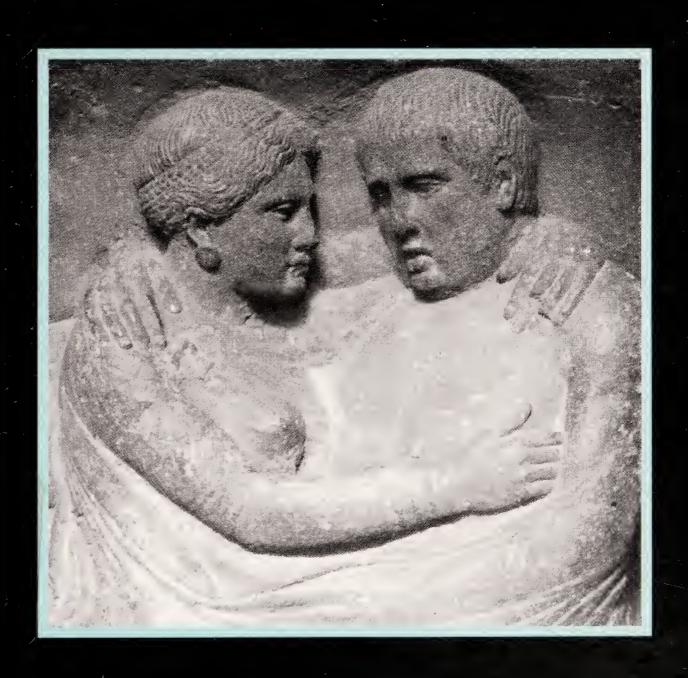
# The Etruscans

Graeme Barker and Tom Rasmussen





# Introduction

Most people despise everything B.C. that isn't Greek, for the good reason that it ought to be Greek if it isn't... Myself, the first time I consciously saw Etruscan things, in the museum at Perugia, I was instinctively attracted to them. And it seems to be that way. Either there is instant sympathy, or instant contempt and indifference.

D.H. Lawrence (1932) Etruscan Places

This is a book about a remarkable society and the landscape that shaped and sustained it. From the eighth century BC, the Etruscan civilization flourished in Etruria, the region on the western side of central Italy bounded on the north by the Arno and on the south and east by the Tiber (fig. 1). In their heyday in the seventh and sixth centuries BC, the Etruscans were the major power in Italy and disputed the hegemony of the central and western Mediterranean with the Greeks. Greek culture profoundly affected Etruscan culture, and the Etruscans in turn had a profound effect on the early republic of Rome as it grew up on their southern boundary. Between the fourth and first centuries BC, however, the Etruscans gradually yielded their regional hegemony to Rome's aggrandizing power in the face of a combination of military force and cultural assimilation.

The location of the Etruscans in central Italy on Rome's very doorstep, and their contemporaneity with the Greeks and early Romans, are therefore of great significance for the cultural history of the Mediterranean. This history, however, has usually been viewed almost entirely in Greek and Roman terms, and the Etruscan contribution to it is not easy to define, primarily because there are very few Etruscans about whom anything is known other than their name, so the part they played must be, for us today, a somewhat impersonal one. Etruscan archaeology, on the other hand, is very rich and varied and provides an extremely dense and complex body of data for interpretation, one that becomes denser with every year of archaeological research.

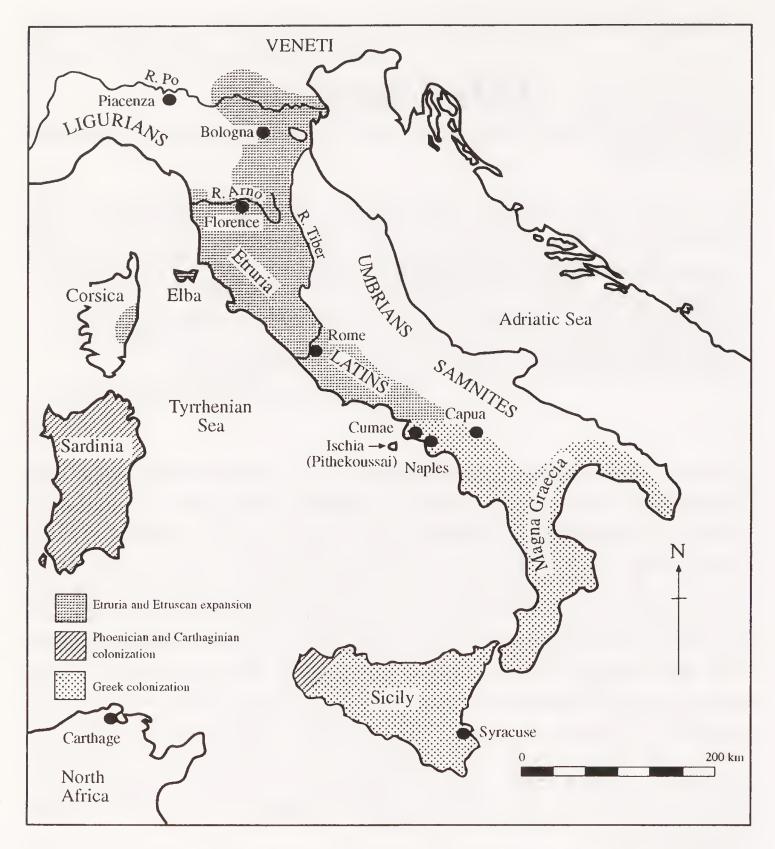


Figure 1 Italy, showing Etruria and the adjacent regions affected by the Etruscans. (After Bonfante, 1990: 7)

Until the early nineteenth century, interpretation of the material remains was blighted by serious misconceptions, such as the view that all painted pots found in Italy were made by Etruscans, an argument accepted by the potter Josiah Wedgwood who founded his own 'Etruria' factory in Staffordshire in 1769 to produce Greekstyle vases; or the view promulgated by the draughtsman Giovanni Battista Piranesi that Etruscan buildings were the inspiration behind both Roman and Greek architectural forms. The combination of scientific interest and wild speculation which flavours much thinking

of this period originated with a work that focused on the literary references to the Etruscans in the classical authors, the Scotsman Thomas Dempster's *De Etruria Regali*, eventually published in 1723–4. But it was also a period that witnessed the first serious publications of newly formed museum collections, by A.F. Gori in the years around 1750.

It is all too easy to ridicule early theories with the benefit of hindsight, but it is something of a relief to turn to the sober but revolutionary topographical studies of the next century, such as Luigi Canina's Antica Etruria Marittima of 1846-51. In the same vein is the book that did most to bring the Etruscans to the English public's attention: George Dennis was an erudite and indefatigable traveller whose office job in London and later as consul in Palermo was clearly far from onerous, and his Cities and Cemeteries of Etruria came out in 1848, with subsequent editions in 1878 and later. The French, meanwhile, could read L'Étrurie et les Étrusques (1862-4) by A. Noël des Vergers, co-discoverer of the François Tomb at Vulci. Knowledge about the Etruscans and their culture was soon widely disseminated beyond Italy itself, though the images of them carried in some minds seem remarkably one-dimensional. In 1871 Friedrich Nietzsche, by profession a classical philologist, could dismiss them in a single phrase as the 'gloomy (schwermütigen) Etruscans'.1

Ancient literary references to the Etruscans are finite in number; but the history of scientific excavation in Etruria now goes back at least a century, and in that time archaeological research has expanded at an exponential rate. Many earlier books on the Etruscans established a framework from the Greek and Roman sources and fleshed out the skeleton, as it were, with such archaeological evidence as existed. A few years ago, however, Nigel Spivey and Simon Stoddart demonstrated that the archaeological evidence could be used to write a very different 'archaeological history'.<sup>2</sup> The present book is an attempt to strike a balance by drawing together the disparate evidence of archaeology and history.

The relationship between archaeological and historical data is a critical area of debate for scholars of all periods known to us by material remains and written records, from the first civilizations of Mesopotamia and Egypt to the Industrial Revolution. There was a time, not so long ago, when the relationship between history and archaeology could be characterized – or at least caricatured – as

<sup>1</sup> Nietzsche, 1956: 30

<sup>2</sup> Spivey and Stoddart, 1990

simple: archaeology was an expensive way of telling historians what they knew already (mostly mundane things like the facts that people lived in houses, used pots, ate food and so on) and if it indicated anything at variance with the written sources, it was obviously wrong! More recently, as the two disciplines have learned to work closer together, historians and archaeologists have tended to describe the relationship as equal: archaeological data and historical data, the argument runs, are neither better nor worse than each other, just different, giving different insights into the past. Today, however, many scholars would say that the 'archaeology versus history' debate is in many respects redundant: history and archaeology are more a single study of the human past than different approaches to it. All our sources, whether written records, inscriptions, monuments or excavated data, are 'archaeology' in the sense that they comprise a single source of material culture that has survived today from the past in complex ways (what archaeologists refer to as 'taphonomic processes') producing numerous biases of survival, preservation and interpretation. At the same time, all these sources are signatures of past human behaviour, and the goal of all those studying them should be the writing of 'history', the holistic study of past human behaviour in all its manifestations - political, demographic, cultural, social, economic, technological, ideological or whatever.

The Etruscans were different from other contemporary societies in their language, attitudes and customs. At least that is what we are told by Roman and especially by Greek writers, and we ourselves may discern other differences as we study the archaeological material - differences, for example, in the materials favoured by artists and craftsmen, in provision for the dead or in the choices of site for settlement. But, as so often when people talk about outsiders and foreigners, the Greeks tended to exaggerate the differences, whereas modern commentators have fluctuated between exaggerating and minimizing them. What is obvious is that many of the outward expressions of Etruscan culture are Greek-inspired - the essential form of temples, the iconography of the major gods, styles of figurative art and the mythological content of many visual narratives. In certain ways the two cultures run so closely parallel that Etruscan and Greek scholars speak in similar terms of stages of development, from 'archaic' to 'classical' and thence to 'Hellenistic' (see below).

Etruscan writing begins some time before 700 BC, which means that in large parts of this book we are dealing with pre-literate

society. Even after sections of Etruscan society became literate, however, none of the surviving texts that they produced addresses a wider audience than those few who needed to know the facts being imparted. The texts are either simple statements of fact or instructions about ritual. It is impossible, then, to write a text-based history of the Etruscans. What we are confronted by is a long era of 'protohistory', where the main approach has to be through archaeology and any historical information must be gleaned from other literate societies writing about them. It is an era that stretches back to the first half of the eighth century BC, when the first encounters between Greeks and Etruscans took place. Before then, all is prehistory.

In the strict chronological sense, 'Etruscan' is used by archaeologists to denote the cultural era that began with a distinct set of archaeological phenomena which characterize the 'Orientalizing' period, from about 700 BC. This is, as it happens, at about the time of the earliest Etruscan writing. Not so long ago, the orthodox view held that it was at this time that the Etruscans first appeared on the scene in Italy. However, as chapter 2 describes, most people do not hold this opinion today, but rather the view that Etruscan-speakers must have been in Etruria from long before in prehistory. Exactly when they emerged is an unanswerable question and should worry no-one unduly. (Scholars are similarly uncertain about who the first Greeks were, or the first English for that matter.) Two points are indisputable, however: first, that the origins of the Etruscans must be sought primarily in their prehistoric antecedents in Etruria, not elsewhere; and second, that the Etruscan civilization did not develop in isolation, but was profoundly influenced by contemporary peoples such as the Greeks.

The histories of Etruria and Greece have many parallels (and were frequently intertwined), as the often identical cultural terms used by historians and archaeologists indicate. The Apennine Bronze Age of Etruria which developed during the second millennium BC was roughly contemporary with the Minoan and Mycenaean civilization of Greece and the Aegean, and there is in fact evidence for some kind of trading relationship between Etruria and the Aegean at this time. With the destruction of Mycenae and Troy in about 1100 BC, Greece entered its so-called Dark Age, a period of petty chiefdoms contemporary with the Villanovan iron age chiefdoms of Etruria. In both regions, city states then developed in the eighth and seventh centuries BC. In both regions, too, the seventh century is termed the 'Orientalizing' period, and the city states continued to flourish through the sixth century BC, the 'archaic' period. The

Persian invasion of Greece was first halted with a disastrous defeat at the sea battle of Salamis in 480 BC, and it was also Greek naval expertise that put an end to Etruscan expansion in Italy in 474 BC at the battle of Cumae, both events conveniently marking the end of the archaic period. The fifth century BC was characterized in Greece by the extraordinary intellectual and artistic flowering of classical Athens, but the same period in Etruria witnessed the continued retreat of Etruscan power, now before the infant republic Rome, with the first Etruscan city, Veii, falling in 396 BC. The Hellenistic period in Greece is conventionally dated from the death of Alexander in 323 BC to Augustus' rise to power at Rome in 31 BC, but the term is also used in Etruria to define the last three centuries BC, the period of Roman conquest and acculturation.

It is useful here to name the periods, with their dates, as they are used in this book, because the chronologies vary somewhat in the literature. The dates are only a rough guide, and the onset of the later periods will in any case differ slightly in different parts of Etruria. All dates are BC unless otherwise stated (as in the rest of the book):

Early and Middle Bronze Age	2000-1300
Late and Final Bronze Age	1300-900
Early Iron Age (Villanovan)	900-700
Orientalizing	700570
archaic	570-470
classical	470-300
Hellenistic	300–31

In the case of ancient Greece, labels such as 'archaic', 'classical' and 'Hellenistic' denote defined historical periods as well as visual styles. For Etruscan studies they are also useful for denoting both periods and styles, but the periods are more arbitrarily defined and the Etruscan styles do not display quite the same development.<sup>3</sup> There is no lack of invention in the linear stylizations and decorative patterns of the Etruscan archaic style, and the Etruscans were also attracted by the energy and theatricality of the Greek Hellenistic style. But though they were aware of the Greek classical style, and indeed worked within its formulae for increased naturalism and idealization, it seems to have inspired them rather little: there is little in the way of a Greek High Classical equivalent in Etruria. When it does occur, as in temple decorations at Orvieto and Falerii,

it is in isolated instances (at least as far as present finds suggest) rather than as the result of a continuing tradition. Nor could it have been otherwise: only in Greece did the classical style evolve as a process of internal logic.<sup>4</sup>

These art-historical considerations are mentioned here because they have in the past influenced views about the Etruscans, and to a certain extent still do, and always to their detriment. The classical style – with its historically based connotations of excellence and perfection<sup>5</sup> and hence of the imperfection of other and especially pre-classical styles – holds a central place in the public estimation of the Greek achievement but has not at all the same centrality for the Etruscan. 'Why can't a woman be more like a man?', intoned Noel Coward, and there is a common perception (without any of Coward's humour attached to it) that somehow the Etruscans would be more acceptable if only they had been more like the Greeks.

We would do better to think in wider perspectives and reflect that of the many peoples with whom the Greeks came into contact and who learned from them forms and styles of art and architecture, it was the Etruscans who appropriated them most systematically and who, alone of those contemporary with the Greeks, created by these and other means a whole visual culture that lasted many centuries. But Etruria was never a Greek cultural outpost. This is true even though in at least some cases - and leaving Greek exports to Italy aside - it was Greeks who were involved in executing figurative monuments in Etruria; certainly they helped to shape the painted pottery industries, and their presence has been postulated in the tomb-painting workshops, the production of architectural terracottas and work in other media. Although it would be intriguing to know exactly which tomb-paintings and other works Greek craftsmen were responsible for, it would have no bearing on the essential point that these things were made to conform to Etruscan taste in the unique environment of central Italy and are firmly part of the culture of this region.

In many ways art, complex artefacts, and inscribed objects are mere surface froth where the totality of Etruscan society is concerned. They may tell us about the concerns and tastes of an elite section of that society and about its relations with the outside world, they may make for interesting and colourful displays in museums, but they are hardly likely to have been the concern of the bulk of

<sup>4</sup> Brendel, 1995: 258

<sup>5</sup> Ridgway, 1981: 2

the population. It is generally agreed that one of the ways by which the elites were enabled to prosper was through the control of metal-processing, and so there has in the past been much interest in Etruria's mineral wealth (which no study can ignore – including this one). But it is becoming increasingly clear that in the large spaces between the great cities there were farming communities of villages, hamlets and isolated dwellings of all kinds and that most Etruscans lived agricultural lives far removed from the spin-offs of the extractive industries. Only in recent decades has this population been shown, through painstaking survey and excavation, to have its own archae-

ological presence.

This book, then, begins with the landscape, explaining how it has changed over great periods of time and how ancient landscapes may be glimpsed through the modern (chapter 1). After an overview of Etruscan prehistory (chapter 2) we move on to consider first the facts and prejudices offered by Greek and Roman writers and then the scope of Etruscan writing, while assessing the evidence they provide for political and social structures (chapter 3). There follow chapters on material culture and its transformations as a consequence of contact with outsiders (chapter 4) and on the various types of settlement and settlement patterns (chapter 5). Much can be said with a fair degree of certainty about the economy, both on the domestic and larger scales (chapter 6), but discussion of cult and belief is inevitably more speculative, and answers have often to be in the form of a series of possibilities (chapter 7). We end with the Romans, but the end is not an abrupt one: archaeologically the period of Romanization is one of the richest (chapter 8).

We hope that the book will provide an up-to-date introduction to the landscape, the artefacts in museums and the sites. Our final section, the Appendix, lists the most important of the latter with descriptions of how best to visit them and brief analyses of their visible (and sometimes invisible) remains. Visiting the sites and museums will make it immediately apparent that the Etruscans were not a homogeneous society but a group of independent-minded states; and noting the varied physical terrain in different parts of Etruria will help to explain their vigorous cultural regionalism. In his introduction to the 1986 edition of D.H. Lawrence's Etruscan Places, the great Etruscan scholar Massimo Pallottino wrote:

I don't think there is any other field of human knowledge in which there is such a daft cleavage between what has been scientifically ascertained and the unshakeable beliefs of the public. . . . There is in fact a scholars' Etruria

and a writers' Etruria, deriving from two divergent and, in a sense, non-communicating traditions; one, that of objective enquiry; the other, that of poetic intuition.<sup>6</sup>

We are painfully aware that *The Etruscans* cannot match the joyous prose of *Etruscan Places*, but we do hope that we have managed to construct a reasoned account of this extraordinary people in the following pages without losing the wonder at their achievements and love of their landscape that first induced us to embark on this book.

# The Landscape

Such a pure, uprising, unsullied country, in the greenness of wheat on an April morning! – and the queer complication of the hills! And in the full, dark, handsome, jovial faces surely you see the lustre still of the life-loving Etruscans!

D.H. Lawrence (1932) Etruscan Places

### Introduction

The achievements of the Etruscans cannot be understood divorced from their landscape. Their natural environment offered particular opportunities, such as resources of food, water, space and raw materials, and particular constraints, such as natural hazards, difficult terrain, and biological limiting factors, for them as for all the societies who have lived in Etruria before and afterwards. However, this is not to reduce their civilization to environmental determinism: how the Etruscans responded to their landscape, compared with earlier and later societies, was in terms of their particular social and economic institutions. The relationship between the Etruscans and their landscape was complex: it shaped many aspects of their history, and their activities in turn had a significant impact on it.

We cannot simply take the present-day landscape of Etruria, remove from our mind's eye the more obvious paraphernalia of modern industry and farming, and people it with Etruscans. The landscape of Etruria has been in a state of flux throughout its history, with tectonics and climatic change repeatedly altering it since earliest times and human settlement having an increasingly powerful influence in later prehistory and the historic periods. All these processes can change vegetation, animal populations, soil profiles, soil erosion patterns, river morphology and behaviour. Many of these processes

leave well preserved traces in the landscape. To understand the Etruscans' landscape, therefore, we must begin with the geological background that has shaped the major landforms – the robust 'skeleton' of the landscape – that we see today, and then use the findings of pollen analysis, geomorphology and environmental archaeology to try to reconstruct the appearance of the landscape – its 'flesh and blood' – some 2500 years or so ago.

## Geological background

Between about 250 and 70 million years ago, the shallow waters of the Tethys Ocean covered much of what is now southern Europe. An immense thickness of limestone was laid down at this time. As the processes of continental drift pushed the continents of Eurasia and Africa towards each other, these limestones were compressed and eventually rose to form the mountain chains of the Mediterranean basin, including the Apennines (fig. 2). (This phase of mountain-building still goes on, reflected in the earthquakes that are a feature of the Mediterranean region.) Further tectonic activity created trenches between the mountains to form what are now the major river valleys and intermontane basins of the Italian peninsula.

During the Pliocene, between about ten and two million years ago, high sea levels submerged much of the landscape except the principal Apennine chain and an archipelago of upland islands to the west, covering many of the flooded areas with sediments such as sands, clays and marls. At the end of the Pliocene, many of these sediments on either side of the Apennines were raised by as much as 800 m as the seabed lifted. Uplift and folding continued to affect the landscape throughout the Pleistocene, the period of the 'Ice Ages' that began about two million years ago and ended with the transition to our present climate about 12,000 years ago.

In Etruria, although Pliocene marine clays are exposed at depth in some river valleys, they have been generally overlain by the volcanic deposits that form one of the most striking characteristics of this landscape.<sup>2</sup> About ten million years ago, a complex sequence of volcanic activity began west of the Apennines which only ended some 50,000 years ago, leading to the formation of the largest expanse of volcanic country in continental Europe. There were

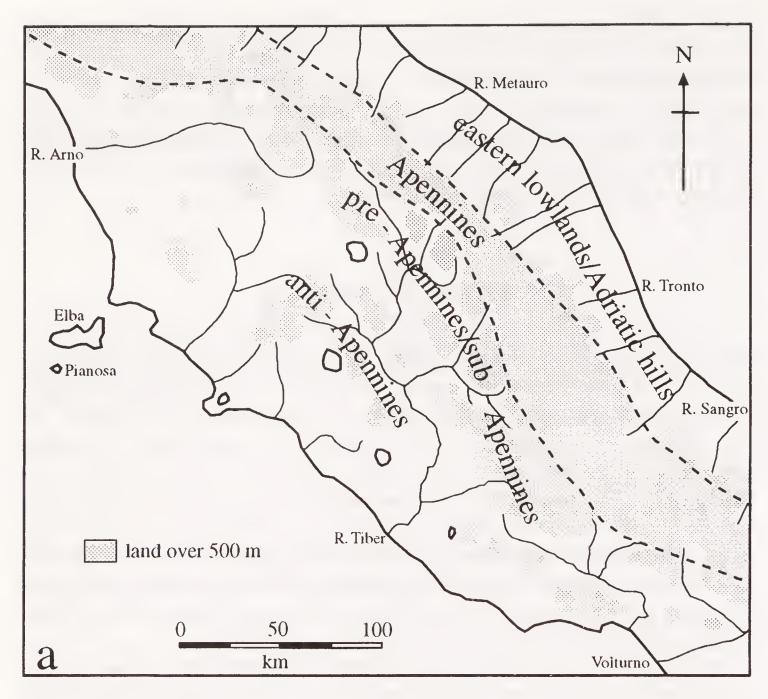


Figure 2a Central Italy, showing landforms. (Adapted from Barker, 1981: 13)

distinct phases of eruption interspersed with phases of erosion. The first phase of vulcanism led to the creation of the northern volcanic hills in modern-day Tuscany, with Monte Amiata at their centre. About a million years ago, the landscape was convulsed by a second, more profound, sequence of eruptions that formed the dramatic sequence of crater lakes from Bolsena in the north to those of the Alban hills south of Rome and Vesuvius in the Bay of Naples (fig. 3). In south Etruria, the region north of Rome, the scale of the eruptions was such as to force the Tiber eastwards to its present channel.<sup>3</sup> Mud and ash flows of various kinds from the craters cooled

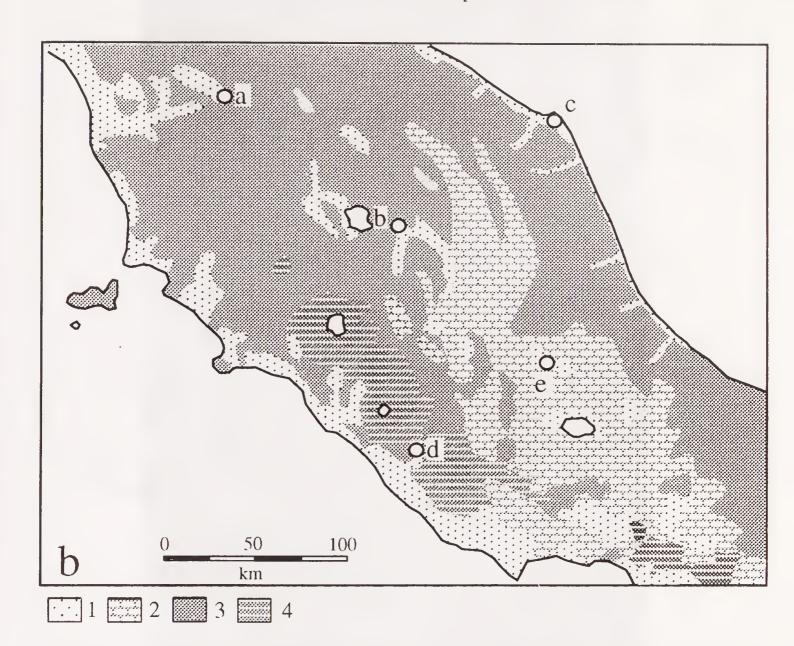


Figure 2b Central Italy, showing geology. Key: 1 alluvial plains and valleys, and marine terraces; 2 limestone hills; 3 conglomerates, sandstones, clays; 4 volcanic tufo. The regional capitals marked by letters are: a Florence (Tuscany); b Perugia (Umbria); c Ancona (Marche); d Rome (Lazio); e Aquila (Abruzzo). (Adapted from Barker, 1981: 15)

to form tuff or *tufo* rock. Exposed sections often show layers of lava and pumice, a record of the repeated convulsions that fashioned and re-fashioned the landscape at this time.

Over the past 50,000 years, geomorphological processes have added further 'recent' sediments to this geological sequence in the form of colluviation (soil movement downslope caused by erosion) and alluviation (the deposition of alluvium on either side of river channels during flooding). As discussed at the end of this chapter, the extent to which these processes reflect climatic change or human activities is a matter of great debate and of considerable relevance to Etruscan studies.





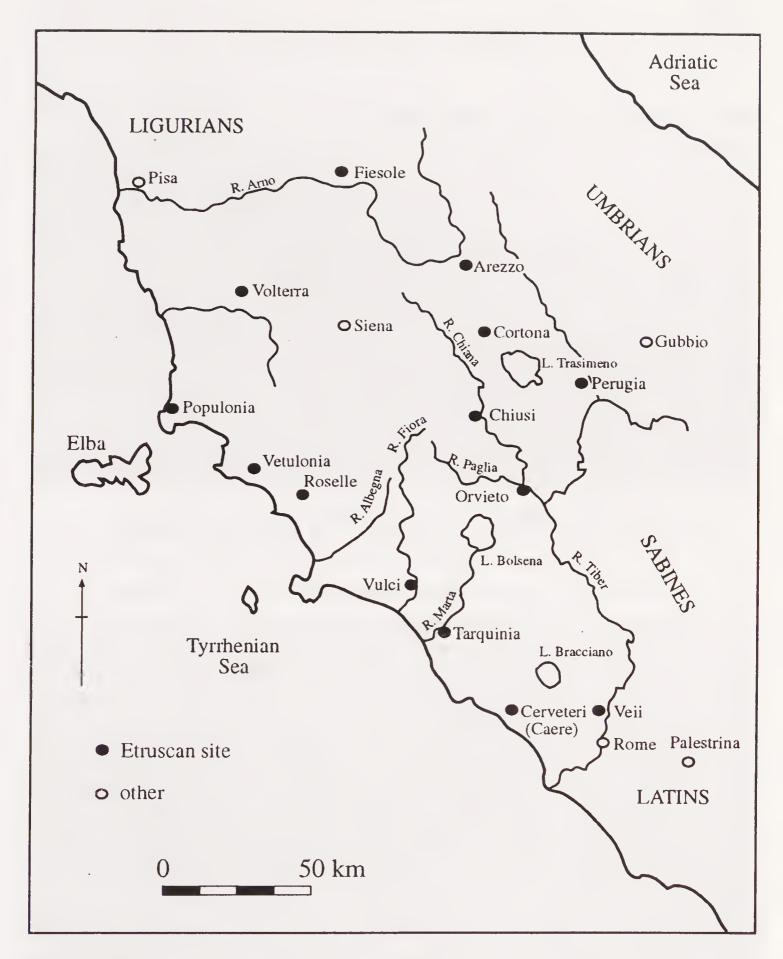


Figure 4 Etruria, showing principal Etruscan settlements.

Figure 3 (opposite) Volcanic crater basins and lakes in southern Etruria. Above: air photograph of Baccano crater with, beyond, Lake Martignano and Lake Bracciano. (Photograph by kind permission of the British School at Rome) Below: Lake Bolsena. The hill by the lake edge, in the background to the right, is the site of Bisenzio (Monte Bisenzo). (Photograph: T. Rasmussen)

# Landforms and topography

The geological processes described above have fashioned the western side of central Italy into three major structural units: the anti-Apennines, the pre-Apennines and the Apennines (fig. 2). The anti-Apennines were the heartland of the Etruscans (fig. 4). Their eastern boundary is more or less along the line of the modern Autostrada del Sole between Rome and Florence, which follows the Tiber valley as far as Orvieto, crosses over into the long trench of the Val di Chiana (fig. 5) and then joins the Arno valley at Arezzo. The main basins and river valleys are floored with alluvial sediments, which are particularly extensive in the lower reaches of the major rivers along the Tyrrhenian littoral, most notably the Cecina and Ombrone as well as the Tiber and Arno. The coastal lowlands here are termed the Maremma - low rolling hills and extensive alluvial plains bordered by littoral sands and shingle, interspersed with lagoons by the major estuaries (fig. 6).

The rugged and broken topography of the island of Elba is paralleled on the mainland opposite, between the Cecina and Ombrone rivers, in the form of the Colline Metallifere (fig. 19, chapter 2), the 'ore mountains', both topographies rising to over 1000 m above sea level. Together they formed the heartland of the mineral wealth of the Etruscans. Northern Tuscany, between the Cecina and Arno rivers eastwards to the hills of Chianti, is also hill country rising several hundred metres above sea level (fig. 7) - a mixture of conglomerates, sandstones and clays interspersed with limestone outcrops, broken principally by the Siena trough, which is mainly floored with Pliocene sediments like the other major basins. Immediately south of the Ombrone, the landscape is dominated by Monte Amiata, its volcanic heights rising to 1738 m above sea level, surrounded by sandstones and clays as to the north.

The Fiora valley on the southern side of this mountain forms the natural boundary with the volcanic tufo landscape of southern Etruria. The topography of this region is dominated by a gentle undulating plateau (fig. 8), cut by the narrow valleys of a series of small rivers and streams from the Fiora to the Mignone. These drain predominantly southwestwards from the Monti Volsini, the hills bordering the crater of Lake Bolsena, though only the Marta river flows directly from the lake. In many places the rivers have cut deep trenches through the soft tufo, exposing dramatic cliffs that were favourite localities for Etruscan tombs (fig. 9). The Monti



Figure 5 The Val di Chiana. (Photograph: G. Barker)



Figure 6 The Maremma coastal lowlands; in the foreground, the footings of the temple on the hill of Talamonaccio. (Photograph: T. Rasmussen)



Figure 7 Typical hill country in northern Etruria near Siena: the deserted medieval village of Montarrenti. (Photograph: G. Barker)



Figure 8 Typical tufo country in southern Etruria: the plateau. The photograph is looking northwards across the territory of the Tuscania survey shown in fig. 52. (Photograph: G. Barker)



Figure 9 Typical tufo country in southern Etruria: the gorges. The photograph is of the Marta valley east of Tuscania. (Photograph: T. Rasmussen)

Volsini rise to just over 600 m above sea level, the lake is at about 300 m and the topography then descends gradually to the sea. South of the Bolsena crater in the bend of the Tiber is the most dramatic crater lake of the region, Vico, the surface of which is about 500 m above sea level, surrounded by a rim of hills rising to almost 1000 m, the Monti Cimini. Some 15 km further south is the last of the big crater lakes, Bracciano, its surface just over 150 m above sea level and its crater rim (the Monti Sabatini) rising to over 500 m. Although the topography southwest of Bracciano consists of a dissected volcanic plateau like that southwest of Bolsena, immediately west of Bracciano are the dramatic hills of Tolfa, which rise steeply to over 500 m.

The pre-Apennines are a rather ill-defined group of predominantly limestone hills cut by wide tectonic basins (fig. 10) and narrow river valleys. On the eastern side of Etruria, the pre-Apennine topography is dominated by the upper Arno and Tiber rivers and their tributaries. The Arno rises in the Casentino, a rather remote basin separated from the rest of Tuscany by the Pratomagno mountain, which projects south from the main Apennine chain forcing the Arno to take a very



Figure 10 A typical intermontane basin in the pre-Apennines: the Gubbio basin. (Photograph: G. Barker)

circuitous route south to Arezzo and then west and north to Florence. To the east of the Val di Chiana, separated by low hills, the Tiber flows down a series of flat intermontane basins in northeastern Tuscany and Umbria from Sansepolcro to Perugia and Todi. Another basin is crossed by the tributary streams which flow from Spoleto past Foligno and Assisi to join the main Tiber near Perugia.

The Apennine mountains form the natural boundary of Etruria on the northern and eastern sides, as the Tiber valley does in the south. They begin on the Tyrrhenian coast north of the Arno as the Alpi Apuane, extraordinarily dramatic mountains which rise almost sheer from sea level to almost 2000 m: for much of the year, the dazzling white of their summits, visible from the coast, is a combination of both snow and the marble of the Carrara quarries. The continuation of the chain on the northern side of the Arno is dominated by clays and shales, forming rounded summits at about 1000 m above sea level separated by wide valleys, an unstable landscape very prone to erosion. From the Pratomagno southwards, however, is the typical landscape of karst uplands: steep ridges rising to some 2000 m enclose basins termed *altopiani* in Italian but more commonly



Figure 11 The typical karst landscape of the limestone Apennine mountains: the Rascino basin in the Cicolano mountains. (Photograph: G. Barker)

poljes by geologists; formed by limestone solution, they have flat floors usually at 1200–1500 m above sea level, made by a combination of sediment accumulation and lateral solution by floodwaters (fig. 11). Like the pre-Apennines, the high mountains bordering Etruria enclose a series of intermontane basins, isolated enclaves of settlement.

The landscape which the Etruscans encountered in their expansion south of the Tiber bears many similarities to the anti-Apennines of Etruria. The volcanic crater country continues past Rome into the Alban hills, and a rolling dissected plateau falls away southwards from these as from Bolsena and Bracciano. The country north and south of the Tiber is termed the Roman Campagna, the middle section of the coastal lowlands that continue southwards as the Pontine plain. Inland of the Pontine plain is a series of limestone ridges such as the Monti Lepini, Monti Ausoni and Monti Aurunci, and then the wide trench of the Liri valley to the east, the principal communication route to the south.

The northern side of the Apennines overlooking the Po plain consists of rolling terrain much damaged by erosion, the clays and shales of the higher ground overlain downslope by Pliocene sands and clays. A series of streams and rivers flows northeastwards through this intermediate terrain onto the alluvial plain itself.

### Settlement and communications

We know from archaeological survey that the settlement patterns of Etruria over the past two thousand years have altered drastically, with some periods favouring large nucleated settlements and others more dispersed systems dominated by farmsteads (see chapter 5). The transformations in settlement that have developed since the unification of Italy in 1871 have been particularly profound, and especially so in the past few decades. Nevertheless, the present-day settlement patterns, population distributions and communication networks of Etruria still reflect the constraints and opportunities of the physical environment in many ways. To what extent the present-day settlement patterns reflect those of the Etruscans or were the product of Romanization or later settlement processes such as incastellamento (the development of medieval hilltop villages) is one of the themes this book will explore.

In northern Etruria, the principal settlements like Pisa, Florence, Arezzo, Siena and Grosseto are invariably located in major valleys or basins, forming a series of urban enclaves 50-70 km apart along the edge of the hill country, with a few substantial settlements within the hill country, such as Volterra and Massa Marittima (fig. 4). In the diverse geology and broken topography of the hill country, the population is relatively low and is concentrated for the most part in small hamlets and villages, mostly on hilltops such as San Gimignano. In 1927 D.H. Lawrence described the country between Volterra and Sam Gimignano as 'queer and empty - very hilly in sharp little hills, and rather bare, and no villages'. There is a similar pattern of small hilltop settlements around Monte Amiata. Despite the increase of dispersed settlement in recent centuries in response to improved communications, industrialization (the construction of factories on drained valley floors that were formerly too wet for settlement) and social trends (the flight to the countryside of the industrial middle class), the hill settlements of Tuscany still largely retain their traditional functions as 'agro-towns' or 'agro-villages', providing homes for people who farm their land on a daily basis,