298/100/1&2).

163. Many fr. of base, body, shoulder and lip of thin-walled jar. Flat base, globular body, no neck, almost vertical lip, thickened rim rounded on outside. On shoulder thin encircling finger-impressed cord decoration. Bright orange clay, very coarse, grey core, many small and some large augite. H. est. 24; Diam. est. base 12; Diam. lip 19 (S298/100/1&2). Cf. Bouma 1996, II, decorated jar type IIIa, Pls. XLIX-LII.


165. Large fr. of shoulder of jar with two encircling ridges. Semi-depurated orange clay (reddish yellow 5YR 7/8-6/8), light orange in core, few augite. 6 x 6 x 0.8; Diam. est. 20 (S280/2/2).

166. Fr. of lower part of body of jar. Ovoidal body; encircling finger-impressed cord decoration. Pale brown coarse clay (reddish yellow 7.5YR 7/6), core dark grey in places, smoothened, hard baked; some augite, haematite. 12 x 13 x 1 (S297/cl.). Cf. Bouma 1996, II, decorated jar type IIIf, Pl. LIII.

167. Fr. of wall of thin-walled jar with thin encircling finger-impressed cord decoration. Orange coarse clay (reddish yellow 7.5YR 7/8), much augite, sand. 4 x 6 x 0.2 (S280-297/1/1). Cf. Bouma 1996, II, decorated jar type IIIa, Pls. XLIX-LII.

168. Two fitting fr. of wall of jar with thin encircling finger-impressed cord decoration. Brown coarse clay, burned. 4 x 6 x 0.2 (S297/1/1). Cf. Bouma 1996, II, decorated jar type IIIa, Pls. XLIX-LII.


170. Fr. of wall/rim of deep basin; flaring wall; thickened horizontal rim, encircling ridge below rim, round in profile. White coarse clay (reddish yellow 7.5YR 8/6), much augite. Very worn. Diam. est. 40 (S 280/3/2).

171. Fr. of architectural terracotta, Satyr and Maenad antefix. Part of arm of Maenade, with sleeve. 8 x 6. White coarse clay (very pale brown 10YR 8/4), much augite; very worn (S280/2/2).

172. Fr. of rim of jar. Everted lip, thickened rim, rounded on outside. Orange brown coarse ware with grey core, much augite. Diam. est. 32 (S280/1/3).

173. Fr. of rim of jar. High everted lip, slightly thickened rim, slightly rounded on top. Orange brown coarse clay (reddish yellow 5YR 7/8), core grey, fine augite. Diam. est. 30 (S280/200/cl.).

174. Fr. of rim of jar. High everted lip, thickened rim, rounded on outside. Orange brown coarse clay (reddish yellow 7.5YR 6/6), inside burned black, augite. Diam. est. 24 (S280/200/cl.).

175. Fr. of rim of jar. Everted lip with thickened rim, rounded on outside. Brown coarse clay (light reddish brown 5YR 6/3; core reddish yellow 5YR 6/8), orange core, black on inside. Much augite. Diam. 14. (S280/1/1).

176. Fr. of rim of jar. High everted lip, slightly thickened rim, near straight on outside. Brown coarse clay (light brown 7.5YR 6/4). Diam. est. 18 (S280/1).
177. Fr. of rim of jar. Outcurving lip, tapering rim with almond shaped thickening on outside. Light brown coarse clay (pink 7.5YR 7/4), grey core (7.5YR N6); many inclusions: fine and some large augite, chalk. Diam. est. 23 (S280/1/3).

178. Fr. of rim of jar. Outcurving lip swollen lip, tapering rim. Bright orange coarse clay with grey core. Diam. est. 18 (S280/1/3).


180. Upper part of jar. Everted lip with slightly thickened rim, straight on outside. Orange brown coarse clay. Diam. 10 (S 280/2/1).

181. Fr. of high flaring foot, slightly thickened edge, bevelled. Bright orange semi-depurated clay, grey in core (reddish yellow 5YR 7/8). H. max. pres. 13; Diam. 7.

182. Upper part of small footed bowl. Strongly incurving wall, rounded rim. Depurated brownish clay, traces of slip; H. max. pres. 4; Diam. 10 (S287/3/3).

183. Fr. of foot of bowl. Everted base-ring, tapering, convex on inside. Bright orange semi-depurated clay (reddish yellow 5YR 7/8), grey in core. Diam. 65; Diam. est. lip 10 (S280/2/1&2).

184. Fr. of miniature cup, full profile. Low base-ring with rounded edge; shallow cup; slightly incurving rim, thickened and rounded. Depurated grey clay (very pale brown 10YR 8/3), powdery; black glaze, dull. Est. Diam. foot 3-4; est. Diam. lip 6-7 (S 280/3/3). Morel type 2783-2787/Lamboglia type 24(-25).

185. Fr. of lower part of cup. Very thin wall. Thin everted ringfoot. Depurated clay, soft (5YR 7/6-7/8); black glaze, firm, but very worn. Diam. foot 5; th. wall 0.25 (S309/13/1). Cf. Morel type 2783-4/Lamboglia 27.

186. Fr. of stem of goblet (?). Orange coarse clay (reddish yellow 7.5 YR 8/6; core pinkish white 7.5 YR 8/2), beige/grey in core. H. max. 4; Diam. 33 (S280/2/1&2).

187. Small jar with horizontal handles. Complete, handle broken off in three parts. Flat distinct base, globular body, vertical slightly outcurving lip, flat rim; two horizontal handles on shoulder, reaching level of rim. Depurated pale orange clay, very soft. H. 12.7; Diam. base 7.2; diam. mouth 9.2 (ST 2 - 2; Fig. 20).

188. Bowl. Disintegrated into worn-out sherds. Slightly everted base-ring, slightly convex underside of bottom; shallow bowl with curving wall; rounded rim. Depurated pinkish to pale-brown clay. H. est. 4.7; Diam. base-ring 8; Diam. rim 15 (ST 2 - 1; Fig. 20).
ABBREVIATIONS AND BIBLIOGRAPHY

Periodicals have been abbreviated according to the indications of the Archäologischer Anzeiger 1997, 4, 611-619. In addition, the following have been used:

- AIONArch: Annali del Dipartimento di studi del Mondo classico e del Mediterraneo antico. Istituto Universitario Orientale. Sezione di archeologia e storia antica
- ARevCambridge: Archaeological Review from Cambridge
- CAH: Cambridge Ancient History
- PCIA: Popoli e civiltà dell'Italia antica, Rome 1974-1984
- QuadAEI: Quaderni del centro di studio per l'archeologia etrusco-italica
- Terra dei Volsci: Terra dei Volsci. Annali del Museo Archeologico di Frosinone

- Ampolo 1984a: C. Ampolo, Il lusso nelle società arcaiche, Opus 3 (20), 469-76.
- Ampolo 1984b: C. Ampolo, Il lusso funerario e la città arcaica, AION ArchStAn 6, 71-102.

- Barnabei 1896a: F. Barnabei, Conca, NSc, 69.
ABBREVIATIONS AND BIBLIOGRAPHY


Bedini *et al.* 1978  A. Bedini, Abitato protostorico in località Acqua Acetosa Laurentina, *QuadAEI* 1, 30-34.


ABBREVIATIONS AND BIBLIOGRAPHY


Blake 1968  M.E. Blake, Ancient Roman Construction in Italy from the Prehistoric Period to Augustus, Washington 1968.

Bloesch 1940  H. Bloesch. Formen attischer Schalen, Bern.


Brizio 1895  E. Brizio, Necropoli di Novilara, MonAnt 5, 85-438.


Carafa 1995  P. Carafa, Officine ceramiche di età regia. Produzione di ceramica impasto a Roma dalla fine dell'VIII alla fine del VI secolo a.C., Rome.

Castagnoli 1963  F. Castagnoli, Satrico, L'Universo 43, 505-518.

Castagnoli 1975  F. Castagnoli, Lavinium II. Le tredici are, Rome.


ABBREVIATIONS AND BIBLIOGRAPHY


Colonna 1963-64  G. Colonna, Area sacra di S. Omobono. La ceramica di impasto posteriore agli inizi dell'età del ferro, *BCom* 79, 3-33.


Colonna 1984a  G. Colonna, La nuova iscrizione di Satricum, *QuadAEI* 8, 104-106.


Cornell/Lomas 1997  T.J. Cornell, K. Lomas (eds.), *Gender and Ethnicity in Ancient Italy*, London.
ABBREVIATIONS AND BIBLIOGRAPHY


Devoto 1968 G. Devoto, Gli antichi italici, Florence.


Fortunati 1989 F.R. Fortunati, Il tempio delle Stimmate; Il materiale votivo, in Museo Civico di Velletri (Cataloghi dei musei locali e delle collezione del Lazio, 6), Roma 57-87; 89-104.


Gatti 1987 S. Gatti, Anagni: Rinvenimenti di un deposito votivo, QuadAEI 14, 253-258.


Gatti 1993 S. Gatti, Nuovi dati sul santuario Ernico di S. Cecilia, QuadAEI 21, 301-310.


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ABBREVIATIONS AND BIBLIOGRAPHY


Guaitoli 1984  M. Guaitoli, *Urbanistica*, *QuadAEI* 8, 364-381.


ABBREVIATIONS AND BIBLIOGRAPHY

Lugli 1957  G. Lugli, La tecnica edilizia romana con particolare riguardo a Roma e Lazio, Rome, I.
Mengarelli 1898  
R. Mengarelli, Nuove scoperte nella tenuta di Conca nel territorio dell’antica città di Satricum, NSc, 167-171.

Mengarelli 1905  
R. Mengarelli, [contribution without title on the huts of Satricum], in G. Pinza, MonAnt 15, 476-487.

Miller 1995  
M. Miller, Befestigungsanlagen in Italien vom 8. bis 3. Jahrhundert vor Christus, Hamburg.

Morris 1987  

Morris 1992  
I. Morris, Death-ritual and Social Structure in Classical Antiquity, Cambridge.

Müller-Karpe 1959  
H. Müller-Karpe, Vom Anfang Roms, Heidelberg.

Müller-Karpe 1962  
H. Müller-Karpe, Zur Stadtwerdung Roms, Heidelberg.

Müller-Zeis 1994  
R. Müller-Zeis, Griechische Bauopfer und Gründungsdepots, Saarbrücken.

Musti 1992  

Nijboer 1997  

Nijboer et al. 1995  

Nijboer 1998  
A.J. Nijboer, From Household Production to Workshops: Archaeological Evidence for Economic Transformations, Pre-monetal Exchange and Urbanisation in Central Italy from 800-400 BC, (PhD University of Groningen), Groningen.

Oakley 1997  

Oakley 1998  

Ogilvie 1965  
R.M. Ogilvie, A Commentary on Livy 1-5, Oxford.

Onorati 1998  
M.T. Onorati, Frosonone: area archeologica in viale Roma, Terra dei Volsci 1, 37-58.

Östenberg 1975  
C.E. Östenberg, Case etrusche di Acquarossa, Rome.

Pallotino 1991  
M. Pallotino, A History of earliest Italy, London.

Pallottino 1993  
M. Pallottino, Origini e storia primitiva di Roma, Milan.

Parise Badoni 1980  
F. Parise Badoni, Scavi e scoperte: Alfedena, in StEtr 48, 576-584.

Parise Badoni et al. 1987  

Parise Badoni/Ruggeri Giove 1980  

Peroni 1979  

Pohl/Torelli 1973  


Quilici 1994  L. Quilici, Le fortificazioni ad aggere nel Lazio antico, Ocnus II, 147-158.


Rasmussen 1979  T.B. Rasmussen, Bucchero Pottery from Southern Etruria, Cambridge

Ridgway 1979  D. and F. Ridgway (eds.), Italy before the Romans. The Iron Age, Orientalizing and Etruscan periods, London.


Rix 1992  H. Rix, La lingua dei Volsci. Testi e parentela, QuadAEI 20, 37-49.


Rizello 1998  M. Rizello, Il medio corso del fiume Liri: la dinamica degli insediamenti sorani dell’età del ferro al periodo arcaico, in Terra dei Volsci 1, 7-36.


Smith 1999  C.J. Smith, Settlement, burials and religion at Satricum, JRA 12, 453-475.


Stibbe 1978  C.M. Stibbe, Satricum, QuadAEI 1, 56-59.


Stibbe 1981  C.M. Stibbe, Nuovi e vecchi dati su Satricum, QuadAEI 5, 305-309.

Stibbe 1983a  C.M. Stibbe, La quinta campagna di scavo dell’Istituto olandese di Roma a Satricum, QuadAEI 7, 48-53.

Stibbe 1985  C.M. Stibbe, Satricum en de Volsken, Meppel.

Stibbe 1987  C.M. Stibbe, Satricum e Pometia: due nomi per la stessa città?, MededRom 47, 7-16.


Von Duhn 1924  F. von Duhn, Italische Gräberkunde I, Heidelberg, 412-413, 530-533.


Waarsenburg 1995b  D.J. Waarsenburg, Nuove ricerche sulla necropoli nordovest di Satricum, QuadAEI 24, 583-590.


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