



## **Etruscan architecture from the Late Orientalizing to the Archaic period (c. 640–480 B.C.)**

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**ETRUSCAN ARCHITECTURE  
FROM THE LATE ORIENTALIZING TO THE  
ARCHAIC PERIOD (C. 640-480 B.C.)**

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**Vol. 1: Chapter 1-6**

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NB: This is a digitalized version of my Ph.D. dissertation.

It was originally in 5 volumes:

Vol 1: The text

This is included in the main text

Vol. 2: The illustration to the text

This is not included since this does not exist in a digitalized version. In the appendix there is a list of the illustrations

Vol. 3: Catalogue of secondary evidence

This is now included in the appendix

Vol 4: Appendix of Etruscan and Latial settlement

This is included in the appendix

Vol 5: Illustrations to the appendix of Etruscan and Latial settlement

This is not included since this does not exist in a digitalized version. In the appendix there is a list of the illustrations

**This digitalized version now include 2 volumes:**

Vol 1: The dissertation text

Vol. 2: The original vol. 2 and 4 and illustration lists, terminology, practical information

## PRACTICAL INFORMATION

- In several cases I have chosen to repeat important information from the appendix or catalogue so that it should be possible to read the text without consulting the appendix or catalogue all the time.
- By *Latium Vetus* I understand Rome and the area south of Rome. The dividing lines between Southern Etruria and Northern Etruria are the rivers Ombrone and dell'Albegna. The most northern part of Etruria I refer to as the Po Valley.
- All names of places/sites used are the modern Italian names except those that are more commonly known under their ancient name, i.e. Veii and Satricum.
- By architectural terracottas I understand all types of terracottas placed on the roof, that is both decorative terracottas such as statues placed along the ridge of the roof, and functional terracottas such as antefixes which prevented the wind from lifting the roof. Though it can be debated whether horizontal friezes were placed on the roofs or below the roofs, attached to the walls, I have chosen to regard these as architectural terracottas. Even if tiles may be considered architectural terracottas I have chosen not to do so in order to avoid confusion.
- Left and right: in describing iconography left and right are seen from the viewer's point of view.
- Unless otherwise stated all translations follow those of the Loeb editions.
- Several Italian terms are not easily translated into English. A *pozzo* may mean both a pit, a well and a votive deposit. In case of doubt I have retained the Italian term. The same goes for *fossa*, which may mean both a tomb, a depression, a ditch or a trench. A number of pottery shapes are also not easily translated, thus I use the Italian form (e.g. *olle*).
- References to figures in this dissertation are in italics. They are separated into *Figs. 1-154*, i.e. figures relation to chapter 1-6; *Figs. A1-A81*, i.e. figures relating to the catalogue of models, and *Figs. B1-B357*, i.e. figures relating to the appendix of sites.
- Illustrations: besides illustrations of all the building models (if possible) and technical details and reconstructions regarding building technique, illustrations have been limited to ground-plans due to the many sites discussed. If possible these plans have been turned (if necessary) so that north is at the top of the illustrations. When available, reconstruction drawings of the buildings are also included

## TERMINOLOGY

The following is an attempt to make a definition of the terms used within Etruscan architecture.<sup>1</sup>

### ARCHITECTURAL TERMS (*Figs. 122*)<sup>2</sup>

**Barge boards:** projecting boards placed against the incline of the gable and protecting the ends of the horizontal roof timbers.

**Batten/lath:** a light wooden members laid on top of the rafters/purlins. On these the tiles could be placed (if not laid directly on the rafters/purlins).

**Clay bedding:** a layer of clay placed under the tiles.

**Coffered ceiling:** a ceiling with beams transversing each other, creating a rectangular space in between, often decorated.

**Collar beam:** a tie beam applied some distance above wall plate level, usually joining the opposite principal rafters.

**Column:** a vertical support, circular in section.

**Cross piece:** logs crossing each other on the ridge of the roof, used on thatched roofs.

**Doric door:** see *porta Dorica*.

**Ground plate:** the horizontal beam which forms the bottom member of a timber framed wall, placed on top of the foundations.

**Half-timbering/timber framed building:** a building whose weight is carried by the framework instead of by load-bearing walls. In between horizontal beams (Bressumer) and vertical beams (studs) could be inserted. The vertical posts could be connected to the tie beam and the sill by oblique beams (bracing).

**King-post:** a post standing on a tie beam and rising to the apex of the roof where it supports a ridge-piece.

**Lesene:** a simple pilastre without any flutings, capital or base.

**Lünettentür:** a rectangular door with a semi-circular panel above.<sup>3</sup>

**Mudbrick:** square or elongated sun-dried clay brick, used for walls.

**Murs a piliers:** walls built of large stone blocks/"pilastres", placed at intervals, with a fill of smaller stones in between. This technique is also sometimes called *opera a telaio*. Such a technique is late called *opus africanum*.

**Opera a telaio:** see *murs a piliers*.

**Pilastre:** a pillar projecting only slightly from the wall.

**Pillar:** a vertical support, rectangular in section.

**Pisé:** a wall of packed mud/clay mixed with straw, pressed between a structure of boards until it was dry.

**Plaster:** unbaked clay, used both on the interior and the exterior of walls, and possibly also on the interior of roofs.

**Porta Dorica:** a door that is trapezoidal in shape and framed with a relief decoration.<sup>4</sup>

**Prop-and lintel construction (or propped and piled or bearer beam roof):** a roof construction with a

<sup>1</sup> These are based on a combination of various architectural monographs and handbooks, primarily Hodge 1960; J. Fleming, H. Honour & N. Pevsner, *The Penguin dictionary of architecture*, 2nd ed., Suffolk 1972 (and later); Ginouvès 1992; Downey 1995.

<sup>2</sup> When possible these follow standard reference works, such as J. Fleming, H. Honour & N. Pevsner, *The Penguin Dictionary of Architecture*, Suffolk 1966 (and later editions). The Latin terms are taken mostly from Vitruvius and Festus.

<sup>3</sup> After Prayon 1975. See further chapter 6.

<sup>4</sup> After Vitruvius 4.6.1 (see also Prayon 1975, 27 n. 119).

horizontal tie beam connected by a king-post to the two raking rafters of the gable, and thus not forming a truss.

**Purlin:** the horizontal timber of the roof construction (from gable to gable) laid parallel with the wall plate and the ridge beam, resting on the principal rafters and forming an intermediate support for the rafters.

**Queen-post:** a pair of upright posts placed symmetrically on a tie beam, connected by a collar beam to the rafters above.

**Rafter:** roof timbers sloping up from the wall to the ridge. They are usually placed at an interval corresponding to the width of the roof tiles. The principal rafters are the main rafters in the construction of a truss.

**Ridge beam:** the large central wooden beams/ridge pieces, supporting the roof/ceiling.

**Sheathing:** a light boarding laid on top of the battens and at right angles to them, that is, parallel to the rafters.

**Sill:** the lower horizontal part of a timber frame in a wall, resting on the foundations.

**Tie beam:** the horizontal transverse beam in a roof, connecting the feet of the rafters, usually on the top of the wall plate, to counteract the truss.

**Truss:** three pieces of timber (two principal rafters and a tie beam) framed together to form a triangle in the gable, to be self-supporting, and to carry other timbers. Trusses were placed at the gables, and could also be placed at intervals along the length of the building.

**Torus:** a projecting convex moulding, usually semi-circular in section.

**Wall plate:** a timber laid longitudinally on the top of a wall to receive the end of the rafters.

**Wattle and daub:** a wall construction of branches or thin laths (wattles) roughly plastered over with mud or clay (daub). Can also be used as filling in between timber-framed walls.

### **The Latin terms:<sup>5</sup>**

***asseres:*** rafters or laths.

***argilla cum capillo subacta:*** clay bedding.

***cathenae:*** purlins (???) - only mentioned by Adam 1994.

***cantherii:*** wall plates or rafters.

***capreoli:*** in Vitruvian index the king-post; in the Loeb translation the stay.

***columen:*** ridge (except in Ginouvès 1992, who interprets *columen* as the king-post and *culmen* as the ridge - according to most other scholars *columen* and *culmen* is the same). In Latin *columen* or *culmen* means "that which rises in height, is prominent, projects. In architecture it is used as "the top of a gable end, a gable pillar, a prop" (Lewis & Short).

***columnae:*** columns.

***lacunaria:*** coffered ceilings.

***mutuli:*** the rafters, often used about the visible ends of the rafters.

***templa:*** many interpretations (sheathing, battens, laths or purlins).

***trabes:*** discussed only in Ginouvès 1992, who uses the term both as purlins and wall plate.

***transtra:*** the tie beam (identical to *tignum*).

***transtra cum capreolis:*** the truss.

### **ROOF TYPES**

***a schiena:*** i.e. shaped like the back of a donkey. This type of roof is used on huts and is basically a hipped roof. This type of roof is only used for thatched roofs.

<sup>5</sup> There is some disagreement about the interpretation of the Latin terms, especially *asseres*, *templa*, *cantherii*, and *capreoli*.

**Compluviate roof (*cavaedium tuscanicum*):** a roof with an opening above an *impluvium*. This type of roof is only used for tiled roofs.

**Cone-shaped roof:** a thatched roof used on circular huts.

**Hipped roof:** a roof with sloped end instead of vertical ends, the gables being part of the roof. Either both gables or only one can be hipped. In the Archaic period this type of roof was apparently only used for thatched roofs.

**Saddle roof:** see two-faced roof.

**Shed roof (or lean-to roof, pent roof, or single-pitch roof):** a roof with only one slope and usually built against a higher wall. This was used for porches or porticos on both thatched and tiled roofs, while on a tiled roof the entire roof may have been a shed roof.

**Two-faced roof:** simple roof with two falls. The gables are triangular and part of the walls. This type of roof is used both for thatched and tiled roofs.

## TILES

**Compluvium tile:** a tile which is cut diagonally to be used in the corners of the *compluvium*. Identical to tiles used for (later) hipped roofs.

**Cover tile (*imbrex*):** the semi-circular tile covering the interstices of adjacent pan tiles.

**Eaves tile:**<sup>6</sup> the lowest pan tile. These were often decorated on the underside, and thus must have been projecting.

**Flange:** the raised border of the long sides of a pan tile.

**Pan tile (*tegula*):** the flat tile with flanges along both long sides.

**Ridgepole tile:** the large semi-circular tile covering the ridge where the tiles from the two slopes meet.

**Skylight tile:** a pan tile with a large opening (which could be covered) for the smoke. The term pierced tile is used in Greek archaeology for tiles with smaller openings.

## ARCHITECTURAL TERRACOTTAS (*Figs. 115-117*)

**Antefixes (*antefixa*):** a plaque often decorated with a head (possibly a whole figure or a group) or a relief covering the end of the cover tile at the eaves of a building.

**Antepagmenta (*antepagmenta*):**<sup>7</sup> the revetment plaque covering the end of the ridge beam, the wall plates, and the purlins. These had holes and were nailed to the wood. The term is also used for a plaque covering the semi-circular opening of the ridgepole tile.

**Akroteria (*acroteria*):**<sup>8</sup> a freestanding figure or ornament placed at the apex or corners of the pediment or along the ridgepole of the roof.

**Frieze plaque:** a flat, decorated plaque used as part of a continuous frieze, placed horizontally on a building. Since most of them seem to have random holes bored through the *fascia*, the friezes must have been placed either directly on the walls of the building or on a plaque parallel to the eaves of the roof, thus covering the end of the purlins.

**Lateral sima (*sima*):** the raised front edge of the pan tile with water spouts at regular intervals, placed along the eaves. Serving as a gutter.

**Open-work cresting:** a revetment placed above other revetments, usually raking simas with a cut-out ornamental

<sup>6</sup> See Andr n 1940, cxxxviii.

<sup>7</sup> In Latin antepagmentum is used as "everything that is used for garnishing the exterior of the house, as the ornament about the doors, windows etc. (Lewis & Short). For Vitruvius' use of the word see 4.2.1 and 4.7.5. Note that the term antepagmentum is not used the same way by all scholars.

<sup>8</sup> For the meaning of the word akroterion see Goldberg 1982, 193-217.

decoration.

**Pediment decoration:** a decoration in the triangular gable, either a closed gable with a relief decoration or a gable with figures in the round.

**Protome:** usually a neck and head of an animal, placed on top of a cover tile. The term is also used for flat moulded heads with a short projection at the back, probably used to cover the end of the wall plates or the purlins and thus had a function similar to an antepagmentum.

**Raking sima (*sima*):** the raised side edge of a pan tile which runs along the side of the gables.

**Raking friezes:** similar to horizontal friezes, but placed on the sloping gable of the roof. Unless a large portion of the frieze, including either the lower or the upper edge, is preserved, the two types are impossible to distinguish.

**Revetment:** in general the term revetment is used either for fragments that cannot be more closely defined, or if too little of the fragment is preserved to identify the type. However, it is also used for large plaques from the Late Archaic period which apparently were fastened on the lower beams/rafters below the eaves tiles or below the raking simas. Because these sometimes project below the beam they cannot be regarded as friezes. An often used term "hanging curtain" I usually refrain from using because it is often difficult to distinguish from "ordinary" revetment plaques.<sup>9</sup>

**Spout:** a hole in a lateral sima, often in the shape of a feline, through which the rain water could get out.

#### **SPECIFIC DETAILS OF ARCHITECTURAL TERRACOTTAS**

**Cavetto:**<sup>10</sup> a concave moulding along the top a revetment plaque, either with strigils (vertical tongues either concave or convex) or with a painted tongue pattern.

**Fascia:** the central flat part of a revetment plaque with a relief or a painted decoration.

**Torus:** a horizontal raised "band", semi-circular in section, placed either at the bottom of a revetment plaque (usually raking simas) or between the *fascia* and the cavetto. These can also be used on tombs, altars etc.

**Nimbus (or shell):** a frame of tongues placed around an antefix head.

<sup>9</sup> Hanging curtains are normally defined as a revetment plaque fastened at the top to the beam below the eaves tiles or below other revetments or to the front or sloping sides of the pediment. They are often decorated on the back, thus the back was meant to be seen. Hanging curtains are usually placed beneath the raking friezes or raking simas.

<sup>10</sup> This is sometimes called a cornice. Cornice on the other hand is sometimes used as a synonym for a raking sima!



# ARCHAEOLOGICAL PERIODS/HISTORICAL EVENTS

## **Prehistory and Orientalizing/Archaic periods:**

*Bronzo Antico*/Early Bronze Age: c. 1800-1550 B.C.

*Bronzo Medico*/Middle Bronze Age: c. 1550-1300 B.C.

*Bronzo Recente*/Late Bronze Age: c. 1300-1150 (or 1200) B.C.

Etruria: (according to Bartoloni 1989)

*Bronzo Finale*/Protovillanova: 1150-900 B.C.

Villanova I (*tipico*): 900-820 B.C.

Villanova, middle period (=Tarquinia Ic): 820-770 B.C.

Villanova II (*evoluto*): 770-720 B.C.

*Orientalizzante Antico*/Early Orientalizing Period: 720-680 B.C.

*Orientalizzante Medio*/Middle Orientalizing Period: 680-625 B.C.

*Orientalizzante Recente*/Late Orientalizing Period: 625-575 B.C.

The Archaic period: 575 - ? B.C. Often, however, the Archaic period, is regarded from 600 B.C. and onwards, till c. 480/460 B.C.

Etruria (according to Colonna & von Hase 1984 and Colonna 1986):

*Orientalizzante Antico (piena fase)*: 720/710-690 B.C.

*Orientalizzante Antico (finale)*: 690-670 B.C.

*Orientalizzante Medio (iniziale)*: 670-650 B.C.

*Orientalizzante Medio (finale)*: 650-630 B.C.

*Orientalizzante Recente*: 630-600 B.C.

Archaic period: 600 - ?

**Latium:** (according to *La formazione della città nel Lazio* 1980)

Latium I (=Late Bronze Age): 1000-900 B.C.

Latium IIA: 900-830 B.C.

Latium IIB: 830-770 B.C.

Latium III: 770-730/20 B.C.

Latium IVA: 730/20-640/30 B.C.

Latium IVB: 640/30-580 B.C.

**Historical dates:**

814 B.C.: Traditional foundation of Carthage.

775 B.C.: Foundation of the Greek colony Pithekoussai.

753 B.C.: Traditional foundation of Rome.

750 B.C.: Foundation of Cumae.

734/3 B.C.: Foundation of Syracuse.

c. 700 B.C.: The Etruscans take over the Greek alphabet.

650- B.C.: Etruscan maritime expansion.

616 B.C. Traditional start of the Etruscan dynasty in Rome.

565 B.C.: Foundation of the Phocaeen colony Alalia on Corsica.

c. 550-500 B.C.: Etruscan expansion in Campania.

540 B.C.: Battle of Alalia (the Etruscan-Carthaginian alliance defeats the Phocaeans - the Phocaeans leave Corsica).

509 B.C.: The last Etruscan king of Rome, Tarquinius Superbus, is expelled - traditional end to Etruscan rule in Rome.

508 B.C.: First commercial treaty between Rome and Carthage.

507/6 B.C.: Lars Porsenna of Chiusi possibly attacks Rome.

504 B.C.: Aristodemos, tyrant of Cumae, and the Latins defeat a son of Porsenna at Ariccia.

Late 6th century B.C.: Etruscan expansion in the Po-area - foundation of Etruscan cities in Northern Italy.

480 B.C.: The Carthaginians defeated at Himera on Sicily.

474 B.C.: Battle of Cumae (the Etruscans and Phocaeans were defeated by the Greek fleet of Syracuse) - Etruscan influence in Campania diminished.

**The Roman kings (traditional dates):**

Romulus: 753-715 B.C.

Numa Pompilius: 715-672 B.C.

Tullus Hostilius: 672-640 B.C.

Ancus Marcius: 640-616 B.C.

Tarquinius Priscus: 616-578 B.C.

Servius Tullius: 578-534 B.C.

Tarquinius Superbus: 534-510 B.C.

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## **VOLUME 2**

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 Chronological chart  
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 Danish summary

## **VOLUME 3**

Catalogue of secondary evidence  
 Illustrations to catalogue

## **VOLUME 4**

Appendix of Etruscan and Latial settlements with remains of architecture

## **VOLUME 5**

Illustrations to the appendix

The plans are in a separate cover



# CHAPTER 1

## INTRODUCTION

This dissertation is an attempt to fill the need for a study solely dedicated to Etruscan architecture from the Late Orientalizing period to the Archaic period.

The focus in my work is centred on buildings (huts, houses, temples, public buildings, etc.), thus I have excluded fortification walls, terraces, engineering works such as cisterns and bridges. Tombs are only included insofar they contribute to our knowledge of domestic buildings, i.e. the house tombs (see chapter 3).

I have concentrated on Etruria proper, i.e. between the Tiber and the Arno (including the Faliscan area). The dividing line/border between Southern Etruria and Northern Etruria culturally is the Ombrone and dell'Albegna.<sup>1</sup> The evidence from Latium, i.e. *Latium Vetus*, is also discussed, in order to see differences and similarities between the Etruscan and Latial material. Evidence from Campania and the Po Valley is not discussed with the exception of Marzabotto, since it is always referred to in discussions on Etruscan architecture and urbanism, and it is often regarded as evidence of the Etruscan city *par excellence*. In most ways, however, Marzabotto must be regarded as being totally different from the remaining Etruscan cities and settlements, as it is planned and laid out like the Greek colonies in Southern Italy and Sicily.

The focus lies from the Late Orientalizing period to the end of the Archaic period (approximately 640-480/70 B.C.), but the evidence from the Early Iron Age is also discussed, especially in relation to the transformation from huts to houses. In the Orientalizing and Archaic periods the Etruscan society is formed and prospers - at the same time it is one of the less well-known periods, primarily because we lack contemporary literary sources and because the archaeological remains, especially from settlements, are badly preserved. Our knowledge of this early period has to be based almost solely on archaeological evidence.

### THE SOURCES

There are three main sources for Etruscan architecture in this period:

1. Excavated remains of architecture, primarily foundations and parts of the roofs (tiles and architectural terracottas). In some cases, especially if the building was destroyed by fire, plaster coating and mudbrick may also be found. Stone walls are also preserved in some case
2. Different representations of architecture ("secondary evidence"). Primarily, these include models of buildings (hut urns, funerary models from the Orientalizing and Archaic periods, votive models,

stelae, cippi, and capstones); representations of buildings on e.g. reliefs; "modern huts"; and tombs (both representing the interior and the exterior of buildings and tombs with painted architectural details).

3. Greek and Roman literary sources. Very few sources on Etruscan architecture are known, and none of these were written by Etruscan authors, nor written in a period even remotely close to the Late Orientalizing and Archaic periods. We know that such sources existed (Varro, *Censor.* 17.6), but they have all been lost. All our sources are either Roman or Greek, and mostly written in the late Republican or early Imperial periods. Not many of these - if any - draw on Etruscan sources. As an example can be mentioned that Livy apparently could not read Etruscan (9.36) and he does not mention any Etruscan sources. The most important issue is the use of older sources by e.g. Livy.<sup>2</sup> Most of the ancient sources - the *Annales* - must have been destroyed in the 390's, during the Gallic invasion. That the literary evidence is reasonably trustworthy for Rome as far back as approximately 500 B.C. fits well - after the destruction of most of the *Annales* around 400 B.C. it would have been possible to trace the history back 2-3 generations, or possibly as far back as a 100 years.<sup>3</sup> Furthermore, several Late Archaic temples apparently were still standing until the 1st century B.C. (though more or less rebuilt). The purpose of the literary sources will also have to be taken into consideration. Since Livy himself states that his aim is to glorify the history of the Roman people, especially in "the good old days", it is natural to expect stories of grand cities and temples from the time of Romulus - instead of events taking place in a small village of huts! On the other hand several sources mention that the first Roman temples were in the shape of huts, which corresponds to the evidence of the hut from Satricum and elsewhere (see chapter 2, chapter 5, and the appendix). This evidence, however - as we shall see later - does not mean that actual temples were built, but merely that cult activity could now take place within walls, not necessarily in the open.

Regarding Etruscan architecture the most cited and used, not to say miss-used, written source on Etruscan architecture is Vitruvius, *De Architectura*, written during the reign of Augustus.<sup>4</sup> In this work he discusses *de tuscanicis dispositionibus*, which is usually interpreted as "the Etruscan order". Numerous interpretations of this in relation to the Etruscan temple, both in writing and drawings have been proposed.<sup>5</sup> F. Brown has argued that *tuscanicus* cannot be translated as "Etruscan", which would

<sup>1</sup> Colonna 1986, 373.

<sup>2</sup> For this problem see R. Ogilvie, *Early Rome and the Etruscans*, Glasgow 1976, 15-29.

<sup>3</sup> This reconstruction of the annales would probably have been based partially on the memory of older people, partially on other sources, e.g. temple annales.

<sup>4</sup> *De architectura*, in ten books, probably written before 27 B.C. His books have been debated at least since the 16th century, e.g. by Palladio, and a large number of works as well as conferences have appeared in this century. See Andr n 1940, xxxv-lxx; H. Knell, 'Der tuscanische Tempel nach Vitruv', *RM* 90, 1983, 91-101; Andr n 1959-1960, esp. 34-44; H. von Hesberg, 'Vitruv und die italische Tradition', *Vitruv-Kolloquium des deutschen Arch ologen-Verbandes e.V.*, Technisches Hochschule Darmstadt 17. bis 18. Juni 1982, eds. H. Knell & B. Wesenberg, *Schriften des deutschen Arch ologen-Verbandes e.V.* 8, Darmstadt 1984, 123-140; J. Ganzert, 'Zweimal zur Vitruv-interpretation', *OpRom* 18, 1990, 107-114; H. Knell, *Vitruvs architekturtheorie*, Darmstadt 1985.

<sup>5</sup> This is e.g. discussed at length by Andr n 1940. Just to mention some of the latest see L. Cozza in *Santuari*

be *tuscus* or *etruscus*.<sup>6</sup> Thus he concludes "Vitruvius, of course, had nothing at all to say about the architecture of the Etruscans", since he according to Brown only discusses contemporary buildings. Perhaps this is going too far, but there can be no doubt that the interpretations of Vitruvius have been carried too far - sometimes into the extreme, when Archaic temples, more than 500 years before the time of Vitruvius, are reconstructed according to his descriptions. It is much more likely that his statement relates to a "Tuscan" style, possibly inspired by Etruscan architecture, than to a discussion of Etruscan temples as such. Even if the latter were the case, Vitruvius must discuss Late Etruscan temples, not Archaic temples. This can for instance be inferred from the description of the relationship between the thickness and height of the columns. Here it is clear that the slender columns he describes are much later than those of the Archaic period.<sup>7</sup> Of course, there are similarities between the "Tuscan" temple described by Vitruvius and some (but definitely not all) Etruscan and Latial temples of the Archaic period, especially in the 3-cellae division of the rear part of the temple. But since many later temples also have this arrangement this evidence is hardly conclusive. "Tuscus" may in fact just mean old-fashioned.<sup>8</sup> Either way Vitruvius' work should be used with the utmost caution.

In general literary sources regarding the period before 400 B.C. should be used very cautiously, though sources regarding the Late Archaic period may contain valid information.

Literary sources are of much less value than the models and archaeological remains, both regarding reconstruction and identification. However, in a few cases evidence from literary sources is useful, such as regarding building construction/technique and in the case of specific cities, especially Rome, but also other sites such as Lavinium and Pyrgi. Most sources only briefly mention one or more temples in a city and no exact location is given, nor are there any indication of chronology.

These three sources (with the emphasis on the archaeological building remains and the "secondary evidence") will form the basis of the analysis presented in this work. Originally it was planned to discuss these three sources separately in three chapters, but the literary sources are of such different character and dealing with a multiple of subjects (both specific buildings, building techniques, cult statues etc.) that I have chosen to incorporate them within the other chapters. A presentation and discussion of the building remains are to be found in the appendices (vol. 4 and 5), but a chronological and topographical summary is presented in chapter 2. The "secondary evidence" is presented and discussed in the catalogue (vol. 3) and chapter 3.

## THE AIM

The purpose of this work is threefold:

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*d'Etruria* 1985, 62-65 and F. Melis in *Santuari d'Etruria* 1985, 61-62.

<sup>6</sup> F. Brown, 'Review of A. Boëthius and J. Ward-Perkins, *Etruscan and Roman Architecture*, Penguin 1970', *The Art Bulletin* 54, 1972, 342-344. Brown refers to the fact that the term *tuscus* is only used once by Vitruvius in I.7.1, where he discusses Etruscan haruspices.

<sup>7</sup> See e.g. André 1940, xlix-lv for a discussion of this paragraph.

<sup>8</sup> As also hinted by Cornell 1995, 167.

1. a reevaluation of Etruscan architecture by **combining** the evidence from actual buildings (badly preserved as they are) (appendix and chapter 2) with the important evidence from models of buildings, depictions of buildings and house tombs (the catalogue and chapter 3), as well as the few literary sources. Including the "secondary evidence" is important, since only from this do we get a notion of superstructures and interiors. On the basis of this combined evidence building technique is discussed (chapter 4).

2. Building identification. In chapter 5 I have chosen to stress the question of building identification,<sup>9</sup> in order to propose a new classification.<sup>10</sup> In earlier works most buildings are identified as temples, especially if they are adorned with architectural terracottas, as architectural terracottas were considered a secure sign of a temple.

The excavations at especially Acquarossa, San Giovenale and Murlo, taken place within the last 30 years, have now shown that large elaborate buildings decorated with architectural terracottas cannot *per se* be identified as religious buildings, since many have no indications of religious use and thus must be considered private dwellings. The best example is perhaps the so-called South-East Building at Murlo,<sup>11</sup> which beyond doubt have been identified as a workshop, but still were decorated with architectural terracottas. Even if most scholars now accept that architectural terracottas were used on many building types, earlier identifications of buildings as temples have not been questioned, even when these were mostly grounded on the presence of architectural terracottas. Furthermore, architectural terracottas are still used as a criterion for identifying a building (even when no walls are found) as a temple.<sup>12</sup>

In this dissertation I wish to examine the material more closely and look at the problems of building identification anew while trying to find more reasonable explanations for the functions of Etruscan buildings other than temples. To give a more reasonable suggestion as to the identification of buildings - not to mention specific rooms - evaluating not only the building itself, but also the relevant finds, is important.

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<sup>9</sup> I have previously discussed parts of this topic in my thesis *Etruscan architectural terracottas from the late Orientalizing and Archaic periods: Their relation to building identification, their development, origin, function, and symbolic significance*, Copenhagen 1989 (unpublished); and in Damgaard Andersen 1993a, but only in relation to buildings adorned with architectural terracottas.

<sup>10</sup> The problem of building identification is, however, discussed by Winter 1978, 44-54; Winter 1981, 141-158. For problems concerning the identification of Archaic buildings, especially domestic buildings, see also Melis & Rathje 1984, 382-395.

<sup>11</sup> Nielsen 1987.

<sup>12</sup> E.g. the so-called temple at Vigna Grande at Orvieto (believed to be the acropolis). Only fragments of architectural terracottas were found, no walls (G. Colonna in *Santuari d'Etruria* 1985, 68; G. Colonna, 'Brandelli di una gigantomachia tardo-archaica da un tempio etrusco', in *DELICIAE FICTILES* 1993, 147-152; Stopponi 1993). At Castel Savelli the find of one warrior head, probably from an akroterion, made Colonna identify a temple, even when no walls were found (G. Colonna, 'Il Lucus Ferentinae ritrovato?', *Archeologia Laziale* 7, *QArchEtr* 11, 1985, 41).

3. Finally in chapter 5 I will attempt a reconstruction of the different types of Etruscan buildings and discuss their development.

Thus, both typology/classification, technology, and the function of buildings are discussed.

## HISTORY OF RESEARCH

Though Etruscan architecture was to leave a major influence on later Roman architecture and thus indirectly on later European architecture, it has been a very neglected subject in classical archaeology/etruscology. This is especially evident for the Orientalizing and Archaic periods,<sup>13</sup> while Etruscan architecture of the Hellenistic period is more commonly discussed, especially in relation to early Roman architecture.

Etruscan architecture is primarily touched upon in short chapters in handbooks or publications/discussion of single buildings. Of these can be mentioned Pianu 1985, 269-335; Colonna 1986 (in my opinion the best introduction to Etruscan architecture); and Gros & Torelli 1989. Besides these studies several new publications of recent excavations have appeared, e.g. Acquarossa, Cerveteri, L'Ago dell'Accesa, Murlo, Acquarossa, and Tarquinia, which add considerably to our knowledge of Etruscan architecture. Unfortunately, many of these excavations are still only preliminarily published.

No monograph on Early Iron Age architecture in Central Italy has appeared. The subject is only treated in short chapters in handbooks and in publications on specific sites. Since only traces of the foundations of the huts, postholes, and fragments of plaster have been preserved, we rely very much on the evidence from the hut urns. The most recent monograph on the Italian hut urns is Bartoloni *et al.* 1987.<sup>14</sup> The book contains a useful catalogue, but unfortunately there are very few discussions in general except on the hut urns from the different Italian regions. There are hardly any comparisons to material from other countries (though there is a section with summaries on the specific sites). For the symbolic significance of these urns one must still consult older works, especially concerning German and Scandinavian material.<sup>15</sup>

Regarding the Orientalizing and Archaic periods we are still left with the old publications. First of all should be mentioned Dennis' pioneering work.<sup>16</sup> Thanks to his observations we have a good view of the remains visible during the first half of the 19th century. The first monograph to appear dealing solely with Etruscan architecture was Durm 1905. This was followed by a few articles such as G.

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<sup>13</sup> See also Knoop 1987, 8-12.

<sup>14</sup> The book was preceded by an article by almost the same authors which discuss some of the same problems (in some cases several paragraphs are identical): Bartoloni, Beijer & De Santis 1985. For a review see e.g. D. Ridgway in *AJA* 94, 1990, 354-356.

<sup>15</sup> The most important works are F. Behn, *Hausurnen, Vorgeschichtlicher Forschungen* 1, 1924; Kossack 1954; B. Stjernquist, *Simris II, (Acta Archeologica Lundensia)* 1961, esp. 44-65.

<sup>16</sup> G. Dennis, *The cities and cemeteries of Etruria*, 1st edition 1848 (revised edition 1878) and reprinted a number of times since then).

Pinza, 'Monumenti primitivi di Roma e del Lazio antico', *MonAnt* 15, 1905, 492-514 and A. Kirsopp Lake, 'The archaeological evidence for the "Tuscan Temple"', *MAAR* 12, 1935, 89-149 (only discussing temples). In 1941 Patroni's book on pre-Roman architecture in Italy appeared with a chapter on Etruscan architecture. With the exception of Dennis' book these publications are of very little value today.

In 1952 L. Polacco's *Tuscanicae dispositiones* was published, one of the many contributions to an apparently never-ending discussion on Vitruvius and his relation to/understanding of Etruscan architecture.

The only new attempt to make a more thorough survey of Etruscan architecture is the monograph on Etruscan tomb architecture by F. Prayon, *Frühetruskische Grab- und Hausarchitektur, RM Ergänzungsheft 22*, 1975, which also has a chapter on *Hausarchitektur*.

The only handbook solely dealing with Etruscan (and early Roman) architecture is A. Boëthius (revised by T. Rasmussen & R. Ling), *Etruscan and early Roman architecture*, Great Britain 1978.<sup>17</sup> The book was not very well received by the reviewers when it first appeared,<sup>18</sup> and even when revised, the book is still not very consistent and there are a number of mistakes.<sup>19</sup>

Different building types have been discussed recently. Temples have been thoroughly discussed in several monographs, especially *Santuari d'Etruria* 1985, Edlund 1987, and Rowe 1989, and many articles, such as Mambella 1982, Colonna 1984, and Rendeli 1989. Houses and the so-called "*palazzi*" have been discussed especially in the 1980s and 1990s, such as Melis & Rathje 1984; *Case e palazzi d'Etruria* 1985; and *Viterbo* 1986.

Besides these, a number of books have appeared on settlements in Etruria and Latium such as *Etruscan cities* 1975; *Gli etruschi in Maremma* 1981; *Enea nel Lazio* 1981; Steingraber 1981; *Mille anni di civiltà* 1985; and *Roma dei Tarquini* 1990.

On specific Etruscan architectural members the interest has primarily focused on the study of architectural terracottas. The first attempt to make a more general survey of architectural terracottas (limited only to the Archaic period) was E. van Buren.<sup>20</sup> Van Buren was the standard reference work for terracottas until 1940, when A. Andrén's major work was published.<sup>21</sup> This was the first attempt of an almost corpus-like publication. No doubt Andrén's book was the most important contribution to the study of Etruscan architectural terracottas (and to Etruscan architecture) and it is today - more than 50 years after its publication - still the standard reference work for Etruscan architectural terracottas from

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<sup>17</sup> The book was originally part 1 of a larger work by A. Boëthius & J.B. Ward-Perkins, *Etruscan and Roman architecture*, Great Britain 1970.

<sup>18</sup> E.g. F. Brown in *The Art Bulletin* 54, 1972, 342-344.

<sup>19</sup> As an example can be mentioned that the temple at Bolsena in the revised edition is still considered Archaic, though Colonna has shown it to be Hellenistic (G. Colonna *et al.*, 'Il santuario di Pyrgi alla luce delle recenti scoperte', *StEtr* 33, 1965, 200 n. 19).

<sup>20</sup> Van Buren 1921.

<sup>21</sup> Andrén 1940.

all periods. It is very comprehensive, has an extremely useful survey of the specific sites, a large number of photographs, an extensive description and a useful bibliography. However, there are some defects (some of them, of course, due to the fact that it was written more than 50 years ago).<sup>22</sup> This work was followed by his article in 1971, partly revising the chronology and partly adding new finds (e.g. from Murlo and Acquarossa).<sup>23</sup>

Since 1940 articles and books on architectural terracottas (mostly on specific sites or museum catalogues) have appeared. Many of these discuss new finds (e.g. Acquarossa and Murlo) but some of them reconsider older ones (e.g. Cerveteri). Especially in the 1970s and 1980s the stylistic approach has been less extensive and new methods have been tried, e.g. analysis of mouldings and clay. This has been combined with an increasing interest in the find circumstances of the architectural terracottas and reconstruction of the placement of the terracottas. Examples of this can be seen in *Case e palazzi d'Etruria, Santuari d'Etruria, Civiltà degli Etruschi*, and *Viterbo* 1986. The most important recent work is N. Winter's dissertation (and article).<sup>24</sup>

In 1990 a conference was held at the Swedish Institute in Rome titled the First International Conference on Central Italic Architectural terracottas. This conference dealt primarily with architectural terracottas of the Archaic period (*DELICIAE FICTILES, Proceedings of the First International Conference on Central Italic Architectural Terracottas at the Swedish Institute in Rome, 10-12 December, 1990*, eds. E. Rystedt, C. Wikander & Ö. Wikander, *ActaRom* 4°, 50, 1993). It was followed by another conference at The Dutch Institute in Rome in 1996 (not yet published).<sup>25</sup>

Finally a few important problems/discussions should be introduced:

## HUT OR HOUSE

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<sup>22</sup> Firstly, the terminology is quite confusing. There is no clear distinction between e.g. friezes and simas. Secondly, the chronology is not very exact: mostly within 50 years. Some architectural terracottas are only referred to as "Archaic", "earlier" or "later". There are very few criteria for the dates. Thirdly, the stylistic method used by Andrén causes a number of problems: the architectural terracottas are treated as objects of art - the object itself being the overall important thing: there is rarely any information about where it was found or the find context. Similarly, there are no arguments for why an architectural terracotta is placed under a specific town (i.e. whether this information is certain because of e.g. excavation reports; concluded (because of similar finds in this town), or stated (e.g. from an art dealer)) - one must therefore assume that stylistic criteria were used unless there is a reference to an excavation report. The history of the piece (i.e. which collections and museums it has been in) is seldom mentioned, nor is the year of the find stated.

Apart from these problems there are several minor defects. The number of fragments dealt with under one catalogue number is not always clear, inventory numbers are often missing and there are a fair amount of mistakes - especially regarding the fragments in the Louvre and the Pergamon Museum.

Information about the condition is random, as are the measurements (usually only the height and perhaps the length are given). The clay is very briefly described, often for a large group of terracottas.

<sup>23</sup> Andrén 1971.

<sup>24</sup> Winter 1981 (written in 1974)(unfortunately this important work is only published as a microfilm-print and without illustrations). A summary article of the dissertation, however, is published (Winter 1978).

<sup>25</sup> Finally should be mentioned that N. Winter is preparing a major follow up on Andrén's "corpus" of

In general terminology is discussed in vol. 2. One important issue, however, needs to be introduced here, namely what is a house and what is a hut, and what exactly is the difference between the two.

It is of course very difficult to distinguish between a hut and a house in the Early Iron Age and the Orientalizing period - both in regard to real buildings and models. The definition of a house in contrast to a hut is hardly discussed in the architectural or archaeological literature, and most publications seem to take the definitions for granted.<sup>26</sup> By hut I understand a circular, oval, or rectangular building. Instead of stone foundations either the whole ground-plan or the perimeter and postholes are cut into the bedrock.<sup>27</sup> The walls are made of wattle and daub, and the roof is thatched and either hipped, two-faced, or conical. The weight of the roof is mainly carried by posts, though huts with the roof carried by the walls are also known. A hut is a fairly light construction made solely of organic material. It could be built in a short amount of time with a minimum of specialized technology.

As opposed to that I define a house as a building with stone foundations,<sup>28</sup> laid directly on the ground. The ground plan is rectangular.<sup>29</sup> Walls could be either mudbrick, *pisé*, stone, or wattle and daub, but all types of walls are fairly substantial. If the walls were *pisé* or mudbrick, a timber construction was needed in order to carry the roof (half-timbering). The roof was either thatched or tiled. If thatched the roof was either two-faced or hipped; if tiled two-faced, though shed roofs cannot be excluded. Houses are usually larger than huts and much more substantially built. House building required a more specialized technology than hut building.

### **THATCHED OR TILED**

In this dissertation the question of thatched contra tiled roofs is an important issue, especially with regard to the building models and depictions of buildings discussed in chapter 3 (and the catalogue).<sup>30</sup> As will be clear from this discussion the only possible way of determining whether a roof is thatched or tiled is in my opinion to look at the inclination of the roof. For a thatched roof the ideal inclination lies between 45° and 60°,<sup>31</sup> in order to make them resistible to rain and snow and thus avoid rot.<sup>32</sup> Because tiles are large and heavy, ancient tiled roofs use a low pitch, mostly between 10°-20°. Tiled

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architectural terracottas.

<sup>26</sup> See however Melis & Rathje 1984, 382 n. 2.

<sup>27</sup> A few examples (such as the Late Bronze Age hut at Tarquinia, Pian di Civita (see the appendix)) of huts with stone foundations exist. This is apparently called a hut because of its date. See further chapter 4.

<sup>28</sup> The only exception seems to be some of the early houses in Roselle without stone foundations - see further chapter 4.

<sup>29</sup> There are a few exceptions such as the apsidal building near the bridge at San Giovenale. See further chapter 4.

<sup>30</sup> This problem is further discussed in Damgaard Andersen forthcoming.

<sup>31</sup> As an example can be mentioned that houses with thatched roofs in Scandinavia use inclinations between 45° and 60°.

<sup>32</sup> For the inclination of thatched roofs see K. Fagerström, *Greek Iron Age architecture*, SIMA 81, 1988, 101. See also Maffei, 112.



roofs do not tend to slip until an inclination of at least 30° is passed.<sup>33</sup> Modern tiled roofs in Italy with pan tiles and cover tiles normally have an inclination around 20°.<sup>34</sup> Thus basically a low inclination indicates a tiled roof, a steep inclination a thatched roof. An angle of 30°, however, may thus suggest both a tiled roof and a thatched roof.

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<sup>33</sup> G. Brodrib, *Roman brick and tile*, Gloucester 1987, 10.

<sup>34</sup> A.G. Rook, 'Tiled roofs', in: A. McWhirr (ed.), *Roman Brick and Tile. Studies in Manufacture, Distribution and Use in the Western Empire*, BAR International Series 68, Oxford 1979, 295.

## CHAPTER 2

### THE CHRONOLOGICAL AND TOPOGRAPHICAL DEVELOPMENT OF ETRUSCAN BUILDINGS

Based on the evidence of building remains presented in the appendix I want to examine briefly the remains in a chronological and topographical context. On *Fig. 1* can be seen a map with all the sites discussed in the appendix.

#### FROM THE PREHISTORIC PERIODS TO THE MIDDLE ORIENTALIZING PERIOD

Remains of huts have been found dating from the Neolithic Age, such as the large apsidal hut from Latium, Casale del Dolce (11.70 x 4.20 m), dated to the 5th-4th millennium B.C.<sup>35</sup> From the Bronze Age the so-called long-houses, i.e. large rectangular buildings,<sup>36</sup> such as the ones from Luni sul Mignone (18.20 x 9.10 m),<sup>37</sup> and Monte Rovello (15.25 x 7.65 m),<sup>38</sup> are known. The long-houses seem to die out at the end of the Bronze Age. Besides these smaller huts are known. These are either circular, oval, or rectangular. As an example can be mentioned the village of Sorgenti della Nova where all three shapes of buildings are found.<sup>39</sup>

From all periods of the Early Iron Age archaeological remains of huts have been found in Etruria,<sup>40</sup> but mainly in Southern Etruria (such as Sorgenti della Nova,<sup>41</sup> Civitavecchia,<sup>42</sup> Veii,<sup>43</sup> San Giovenale,<sup>44</sup> Acquarossa,<sup>45</sup> and Tarquinia<sup>46</sup>), in the area around Bologna,<sup>47</sup> and in Latium (e.g. Rome,<sup>48</sup>

<sup>35</sup> S. Mammini in *Archeo* 7, Luglio 1997 (no. 149), 6-7.

<sup>36</sup> Maffei, esp. 113; Bartoloni 1989, 69-70, fig. 3.8.

<sup>37</sup> P. Hellström, *Luni sul Mignone - The zone of the large Iron Age building*, *ActaRom* 4°, 7:2,2, 1967; Bartoloni, Beijer & De Santis 1985, 186.

<sup>38</sup> A. Maffei, 'La capanna di Monte Rovello. Ricerca della forma e della funzione originaria', *Notiziario* 2, Allumiere, 1973, 99-103; Bartoloni, Beijer & De Santis 1985, 186.

<sup>39</sup> See e.g. Catacchio & Domanico 1986; Bartoloni 1989, 65-68, figs. 3.4-3.6 (with further references).

<sup>40</sup> Not much has been written on Early Iron Age huts in general. See however Bartoloni, Beijer & De Santis 1985, 186; Catacchio & Domanico 1986; Bartoloni *et al.* 1987; *Quaderno della Soprintendenza Archeologica del Lazio* 1, *Problematiche di scavo delle strutture abitative dell'età dell'ferro*, Rome 1988; J.R. Brandt, *Ficana. Studi su una comunità dell'età del ferro nel Lazio (VIII-VI sec. A.C.)*, Rome 1996.

<sup>41</sup> Negroni Catacchio & Miari 1995; N. Negroni Catacchi, *Sorgenti della Nova. L'abitato del Bronzo Finale*, Origines. Studi e materiali pubblicati a cura dell'Istituto Italiano di Preistoria e protostoria, Florence 1995.

<sup>42</sup> A. Maffei, 'Il complesso abitativo proto-urbano di Torre Valdaliga', in *La preistoria e la protostoria nel territorio di Civitavecchia*, Civitavecchia 1981, 96ff.

<sup>43</sup> Piazza d'Armi (Stefani 1944, 178-290) and Portonaccio (Stefani 1953, 102-103) and near the NW-gate (see the appendix).

<sup>44</sup> I. Pohl, *The Iron Age Habitation in Area E, San Giovenale* III:2, *ActaRom* 4°, 26:3, Stockholm 1977; B.

Antemnae,<sup>49</sup> Ficana,<sup>50</sup> Lavinium,<sup>51</sup> Colle San Magno,<sup>52</sup> and Satricum<sup>53</sup>). In Etruria they date throughout the Early Iron Age, while the huts in Latium primarily date to the 8th-7th centuries B.C.<sup>54</sup>

I do not intend to survey all the huts found in Etruria and Latium. Two examples will suffice:

#### TARQUINIA, MONTEROZZI

On the plateau of Tarquinia at the site of the Archaic cemetery (near the T. d. Caccia e Pesca) the village of Monterozzi was located, ca. 2 ha. (Località Calvario). The site was in the vicinity of the Early Iron Age cemeteries (*Fig. 2a*). It was excavated by Linington from 1975 to 1978.<sup>55</sup> Traces of 25 huts have been excavated (*Fig. 2b*), almost destroyed by the Archaic cemetery. The huts all date to a fairly short period in the early part of the Early Iron Age. Only in trench 55 are traces of two periods. The distance between the huts varies from 4 to 20 m Linington divides these into four types:

1. Oval huts (nos. 7, 13, 48, 55).<sup>56</sup> All have two rows of internal posts, 2 x 2 in nos. 7, 55, and probably also 48, and 2 x 3 in no. 13. No. 7 measured 12.65 x 7.30 m, no. 13 16.2 x 8.6 m, no. 48 11.3 x 6.7 m, and no. 55 10.5 x 5.6 m. The main entrance was on the short side (towards the WNW, W, SE, and SW and a smaller entrance on one of the long sides, but there is no fixed orientation. At least hut 13 and 55 was divided into two rooms by a partition wall by the rear set of posts, separating the rear.
2. Rectangular huts, almost square (nos. 3, 27/40, 42, and perhaps 3b). Numerous postholes are located parallel to the perimeter walls at a short distance. All have two internal posts. No. 3 measured 6.4 x 5.4 m, no. 27/40 6.7 m on one side, no. 42 had two entrances, on opposite walls.
3. Rectangular huts similar to type 2, but elongated (nos. 14 and perhaps 6). All structural elements are quite large, especially the postholes on the outside. The posts are not aligned in hut 14, perhaps three posts in a triangular system (?). No. 14 measured 8.9 x 5.8 m.

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Malcus, 'Area D (Ovest)', in S. Forsberg & B.E. Thomasson (eds.), *San Giovenale. Materiali e problemi*, Atti del simposio all'istituto Svedese di Studi Classici a Roma 6 Aprile 1983, *ActaRom* 4°, 41, Stockholm 1984, 37-60.

<sup>45</sup> Östberg 1975, 31-32. These huts will be published by Eva Rystedt.

<sup>46</sup> See below.

<sup>47</sup> Prayon 1975, 116 n. 654 (with further references).

<sup>48</sup> Palatine (S.M. Pugliesi, 'Gli abitatori primitivi del Palatino attraverso le testimonianze archeologiche', *MonAnt* 41, 1951, 1-98) and Regia (Brown 1976).

<sup>49</sup> L. Quilici & S. Quilici Gigli, *Latium Vetus I, Antemnae*, Rome 1978, 29.

<sup>50</sup> J.R. Brandt, *Ficana. Studi su una comunità dell'età del ferro nel Lazio (VIII-VI sec. A.C.)*, Rome 1996.

<sup>51</sup> Fenelli 1984, 325-344, figs. 4-5.

<sup>52</sup> R. Peroni in *Enea nel Lazio* 1981, 95-98.

<sup>53</sup> See below.

<sup>54</sup> Bartoloni, Beijer & De Santis 1985 (with further references); Bartoloni, Buranelli, D'Atri & De Santis 1987, 135-137.

<sup>55</sup> R.E. Linington, 'Tarquinia (Viterbo)', *StEtr* 45, 1977, 453-454; R.E. Linington, F. Delpino & M. Pallottino, 'Alla origine di Tarquinia: scoperta di un abitato villanoviano sui Monterozzi', *StEtr* 46, 3-23; Linington 1981; Linington 1982; Colonna 1986, 389, tav. II.

<sup>56</sup> A trace of another oval hut was found towards the west (Linington 1982, 117).

4. Rectangular huts, elongated and narrow (nos. 3a, 31, 33, and possibly 58). No. 3a measured 3.6 x 6.7 m, no. 31 c. 5.1 m on one side, and no. 33 8.3 x 4.2. Even if they were quite large they appeared less monumental than the others. The entrance was on the short side.

Another eight huts were rectangular, but the type cannot further be determined (nos. 1, 10, 15a, 15b, 16, 24, 53/54, and 55). The evidence for the remaining huts consisted of post holes. In trench 44 was perhaps another oval hut and a large rectangular hut.

The huts vary in size from 35 m<sup>2</sup> to 80 m<sup>2</sup>, the oval huts being the largest. The huts do not seem to be placed according to any system. All the foundations are cut out of the tufa, both perimeter walls and postholes. Some of the rectangular huts had large overhangs, as can be seen from a row of small holes in the tufa outside the huts for posts (no. 14).

Linnington has suggested that the oval huts were used for store-room and stables and the rectangular huts of type 2 and 3 were used for habitation. The rectangular huts of type 4 were probably not used for habitation.

Most of the material found during the excavation consisted of impasto sherds. Linnington emphasises that several of the same types were found in the oval huts and in huts of type 2 and 3. Thus nothing indicates that the oval huts should have been "chieftains' huts" or have had a sacred function. Colonna on the other hand believes that the oval huts belonged to the *paterfamilias*. Linnington further suggests that the oval huts of type 1 and the rectangular huts of type 3 should be connected, as should the rectangular huts type 2 and 4, possibly signifying a difference in social status and/or wealth. The new trenches in the NW dug in 1978 suggested, however, that the oval huts (at least hut 55) antedated the rectangular huts.

## SATRICUM

At Satricum several huts, dating from c. 830-650 B.C., were located around an artificially made water basin, 12 m in diam, and 2 m deep (up to 4 m in the centre) (*Figs. B330-B332*).<sup>57</sup> A large area around this basin was paved with pebbles, at least in the Late Orientalizing period, and a pebbled road ran up to this area from the NW.

15 huts were excavated in the 19th century, and the artefacts found deposited at the Villa Giulia. Unfortunately it is not possible to connect the artefacts to the drawings of the huts, except in the case of the *capanna 6*. This, however, was more probably a pit, since it contained a number of smaller personal artefacts, otherwise not found in huts (*Fig. B330, pit delta*).<sup>58</sup> All the unnumbered old huts have been given new Greek letters. Another four huts were excavated by the Dutch Institute in Rome beneath the later temples - these have been given Arabic number. The Groningen excavations have uncovered seven huts, given Roman numerals.

<sup>57</sup> For huts in general from Satricum see M. Maaskant-Kleibrink & R. Olde Dubbelink, 'Stepping over or overstepping thresholds: on the identification of hut floors, cooking-areas and rubbish pits at the site of Satricum', *BAR* 245, 1985, 203-216; Maaskant-Kleibrink 1991, 61-83; Maaskant-Kleibrink 1992, esp. 38-98.

<sup>58</sup> Maaskant-Kleibrink 1991, 69.

The huts excavated in the 19th century all had a sunken floor (not deeper than 50 cm in virgin soil). In some of the hut-floors a hearth was indicated. These were located either in the centre or opposite the entrance. Both circular, oval, and rectangular huts were found: circular huts (VG hut 1, dated to the 8th century B.C.; VG hut 2; VG hut 3; VG hut 4, probably dated to the 9th century B.C.; two small circular pits NIR 3 and NIR 4 under the pronaos of the later temples, one is dated to the 8th and the other to the 7th century B.C.; GR I, dated to the late 9th/early 8th century B.C.; GR II, dated to the 9th century B.C.;<sup>59</sup> GR V; and rubbish pit GR IV below hut GR VII). Smaller oval huts (VG 6, but more probably a pit, dated to the first half of the 7th century B.C.; VG hut 7, dated to the 8th century B.C.; VG hut 8, dated to the 8th century B.C.; VG hut 9, dated to the 9th or 8th century B.C.; VG hut 10, dated to the first half of the 7th century B.C.; VG hut 11; VG hut 12, identifiable with pit iota; NIR 1 and 2 underneath the later temples; and GR III and IV, dated to the 8th century B.C.). Larger oval huts (VG 5, presumably identifiable with pit theta, dated to the first half of the 5th century B.C.; NIR 1 underneath the temple, dated to the early 8th century and in use in the 7th century - for this hut see below; GR VII, dated to the early part of the 7th century B.C.). Rectangular/square huts (VG hut 13, identifiable with hut pit alpha, dated to the late 8th century B.C.; VG hut 14, dated to the 8th and 7th centuries B.C.; VG hut 15; and Groningen hut pit VI (?), dated to 750-700 B.C.).

The small circular huts thus date from 8th century (some possibly as early as the 9th century) to the early 7th century B.C. The smaller oval huts date from the 8th century to the early 7th century B.C., while the larger oval huts date from the end of the 8th to the first half of the 7th century B.C. The rectangular huts date mostly from (the second half of) the 8th century B.C.<sup>60</sup> Most of the larger huts seem to have developed from smaller huts.

The reconstruction of the square huts may be based on hut GR VI.<sup>61</sup> It measured 5.20 x 3.55 m. There were no external postholes, except in the NE, perhaps from a porch. Part of the wattle and daub walls were preserved. Within the hut impasto pottery was found (a large number of cups, jars, and bowls). There was no hearth proper, but the floor was covered with a layer of carbon and a few fragments of *forrelli*. The hut is dated to the third quarter of the 8th century B.C. The excavators suggest that all the square huts had a two-faced roof.

The reconstruction of the oval and circular huts is more uncertain, since postholes are almost absent. The small circular huts may have had a light roof, resting directly on the walls (such as in the classic reconstruction by Cozza - *Fig. 90,1*).<sup>62</sup> The excavators suggest a conical roof. The reconstruction of the oval huts is difficult. The roof is reconstructed as hipped, but the woodwork construction of the roof is uncertain. As an example of an oval hut may be mentioned hut GR VII (*Fig.*

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<sup>59</sup> This early date is based on the carbon sample found in the hut, while the pottery suggests a date in the 8th century B.C. (Maaskant-Kleibrink 1991, 72).

<sup>60</sup> Maaskant-Kleibrink 1991, 69.

<sup>61</sup> Maaskant-Kleibrink 1991, 74-75; Maaskant-Kleibrink 1992, 54-57.

<sup>62</sup> For this roof construction see chapter 4.

B335).<sup>63</sup> The length is 11 m. Along the walls were found pebbles, which may indicate a bench. In the fill of the floor loomweights, two iron knives, a stand and cups, all datable to the first half of the 7th century B.C., were found. According to the excavators these finds indicate consumption of meat (the knives) and wine-drinking (the stand).

Many of the small oval huts are next to even smaller circular huts. These had a diameter of 2-3 m and they contained mostly cooking material, while the oval huts contained fragments of dolia, weaving and spinning objects and sometimes drinking cups and jars. Therefore Maaskant-Kleibrink suggests that the small circular huts were cooking sheds (such as e.g. GR II) and the oval huts used for living in (see also chapter 5).

The most important hut is NIR 1, located underneath the temple (*Figs. B333-334*).<sup>64</sup> The finds date the hut to the early 8th century and it was also in use in the 7th century. It was oval, measured 6.88 x 4.44 m, and was oriented towards WSW. For this see further the appendix and chapter 5.

Thus for the 8th century the village is reconstructed with smaller oval huts spread evenly around the area and around the basin, most often in connection to a small circular cooking shed (*Fig. B331*). For the late 8th/first half of the 7th century B.C. the village is reconstructed with large oval huts, still in connection with small circular cooking sheds, and placed around the basin. In this period square huts were introduced, also connected to small circular cooking sheds. These were placed in the outskirts of the village (*Fig. B332*). It is uncertain, however, whether the square huts were in use at the same time as the smaller oval huts.

## THE FIRST HOUSES

In the late 8th/first half of the 7th centuries B.C. huts still prevailed, but now the first houses/substantial buildings, still with thatched roofs, appear (*Plan 1 and Fig. 3*). From the late 8th century B.C. is the curious semi-subterranean room on the acropolis of San Giovenale. From Tarquinia, Pian di Civita, Building Beta, dates to the early 7th century B.C., while *Area sacra* next to Building Beta was already in use from the second half of the 8th century B.C. (though a kind of enclosure wall, not roofed). Early houses are found in San Giovenale, House IV/the Archaic House, dated to the late 8th/first half of the 7th centuries B.C. and the hut/house I also from the acropolis at San Giovenale, dated to 675-650 B.C. At Murlo, the building beneath the southern flank of the Upper Building, may date as early as 675 B.C. (no evidence of tiles found yet but the substantial foundation walls could have supported a tiled roof). A few buildings at Roselle, *Casa del recinto* (and possibly also Building B in the vicinity and the building in square E5), are dated to 675-650 B.C. Thus the first houses with thatched roofs are known from both Northern Etruria and Southern Etruria, but none from Latium.

## THE LATE ORIENTALIZING AND ARCHAIC PERIODS

<sup>63</sup> Maaskant-Kleibrink 1991, 80.

<sup>64</sup> *Satricum* 1986, 147-148; Maaskant-Kleibrink 1991, 71.

In the following buildings will be discussed in a chronological order, separated into four periods: 1. 650/40 - 600 B.C.; 2. 600/590 - 550 B.C.; 3. 550/540 - 520 B.C.; 4. 520/510 - 480/470 B.C. As can be seen these periods are not of equal length since they vary between 30 and 50 years. Period 1 is characterized by being the Late Orientalizing period; period 2 covers the early part of the Archaic period, where reminiscences of the rich Orientalizing culture are still evident; period 3 is the period where we may see the first Etruscan temples and the period in which temples become common in Latium (see chapter 5). Finally period 4 covers the Late Archaic period with its "building-boom" and large number of monumental buildings.

Within each period the remains of buildings are treated topographically (Southern Etruria/Northern Etruria/Latium). Sites with few early remains such as e.g. architectural terracottas and few or no walls are discussed under the main building period.

#### 650/640 TO 600 B.C.

From the Late Orientalizing period (630-600 B.C.) several buildings are attested in Central Italy (*Fig. 3 and Plan 2*).<sup>65</sup>

In Northern Etruria they are found at Castelnuovo Berardenga (610-590 B.C.); L'Ago dell'Accesa (from c. 650 B.C. onwards); Murlo, the South-East Building, the Lower Building, and the Southern Building (all dated to 640-630 B.C.); Roselle, the earliest phase in square E 10-11 (625-600 B.C.), *Casa a due vani*, phase 1 (7th century B.C.?), *Casa dell'amphiteatro* (late 7th century B.C.), and *Casa C* (late 7th/early 6th centuries B.C.).

In Southern Etruria they are known from Acquarossa, several buildings, e.g. zone F, Building D, G, and J, zone G, Building B, and zone L (all dated from 625-600 B.C.); Narce, Monte Li Santi (early phase, dated to the Late Orientalizing period); San Giovenale, several buildings on the Borgo (all dated to the late 7th-early 6th centuries B.C.); Tuscania (only architectural terracottas from the cemetery, dated to 625-600 B.C.); Vignanello (only architectural terracottas, dated to the late 7th century B.C.); Vulci, Cuccumeletta (dated to the late 7th century B.C.).

In Latium remains are found at Ficana, zone 4 (dated to the late 7th/early 6th centuries B.C.), zone 5a, phase 1 (dated to the second half of the 7th century B.C., and phase 2 (dated to the late 7th/early 6th centuries B.C.), zone 5b, phase 1 (dated to the second half of the 7th century B.C.) and phase 2 (dated from the late 7th century B.C. onwards), zone 6a, Building F (dated to the late 7th century B.C.); Lavinium, Vigna Nuova (dated from the late 7th to the mid-6th centuries B.C.); Rome, Regia, phase 1-2 (dated to the late 7th century B.C.), the Comitium, Curia Hostilia? (only tiles)(dated to the late 7th century B.C.); and Satricum, Building AA (dated to the second half of the 7th century B.C.).

Thus buildings in this period are found both in Northern Etruria, Southern Etruria, and Latium, and both smaller buildings like in Acquarossa, San Giovenale and Ficana are known, as well as large

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<sup>65</sup> This plan (and the following plans) only includes buildings that can be dated with some certainty. Thus the houses at L'Ago dell'Accesa and most of the houses at Acquarossa and San Giovenale are not included in the plans since they are dated from the late 7th century throughout the 6th century B.C.

monumental buildings such as the Lower Building at Murlo and the two complexes at Lavinium, Vigna Nuova.

#### 600/590 TO 550 B.C.

From the early Archaic period (600-580 B.C.) several more buildings are known (*Fig. 4 and Plan 3*).

In Northern Etruria they are found at Murlo, the Upper Building (dated to the early 6th century B.C.) and the Northern Building (dated to c. 600 B.C.) and at Roselle, *Casa a due vani* (dated to the first half of the 6th century B.C.).

In Southern Etruria they are found at Acquarossa, e.g. zone F, Building E (dated to 600-575 B.C.); Gravisca, phase 1 but considered a Greek building (dated to 580 B.C.); Poggio Buco, the monumental building (dated to the early 6th century B.C.); San Giovenale, e.g. the building north of the river and several buildings on the Borgo (dated to the first half of the 6th century B.C.); Stigliano (several buildings, dated to the first half of the 6th century B.C.); and Veii, Piazza d'Armi, the *oikos* (and probably also other buildings)(dated to the early 6th century B.C.).

In Latium they are found at Gabii, the eastern area, phase 1 and 2 (dated from 580 to 550 B.C.); Rome, Forum Romanum, Regia phase 3 (dated to the first quarter of the 6th century B.C.), the house on the Via Sacra (though the dating is uncertain), S. Omobono, phase 1 (dated to the first quarter of the 6th century B.C.); and Satricum, the acropolis, the *oikos* beneath the later temples (dated to the early 6th century B.C. and the other *oikoi* (dated to 590-580 B.C.), courtyard Building A and B (dated to 580-560 B.C.) and the south-west area, phase 1 (dated to 590-540 B.C.).

Thus in this period an increase in buildings is seen throughout Central Italy, but especially in Southern Etruria and Latium, though the amount of buildings was still limited. Like in the previous period both smaller and larger monumental buildings are known.

#### 550/540 TO 520 B.C.

Several buildings are known from this period (*Fig. 5 and Plan 4*).

In Northern Etruria they are found at Arezzo, Fonte Veneziana (probably only precinct walls) (dated to 550-525 B.C.); Chiusi, the stone building (dated to 550-525 B.C.); Marsiliana d'Albegna (dated to the second half of the 6th century B.C.); Podere Tartuchino, phase 1 (dated to the second half of the 6th century B.C.); and Roselle, *Casa dell'Impluvium* (dated to the second half of the 6th century B.C.).

In Southern Etruria they are found at Acquarossa, e.g. zone F, Building A-C and zone C, Building F (dated to 550 B.C.); Castel d'Asso (only architectural terracottas) (dated to 550 B.C.); Cerveteri, Vigna Marini Vitalini (only architectural terracottas), Vigna Parrochiale (architectural terracottas dated to the second half of the 6th century B.C.), Valle Zucchara (dated to the second half of the 6th century B.C.), Vigna Renzetti (dated to 550-540 B.C.), cemetery of Banditaccia (second half of the 6th century B.C., Luni sul Mignone, House A (dated to the second half of the 6th century B.C.); Montetosto (dated to 530-520 B.C.); Orvieto, Vigna Grande (only architectural terracottas dated to 530-520 B.C.); Punta della Vipera (dated to 540-530 B.C.); Pyrgi (only architectural terracottas dated mostly to 530-520



B.C.); Quartaccio di Ceri (dated to 530-520 B.C.); Regisvilla (dated to the second half of the 6th century B.C.); Tarquinia, Pian di Civita, *Area sacra*, now a roofed structure (dated from the mid-6th century B.C.); Ara della Regina, phase 1 and 2 (dated from 550 B.C.), the southern slope near the western end (only architectural terracottas, dated from 530 B.C.); Veii, NW-gate, the building with stone foundations (dated from the mid-6th century B.C.), Portonaccio, Building I (dated to 550-525 B.C.), and the building beneath Building A (dated to 540-530 B.C.).

In Latium they are found at Acqua Acetosa Laurentina (dated to 550-480 B.C.); Ardea, the building on the acropolis (dated to 540-530 B.C.); Cisterna di Latina (only architectural terracottas, dated to 540-530 B.C.); Ficana, zone 6a, phase 2 (dated to the second half of the 6th century B.C.); Lavinium, the building near the 13 altars, phase 1 (dated to the second half of the 6th century B.C.); Rome, the houses on the slope of the Palatine (dated to 530 B.C.), Forum Romanum, Regia, phase 4 (dated to 540-530 B.C.), the Esquiline (only architectural terracottas dated from 540 B.C.), S. Omobono, phase 2 (dated to 540-530 B.C.); Satricum Temple I (dated to 540-530 B.C.), the south-west area, phase 2 (dated to 540-490 B.C.); and Velletri, phase 1 (dated to 540-530 B.C.).

In this period a further increase in buildings is seen, especially in Southern Etruria, while very few new buildings were built in Northern Etruria. Still both small and larger monumental buildings are seen.

520/510 TO 480/70 B.C.

From this period most Etruscan Archaic buildings can be dated (*Fig. 6 and Plan 5*).

In Northern Etruria they are found at Arezzo (only architectural terracottas, dated to 480-470 B.C.); Doganella (dated from the late 6th century B.C.); Marzabotto, the acropolis (structure A and C and the building north of the acropolis) and the area of the town (all dated to 500-475 B.C.); Podere Tartuchino, phase 2 (dated to the first half of the 5th century B.C.); Populonia, San Cerbone (only architectural terracottas, dated to the Late Archaic period) and the industrial area (dated to the late 6th/early 5th centuries B.C.); and Roselle, Podera la Mota (only terrace walls and architectural terracottas dated to the early 5th century B.C.).

In Southern Etruria they are found at Castro, Ischia di Castro (dated to 525-500 B.C.); Cerveteri, Vigna Parrocchiale, the rectangular building (dated to the early 5th century B.C.), Vigna Parrocchiale, the elliptical structure (dated to the early 5th century B.C.), San Antonio, the two monumental buildings (dated to the late 6th century B.C.), Vignali (dated to the Late Archaic period), Mandonella (dated to the Late Archaic period),<sup>66</sup> Fossa della Mola, two buildings (dated to the late 6th century B.C.); the north-eastern area of the plateau (dated to the Late Archaic period), Piazza S. Pietro (probably dated to the Late Archaic period); Civita Castellana, Vignale, the larger and smaller temple (only architectural terracottas, dated to the Late Archaic period), Celle (dated to the Late Archaic period), Sassi Caduti (dated to the early 5th century B.C.); Luni sul Mignone, House B (dated to 500-

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<sup>66</sup> The building dates from the late 7th/early 6th centuries B.C., but what this is based on is not clear. I have chosen to place it in this period because of the date of the Late Archaic architectural terracottas.

475 B.C.); Gravisca, phase II; Narce, Monte Li Santi (dated to the Late Archaic period, though it is uncertain how much belonged to this period); Orvieto, Belvedere (dated to the early 5th century B.C.), San Giovanni (only architectural terracottas, dated to the early 5th century B.C.), Piazza Buzi (only architectural terracottas, dated to the Late Archaic period), Piazza Angelo (only architectural terracottas, dated to the Late Archaic period), Campo della Fiera (dated to c. 500 B.C.), Cannicella (dated to the early 5th century B.C.), San Giovenale, the building north of the bridge, phase 1.2 (dated to the late 6th century B.C.) and phase 2 (dated to the early 5th century B.C.), Pyrgi, Building B (dated to 510 B.C.), Building A (dated to 490-480 B.C.), the so-called cellae (dated to 510 B.C.), *Area Sud*, Building Gamma (dated to the first half of the 5th century B.C.);<sup>67</sup> Sasso di Furbara (dated to 520-510 B.C.); Talamone (only architectural terracottas, dated to the late 6th-early 5th centuries B.C.); Tarquinia, Building Beta, (a total rebuilding) and *Area sacra* was partially roofed (dated to the Late Archaic period); Veii, Località Campetti, Building A-B (dated to the late 6th century B.C.), Località Campetti, area of the excavations of 1947 and 1967 (only architectural terracottas, dated to the Late Archaic period), Località Campetti, area of the excavations between 1965-1976 (dated to the late 6th century B.C.), Veii, Portonaccio, Building A (dated to 500 B.C.); Vetralla (dated to the Late Archaic period); Vetulonia, Proietti Lepri (only architectural terracottas, dated to the early 5th century B.C.); Volterra (dated to the early 5th century B.C.); Vulci, Fontanile di Legnisina (dated to the early 5th century B.C.), Ponte Sodo (dated to the early 5th century B.C.), and the plateau of the town (dated to the late 6th century B.C. onwards).

In Latium they are found at Ardea, Piazza Marconi (dated to the Late Archaic period) and Casalinnaccio (dated to the late 6th century B.C.); Artena (only architectural terracottas, dated to the late Archaic period); Castel Savelli (only architectural terracottas, dated to the early 5th century B.C.); Fidenae, Poggio di Villa Spada (dated to the Late Archaic period); Frosinone (only architectural terracottas, dated to the Late Archaic period); Gabii, the Juno sanctuary (only architectural terracottas, dated to the Late Archaic period); Lanuvium (dated to the early 5th century B.C.); Lavinium, the remains beneath temple A (dated to the early 5th century B.C.), the building near the 13 altars (dated to the first half of the 5th century B.C.), the eastern sanctuary (only architectural terracottas, dated to the late Archaic period), *Locus Solis Indigetis*/Tor Vaianca (dated to the first half of the 5th century B.C.); Lunghezza/Collatia (only architectural terracottas, dated to the late 6th century B.C.); Norba (dated to the early 5th century B.C.); Ostia (only architectural terracottas, dated to the Late Archaic period); Palestrina (only architectural terracottas, dated to 500-480 B.C.); Rome, the Capitol temple (dated to 510 B.C.), the Palatine, Building N (dated to the early 5th century B.C.), Regia, phase 5 (dated to the late 6th/early 5th centuries B.C.), the temple of Castor and Pollux (dated to 484 B.C.), the temple of Saturn (dated to 498 B.C.), Velia (only architectural terracottas, dated to the Late Archaic period), EUR (only architectural terracottas, dated to the Late Archaic period); Satricum, temple II (dated to 500-480), courtyard building C (dated to 530/520-490 B.C.), and stoai A', B', and D' (dated

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<sup>67</sup> The late 6th century B.C. architectural terracottas may have belonged to this building or another building in the vicinity.

to 530/520-490 B.C.); Segni (only architectural terracottas, dated to the Late Archaic period); Tivoli (only architectural terracottas, dated to the Late Archaic period); Torino (dated to the Late Archaic period); and Velletri, phase 2 (dated to the early 5th century B.C.).

Thus the tendency from the previous period continued with a further increase in buildings, especially in Southern Etruria but also in Latium. With the exception of the newly founded "colony" in Marzabotto in the Po Valley very few buildings were erected in the northern part of Etruria. Smaller buildings were still built but in this period large monumental buildings dominated. It is significant that the settlements of both Acquarossa, San Giovenale, L'Ago dell'Accesa, and Ficana (all minor settlements, probably of an agricultural nature (with the exception of L'Ago dell'Accesa which must have been related to mining) decline around 500 B.C. At the same time the larger Etruscan centres (especially notably in Cerveteri) built a large number of (more or less) monumental buildings. Even though the settlement areas of these larger settlements have not been found yet, it is natural to assume that these must also have been enlarged in this period. Perhaps this indicate that smaller settlements were abandoned for larger ones, already in existence.

In Latium several new settlements were seen in this period (e.g. Norba, Torino, and Fidenae), but a few of the earlier ones continued (such as Lavinium). In Satricum temple II was built, but shortly after the site was more or less abandoned.

## CHAPTER 3

# SECONDARY EVIDENCE FOR ETRUSCAN ARCHITECTURE

Besides the preserved remains of Etruscan buildings, a number of other types of artefacts help to increase our knowledge of Etruscan architecture in this early period as well as proving us with means of reconstructing the buildings.

The main evidence comes from hut urns, house models, cippi, votive models, and chamber tombs. Representations of buildings are also seen on other media such as on tomb painting and stelae.

### FUNERARY MODELS AND FUNERARY MONUMENTS WITH REPRESENTATIONS OF BUILDINGS

#### HUT URNS FROM THE EARLY IRON AGE

Approximately 200 hut-urns and biconical urns with lids in the shape of a roof are preserved.<sup>68</sup> Apart from the hut urns, 33 urns with lids in the shape of a roof exist.<sup>69</sup>

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<sup>68</sup> For hut urns in general see Bartoloni *et al.* 1987.

<sup>69</sup> These are found at Bisenzio, Sasso di Furbara; Monti di Tolfa; Rome; Osteria dell'Osa; Castiglione;

### Provenance, material, and technique

All hut urns are *pozzo* graves except one which was found in a habitation area, in Acqua Acetosa Laurentina.<sup>70</sup> Almost all urns are found in Central Italy: 26% in Northern Etruria, 35% in Southern Etruria, 30% in Latium, less than 1% in Campania, and 8% is without provenance (*Fig. 7* - note that Fiano di Romano and Populonia is not on the plan).<sup>71</sup> They date from the Late Bronze Age (*Bronzo Finale*) to the Early Iron Age (10th-8th centuries B.C.). The urns from Latium Vetus are concentrated in the 10th and 9th centuries B.C. (Latium period I-IIA), while the ones from Etruria date from the 9th and 8th centuries B.C.<sup>72</sup>

The urns are almost all made of clay, some with additional metal foil. The only certain exception is the bronze hut urn from Vulci (*Fig. 8*).<sup>73</sup>

### Architectural features

The size of the urns varies: the smallest circular urns have a diameter of 17 cm,<sup>74</sup> while the largest have a diameter of 63 cm. There is a clear tendency to large urns in Northern Etruria, medium-sized urns in Southern Etruria, and smaller urns in Latium.<sup>75</sup>

Grottaferrata; Marino; Castel Gandolfo; Pratica di Mare; and Satricum. Except for the three lids from Southern Etruria, all are found in Latium. The ones from Etruria date from the 10th-9th centuries B.C., while the ones from Latium date from the second half of the 9th century B.C. (= period IIA). Only one from Pratica di Mare dates from the 10th century B.C. (= period I). The one from Satricum date from period IIA-IIB (Bartoloni *et al.* 1987, 247-263).

<sup>70</sup> Bartoloni *et al.* 1987, 80, cat. no. 25. The fragment reported from Stefani's excavations at Veii, Portonaccio, 1953 is dubious (Bartoloni *et al.* 1987, 118, cat. no. c, fig. 104c).

<sup>71</sup> 52 in Northern Etruria (Populonia (cat. no. a); Vetulonia (cat. nos. 1-51)); 69 in Southern Etruria (Bisenzio (cat. nos. 52-64); Vulci (cat. nos. 65-74); Tarquinia (cat. nos. 75-82); Veii (cat. nos. 83-92 and b-c); Allumiere (cat. no. 93); Monte Tosto (cat. nos. 94-115); Cerveteri (cat. nos. 116-117); Fiano Romano (cat. no. d); Sabina (cat. no. 118)); 59 in Latium (Rome (cat. nos. 119-125); Osteria dell'Osa (cat. nos. 126-140); Castiglione (cat. no. 141); Colonna (cat. no. 142); Grottaferrata (cat. nos. 143-151); Marino (cat. nos. 152-154); Rocca di Papa (cat. no. 155); Castel Gandolfo (cat. nos. 156-171); Albano (cat. no. 172); Velletri (cat. no. 173); Colli Albani (cat. no. 174); Pratica di Mare (cat. nos. 175-176); 1 in Campania (Pontecagnano (cat. no. 177)); and 17 without a provenance.

<sup>72</sup> For the absolute chronology of the prehistoric periods I follow the Italian chronology (see e.g. G. Bartoloni, "Le comunità dell'Italia centrale tirrenica e la colonizzazione greca in Campania", *Etruria e Lazio arcaico, Atti del incontro di studio, QArchEtr* 15, 1987, 44; Bartoloni 1989, 101, diagram 3). See also my chronological chart.

<sup>73</sup> Bartoloni *et al.* 1987, 53-54, cat. no. 67, figs. 31-33, tav. XVII.

<sup>74</sup> In this I have excluded the specific type from Osteria dell'Osa consisting of a biconical shaped urn with a roof-shaped lid (cat. nos. 126, 138, and 139).

<sup>75</sup> Northern Etruria (only Vetulonia): 18 urns varying in size from 30 to 63 cm in diameter.

Southern Etruria: 19 urns varying from 17 to 37 cm, the majority between 30 to 40 cm (the size of the urns varies within

Southern Etruria, e.g. the urns from Bisenzio are very small (from 17 to 23 cm in diameter, while the urns from Tarquinia are large (from 37 to 43 cm).

Latium: 45 urns varying from 18 to 37 cm in diameter, the majority between 20 to 30 cm.

The smallest oval/elliptical urn measures 17 x 22.5 cm, the largest 48 x 38.5 cm. There may be a tendency to smaller urns in Latium, and medium-sized or larger urns in Southern Etruria.<sup>76</sup> The statistic material, however, is scarce.

The smallest rectangular urn measures 16 x 11 cm, the largest 54 x 45 cm. The difference in size cannot be connected to specific areas, and again the statistic material is limited.

The question is whether this difference in size reflects a similar difference in the size of the real huts, or whether the difference is due to local taste. Unfortunately, until more huts have been excavated and published (especially in Etruria), the problem cannot be solved.

On altogether 125 of the hut urns the shape can be determined. These urns are normally circular in shape (76%), though oval/elliptical (13%) and rectangular urns (11%) are known.<sup>77</sup> The circular hut urns are mostly found in Latium, altogether 47%, while 22% originate from Northern Etruria, 21% from Southern Etruria, 1% from Campania, and 9% are of unknown provenance.<sup>78</sup> Of the oval/elliptical hut urns 50% originate from Southern Etruria, 19% from Northern Etruria, 12% from Latium, and 19% are of unknown provenance.<sup>79</sup> Of the rectangular hut urns 50% originate from Southern Etruria, 29% from Latium, and 21% are of unknown provenance.<sup>80</sup>

Even if the statistic material which I have based these figures on is limited (especially regarding the circular and oval/elliptical urns), there is a clear tendency that hut urns with a circular ground-plan were most common in Latium, but still fairly common in both Southern and Northern Etruria. Furthermore, oval/elliptical urns were most common in Southern Etruria, though some are known

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<sup>76</sup> Southern Etruria: 8 urns varying from 27 x 22 cm to 48 x 38.5 cm. These urns fall in two groups: a smaller group, the size of which fall between 27 x 22 cm and 28.3 x 24.5 cm; and a larger group, the size of which fall between 40.5 x 29.5 and 48 x 38.5 cm.

Latium: the size is only known of one urn from Latium, which is 25 x 29.5 cm.

The smallest of the urns (17 x 29.5 cm) is without provenance.

<sup>77</sup> The following list is compiled from the catalogue in Bartoloni *et al.* 1987 (unfortunately, the typology on pp. 123-133 does not include all the urns with a known shape, and one urn, cat. no. 166, which is oval/elliptical, is placed within the circular urns. Furthermore it would have been a great help if the drawings of the urns had included a ground-plan):

Hut urns with an circular ground-plan: Etruria (1, 2, 3, 4, 5, 10, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 29, 38, 49, 52, 53, 57, 58, 59, 60, 66, 68, 69, 71, 74, 76, 78, 79, 80, 81, 83, 85, 86, 87); Sabina (118); Latium (119, 120, 121, 122, 123, 124, 126, 127, 128, 130, 131, 132, 133, 134, 136, 137, 138, 139, 141, 143, 144, 145, 146, 147, 148, 149, 152, 154, 155, 156, 157, 158, 159, 161, 162, 163, 164, 165, 170, 171, 172, 173, 174, 175); Campania (177); unknown provenance (179, 182, 183, 184, 185, 187, 188, 194).

Hut urns with an oval ground-plan: Etruria (16, 26, 27, 56, 62, 65, 67, 72, 73, 82, 93); Latium (160, 166); unknown provenance (180, 186, 193).

Hut urns with a rectangular ground-plan: Etruria (54, 55, 61, 63, 75, 77, 84); Latium (129, 135, 153, 176); unknown provenance (178, 181, 192).

<sup>78</sup> Vetulonia (21); Bisenzio (6); Vulci (5); Tarquinia (5); Veii (4); Sabina (1); Rome (6); Osteria dell'Osa (12); Castiglione (1); Grottaferrata (7); Marino (2); Rocca di Papa (1); Castel Gandolfo (11); Albano (1); Velletri (1); Colli Albani (1); Pratica di Mare (1); Pontecagnano (1); and without provenance (8).

<sup>79</sup> Vetulonia (3), Bisenzio (2); Vulci (4); Tarquinia (1); Allumiere (1); Castel Gandolfo (1); and without provenance (3).

<sup>80</sup> Bisenzio (4); Tarquinia (2); Veii (1); Osteria dell'Osa (2); Marino (1); Pratica di Mare (1); and without provenance (3).

from Latium and Northern Etruria. The rectangular ground-plans are primarily known from Southern Etruria, and to some extent from Latium, while they are unknown in Northern Etruria.

All types of ground-plans seem to have been used simultaneously. The circular and rectangular urns date from the 10th century to the 8th century B.C. (the ones from Latium to the 10th and 9th centuries B.C., the ones from Etruria to the 9th and 8th centuries B.C.). The chronology for the oval/elliptical urns is uncertain.<sup>81</sup> Thus there does not seem to be a chronological development from circular to oval to rectangular urns (see further chapter 4).

Only little evidence regarding foundations and walls can be gained from the hut urns. A few urns have a socle/base,<sup>82</sup> which may suggest a sunken floor (*Fig. 9*). Walls are smooth, which suggest a wattle and daub walls. They often have incised and in a few cases painted decoration. A white substance added to the surface of the urn is common.<sup>83</sup> Whether or not this reflects an actual decoration of the hut is difficult to determine (for a discussion of this see chapter 4).

Most hut urns have a door, placed on one of the short ends,<sup>84</sup> and sometimes also a window (often a false window).<sup>85</sup> Both doors and windows are rectangular (*Fig. 10*), with the exception of an arched window on an urn from Pratica di Mare.<sup>86</sup> There is vent-hole above the door on several of the hut urns. On a few hut urns are columns or posts (*Fig. 11*).<sup>87</sup>

### The roofs

Almost all hut urns have a hipped roof. In a few cases the urns seem to have a two-faced roof, which may be hipped at the rear end (*Figs. 12-13*).<sup>88</sup> All roofs have a central ridge, which is often curved, a *schiena*, that is shaped like a donkey's back. On a few rectangular or oval urns the eaves are fairly flat or with a low pitch, while the upper part of the roof is steeper (*Fig. 9*).

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<sup>81</sup> The only ones that can be dated are the two urns from Bisenzio (Bartoloni *et al.* 1987, cat. nos. 56 and 61), dated to Bisenzio IB, i.e. the 9th century B.C.

<sup>82</sup> Bartoloni *et al.* 1987, 52, cat. no. 65, fig. 29 and 98-99, cat. no. 158, fig. 73.

<sup>83</sup> Bartoloni *et al.* 1987, 131.

<sup>84</sup> The hut urns without doors have moveable lids (though some of the urns with a moveable lid also have a door). For hut urns without a door see Bartoloni *et al.* 1987, cat. nos. 54, 135, 155, 178, 181. A few have a false door such as cat. no. 176 and those with a biconical body (cat. nos. 126, 138, 139). In a few cases the hut urns have two doors (cat. nos. 85, 129, 132, 174) in which case one of the doors is placed on one of the long sides.

<sup>85</sup> For hut urns with windows see Bartoloni *et al.* 1987, cat. nos. 53 (four windows, one on each side wall and one on each fall of the roof), 72 (?), 74, 75, 76, 79, 80, 81 (?), 83, 86, 93, 110 (?), 130, 144, 176 (?), 177, 184 (?), 186.

<sup>86</sup> Bartoloni *et al.* 1987, cat. no. 176.

<sup>87</sup> Several urns have vertical ridges, and a few have plastic columns on each side of the door (e.g. Bartoloni *et al.* 1987, cat. nos. 152).

<sup>88</sup> Bartoloni *et al.* 1987, cat. nos. 54, 63, 180; Naso 1996, 359 n. 557. Bartoloni *et al.* 1987, 109, cat. no. 177 and Naso 1996, 359 n. 557 suggest that the hut urn from Pontecagnano has a two-faced roof, but the ridges in front seem to suggest a hipped roof. On the other hand Bartoloni *et al.* 1987 suggests that cat. no. 54 has a roof a *padiglione*.

All hut urns display thatched roofs with ridge-logs or extended cross pieces/ridge logs that may extend down the fall of the roofs - on some urns even down to the foundations of the hut)(*Fig. 13*).<sup>89</sup>

The inclination<sup>90</sup> of the roof varies from 52° to 23°, <sup>91</sup> the majority (c. 76%) between 35°-49°. 2% have an inclination of 50° or more and 17% an inclination between 30 and 34°. Only 5% of the urns have a roof inclination below 30° (between 23° and 28°). Even if we allow some variation between the roofs of the huts and the models, these figures seem to be reasonable in terms of depicting the pitch of a thatched roof (see also chapter 1).

### Roof decoration

Many urns have a plastic decoration, cut out of the end of the cross pieces (40%).<sup>92</sup> There are three main types: 1. "horns" (34%)(*Fig. 14*), animal protomes (5%)(*Fig. 15*), and human beings (1%)(*Fig. 16*).<sup>93</sup> "Horns" are found on hut urns from Northern Etruria, Southern Etruria, Latium Vetus, Sabina, and Campania.<sup>94</sup> Animal protomes are found only in Etruria.<sup>95</sup> These animals should possibly be interpreted as birds, though horses and felines may also be possible.<sup>96</sup> The provenance of the two urns with human beings is uncertain.<sup>97</sup> I find that the decoration on the hut urns must reflect a real decoration of the roof, cut out of the wooden ridge-logs or cross pieces. On a few hut urns, such as the one from Bisenzio, San Bernardino tomb 21, the decoration, consisting of animals along the long axis of the roof, are made independently of the ridge-logs (*Fig. 17*).<sup>98</sup>

<sup>89</sup> For thatched roofs in general see Fagerström 1988, 101-102.

<sup>90</sup> Measuring the inclination of the roof on hut urns is of course difficult, since many of the roofs are curved. I have based my measurements on 82 urns, thus excluding all urns with semicircular roofs, oddly shaped roofs, and too fragmentary roofs.

<sup>91</sup> The following calculations are based on the profile drawings in Bartoloni *et al.* 1987: 50° or more: 2 urns = 2,4%; 45°-49°: 12 urns = 14,6%; 40°-44°: 15 urns = 18,3%; 35°-39°: 35 urns = 42,7%; 30°-34°: 14 urns = 17,1%; 23°-28°: 4 urns = 4,9%.

<sup>92</sup> Of the altogether 198 known hut urns 78 have a decoration on the roof. 34 do definitely not have a decoration on the roof, and on the remaining 116 urns it cannot be determined whether or not the roof was decorated.

<sup>93</sup> The following are based on the catalogue in Bartoloni *et al.* 1987: Horns: cat. nos. 3, 53, 54, 55, 56, 58, 59, 62, 63, 66, 68, 74, 77, 80, 81, 82, 85, 87, 118 (?), 120, 121, 122, 123, 124, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 139, 141, 143, 144, 146, 147, 148, 149, 154, 157, 158, 159, 161, 162, 163, 164, 165, 167, 171, 176, 177, 179, 182, 183, 185, 187, 189, 190, 192, 194. Animal protomes: cat. nos. 2, 4, 25, 57, 65, 67, 72, 73, 79, 181, 188. Human beings: cat. nos. 180, 182.

<sup>94</sup> Vetulonia (1), Bisenzio (8), Vulci (3), Tarquinia (4), Veii (2), Campo Retiano (1), Rome (5), Osteria dell'Osa (13), Castiglione (1), Grottaferrata (6), Marino (1), Castel Gandolfo (10), Pratica di Mare (1), Pontecagnano (1). The remaining nine hut urns are without a provenance.

<sup>95</sup> Vetulonia (3), Bisenzio (1), Vulci (4), Tarquinia (1). The provenance of the remaining two hut urns is uncertain.

<sup>96</sup> Several scholars, however, have also claimed that they represent horses. See e.g. L. Lorenzo, *Roma primitiva e le origini della civiltà laziale*, Rome 1979, 137. For felines see further chapter 4.

<sup>97</sup> Bisenzio has been suggested for one of them (Bartoloni *et al.* 1987, cat. no. 182). For a discussion of the interpretation of these two urns see Damgaard Andersen 1993b, 27-29.

<sup>98</sup> Edlund Gantz 1972, 190, 193; Bartoloni *et al.* 1987, 47, fig. 26, tav. XIV,b.

There are some differences between the hut urns from Latium Vetus and Etruria:<sup>99</sup> the urns from Latium are small (in general not more than 30 cm in height), mostly circular in ground-plan, and with an emphasis on the structural elements such as logs on the walls. The roof is protruding (this feature is only seen in Latium). The urns from Etruria, especially from the coastal area, have an emphasis on architectural decorative elements such as animal protomes, incised decoration, and the application of metal foil, while the structural elements appear to be subordinate.

#### HOUSE URNS IN THE SHAPE OF BUILDINGS FROM THE ORIENTALIZING AND THE MIDDLE OF THE ARCHAIC PERIOD (*Diagram 1*)

A number of rectangular house urns from the 7th and early 6th centuries B.C. are known, which can be divided into two groups: group 1 from the first half of the 7th century B.C. (cat. nos. 1-4)(*Figs. A1-A2*), and group 2 from the second half of the 7th to the early 6th centuries (cat. nos. 5-15)(*Figs. A3-A13*). The red impasto Caeretan urns from group 2 (cat. nos. 5-13)(*Figs. A3-A11*) form a closed group.<sup>100</sup>

#### **Provenance**

The urns from the first half of the 7th century B.C. (group 1) have been found distributed widely in Etruria: two in Southern Etruria/the Faliscan territory (Veii and Civita Castellana) (cat. nos. 2 and 3)(*Fig. A1*) and two in Northern Etruria (Marsiliana d'Albegna and Vetulonia) (cat. nos. 1 and 4)(*Fig. A2*). Camporeale has suggested a Caeretan origin for the Vetulonia urn, and it is possible that all the urns originate from Southern Etruria.

Of the urns from the second half of the 7th century B.C. (group 2) the red impasto urns have been found in Cerveteri (cat. nos. 5-13)(*Fig. A3-A11*). The remaining ones (both very different from the Caeretan urns) have been found in Val di Sasso and Orvieto (cat. nos. 14-5)(*Fig. A12-A13*).

#### **Material and technique**

The urns of group 1 are all made of bronze, bronze with silverleaf, or wood with bronze plaques, while the ones from group 2 almost all are made of red impasto (some with a painted decoration) or

<sup>99</sup> For more details see Bartoloni, Beijer & De Santis 1985, 175-177; Bartoloni *et al.* 1987, 129-130; Maaskant-Kleibrink 1991, 82-83.

<sup>100</sup> Recently another urn of this types has been published (*Figs. 18-19*), without any known provenance. It measures H. 32 cm; L. 51 cm; W. 25.3 cm. It seems to be completely preserved. The urn is rectangular with six small tapering feet and a roof-shaped lid. Along the ridge of the roof is a projecting ridge, and on both sides are eight plastic logs or cross pieces, running from the top ridge of the roof to the eaves. On the ridge they terminate in short stubby transverse pairs of plastic "horns". Both short ends terminate in triangular gables. On the long side (or both sides ?) is a pair of incised antithetical lion-griffins. The inclination of the roof is 47°.

I doubt that this urn is genuine, especially because of the rendering of the roof. The small horns on the ridge are different from the remaining ones and looks more like they were inspired from a hut urn: the logs on the falls of the roof do not correspond well to short thick horns. Furthermore, all other house urns have rectangular feet (either four or six), but never tapering feet. The urn was bought at auction and is now in Mannheim, Reiss Museum (Cg 450). See K. v. Welck & R. Stupperich, *Italien vor den Römern. Aus der Antikensammlung der Reiss Museums Mannheim*, Mainz 1996, 113, cat. no. 161, Abb. 21.



bucchero. All are handmade, composed of clay plaques joined before firing, and the decoration as well as the colour most probably added before firing. The urns and the lids are made separately, since all urns have removable lids. Only the urn from Orvieto (cat. no. 14)(*Fig. A12*) is made of bronze.

### **Architectural features**

The size of the urns varies. The urns from group 1 vary in height from 30 cm to 42 cm; in length from 43 to 63 cm; and in width from 21 cm to 37 cm. The red impasto urns from Cerveteri from group 2 vary in height from 31.5 cm to 49 cm; in length from 30.5 to 55.5, and in width from 20.5 to 30.5 cm. The largest urn is the one without a known provenance (once Collezione Cima-Pesciotti) (cat. no. 9)(*Fig. A7*) and the smallest one Monte Abatone 123 (cat. no. 5)(*Fig. A3*). Of the remaining urns from group 2 the urn from Val di Sasso (cat. no. 15)(*Fig. A13*) seems to fall in the middle of the red impasto group (L. 39 cm), while the urn from Orvieto (cat. no. 14)(*Fig. A12*) is somewhat smaller (H. 22 cm; L. 37 cm). Whether this difference in size indicate a similar difference in size of the real house, is uncertain.

All house urns are rectangular. It is uncertain whether the sides of the urns from group 1 actually indicate walls. On the urn from Civita Castellana (cat. no. 2)(*Fig. A1*) the square fields may imitate vertical and horizontal beams.<sup>101</sup> This has been suggested for the urn from Marsilina d'Albegna (cat. no. 1), but from Minto's description this is not quite clear.<sup>102</sup> On the house urns from group 2 only the roof-shaped lid indicates an interpretation as a house. The walls of several urns of the Caeretan group have a painted decoration. Houses may have been decorated in a similar way, i.e. a painted decoration on clay plaster on the walls. This theory is supported by the fact that red and white wall plaster are found in many excavations (see chapter 4).

On most of the urns the gable is composed as an integrated part of the walls; on a few, however, the gable is part of the roof (cat. no. 12 and possibly also cat. no. 15)(*Figs. 10A and A13*).

No doors or windows are indicated on any of these house urns.

### **The roofs and the roof decoration**

All these house urns have two-faced roofs. One of the largest problems is to determine whether these roofs represent thatched or tiled roofs, especially whether ridges along the falls represent logs or rows of cover tiles. Regarding group 1 the date (first half of the 7th century B.C.) makes it fairly certain that they represent thatched roofs. On these urns architectural features of the roof can be seen primarily on the urn from Civita Castellana (cat. no. 2)(*Fig. A1*). It has barge boards, crossing each other at the ends of the gables which project above the apex. Along the ridge seven pairs of ridges crossing each other in the same manner, but these do not reach the eaves as the barge boards do. This evidence compared

<sup>101</sup> Andr n 1940, xxv, no. 11.

<sup>102</sup> Buranelli 1985, 54-55 (with references to E. Stefani, 'II - Nepi - Scoperte di antichit  nel territorio nepesino', *NSc* 1910, 218 n. 1). According to Stefani the sides of the urn reflect the inner walls of a house.

suggest that they should be interpreted as logs or extended cross pieces of a thatched roof, not as cover tiles.

The problem is larger for group 2, since the date (second half of the 7th century) makes both thatched and tiled roof possibilities. In the following I will examine the possible indicators for thatch contra tiles.

A possible indicator is the plastic roof decoration, i.e. whether ridges down the fall of the roof should be interpreted as cover tiles or logs/extended cross pieces, and whether the decoration represents architectural terracottas or a decoration cut out of the end of the logs. Four urns have ridges along the fall of the roof (cat. nos. 8, 9, 10, and 11) (*Figs. A6-A9*), while the roofs on five urns are smooth without any indications of tiles or ridges/logs (cat. nos. 5, 6, 7, 14, and 15) (*Figs. A3, A4, A5, A12, A13*). Considering that these date to the second half of the 7th century B.C. the ridges could be both cross pieces/logs and rows of cover tiles.

Both urns with ridges and urns with smooth roofs may have architectural decorations (cat. nos. 8, 9, 10, 11, 12, 14, 15) (*Figs. A6-A10 and A12-A13*). The plastic architectural decoration varies, but mostly it consists of "horn" or volute-shaped akroteria (cat. nos. 2, 8, 9, 10, 11, 12) (*Figs. A1 and A6-A10*) on the apex and along the ridge. One of the urns (cat. no. 11) (*Fig. A9*) also have animals along the eaves of the roof. On the Cima-Pesciotti urn (cat. no. 9) (*Fig. A7*) the gables seem to be protected by some kind of barge board or raking sima, and a similar phenomenon may be seen on the roof of the urn from Tomba delle Nave III (cat. no. 12) (*Fig. A10*).

The "horns" and volutes have parallels in terracotta akroteria on the tiled roofs at Murlo and Acquarossa, which date to around 630-610 B.C. Further parallels, dated to the 6th century B.C. are found in cemeteries, such as the so-called stelae from Populonia (see the appendix, Populonia) as well as in the stone akroteria on the Tomba del Bronzetto di Offerente (T. 58) in Populonia (see below). On the other hand the decoration on the roofs of these urns is very similar to the decoration on the thatched hut urns from the Early Iron Age.

The animals on the roofs have parallels both in the griffin and possibly also lion head protomes on the cover tiles from Acquarossa, zone G,<sup>103</sup> dated to the last quarter of the 7th century B.C., as well as the animals cut out of the cross pieces on the Early Iron Age hut urns.

Painted decoration is seen on most roofs, both smooth roofs and roofs with ridges (cat. nos. 5-8 and 10-13) (*Figs. A3-A6 and A8-A11*).<sup>104</sup>

Thus the roof decoration on the Caeretan urns may represent either a decoration cut out of the cross pieces, or architectural terracottas on a tiled roof and thus cannot be used as an indicator.

Strangely enough, it is often assumed that the roof on the urn from Cerveteri, Monte Abatone tomb 426 (cat. no. 11) (*Fig. A9*) is thatched, while the remaining of the Caeretan urns are tiled.<sup>105</sup> Buranelli's

<sup>103</sup> *Viterbo* 1986, 74-75, no. 51-53, tav. XV:2, fig. 49.

<sup>104</sup> For the painted decoration on the Cerveteri urns see Buranelli 1985, 53-54.

<sup>105</sup> Buranelli 1985, 53; Bartoloni, Beijer & De Santis 1985, 190. Other scholars seem to believe that they are all tiled (e.g. D. Ridgway, 'Demaratus and his predecessors', in G. Kopcke & I. Tokumaru (eds.), *Greece between the*

theory is based on two arguments: firstly the early date of this urn, which he believes it to be the earliest of the series from Cerveteri and dates to c. 650 B.C. However, Coen has now shown that it should be dated to the last quarter of the 7th century (see cat. no. 11) and that it is not earlier than the remaining urns, thus this argument is not valid. Buranelli's second argument concerns the ridges on the falls of the roof. Since they do not reach the eaves (as they would have done, had they been representing cover tiles), he interprets the ridges as extended cross pieces. This supports an identification of the roof as thatched. On several of the other urns the ridges, however, reach the eaves, but this does not necessarily indicate a tiled roof, since many ridges on hut urns (with thatched roofs) also reach the eaves.

To support the argument that the Monte Abatone urn represents a thatched roof, the inclination of the roof, which is  $36^{\circ}$  to  $37^{\circ}$ , can be added (see also chapter 1). Since all urns are contemporary and since the inclinations on most of the other Caeretan urns are around  $40^{\circ}$  (on the urn from Località Laghetto, tomb 77 (cat. no. 13)(*Fig. A11*), the inclination is even  $60^{\circ}$ ), they must consequently all depict thatched roofs. Only with two urns there is some doubt: the inclination of the urn from Cerveteri, Monte Abatone 123 (cat. no. 5)(*Fig. A3*) is only  $28^{\circ}$ , and the inclination of the urn from Cerveteri, Tomba della Nave III (cat. no. 12)(*Fig. A10*) is  $27^{\circ}$ - $29^{\circ}$ , thus both a thatched and a tiled roof are possibilities. Since the remaining urns represent thatched roofs, it seems most likely that these two urns also did.

The type of roof of the two remaining urns of group 2 is uncertain. Rosettes on the ridge are seen on the urn from Orvieto (cat. no. 14)(*Fig. A12*). The bucchero urn from Val di Sasso (cat. no. 15)(*Fig. A13*) is decorated with a feline head in the middle of the ridge and rosettes at the end of the gable, and a barge board or raking sima. We have no parallels for rosettes on the ridge. The closest parallels are the rosettes on the lateral sima from the Upper Building at Murlo. The feline heads have their closest parallel in the sarcophagus from Ceri (cat. no. 16)(*Fig. A14*), but there are otherwise no obvious parallels. The Upper Building at Murlo had felines and other figures as akroteria on the ridge, but they do not quite resemble the felines on the models.

Whether the two urns from Orvieto and Val di Sasso represent a tiled or a thatched roof cannot be determined. They are both dated to the late 7th century B.C. and thus both types of roofs are possible. The inclination is not certain, though the urn from Val di Sasso seems to have an inclination around  $40^{\circ}$ . This would suggest a thatched roof. The decoration on the roof does not have any parallels in the decoration on the hut urns and parallels to architectural terracottas are also not obvious. Considering that none of the urns have been preserved, I do not think that it is possible to determine whether the roofs are meant to be thatched or tiled.

Regarding the urns from group 1 the inclination of the roof of the urn from Civita Castellana (30°-31°) does not contradict an interpretation of the roof as thatched, and the urn from Tomba del Duce (cat. no. 4)(*Fig. A2*) does also seem to be fairly steep.

#### SARCOPHAGI AND "NAISKOI" IN THE SHAPE OF BUILDINGS FROM THE ORIENTALIZING TO THE MIDDLE OF THE ARCHAIC PERIOD (*Diagram 1*)

Besides sarcophagi with a possible roof-shaped lid only one "naiskos" (cat. no. 17)(*Fig. A15*) in the shape of a building has been preserved. The function of this "naiskos" is uncertain. The opening at the front could have been used for the placement of an urn, offerings to the deceased, or a statuette. This type of the opening has parallels in later Chiusine models/"naiskoi" (cat. nos. 34-36)(*Figs. A33-A35*) (see below).<sup>106</sup> The "naiskos" have several features in common with the sarcophagus from Ceri (cat. no. 16)(*Fig. A14*), even if they are made in different material (terracotta and stone). Both have a relief decoration on the long side, though with dissimilar motives, and both have reclining felines on the roof (on the ridge of the roof on cat. no. 16 and on the falls of the roof on cat. no. 17)(*Figs. A14-A15*). In date these two sarcophagi cannot be far apart. The early date of the sarcophagus from Ceri and the inclination of the roof (35°-40°) suggest that the lid represents a thatched roof, but the large reclining felines on the ridge would fit better on a tiled roof. Thus, both types of roofs are possibilities. Unfortunately, we do not know the inclination of the roof of the "naiskos", but the architectural decoration suggests a tiled roof.

The sarcophagi from Narce and Bisenzio (cat. nos. 18-19)(*Figs. A16-A18*) closely resemble each other. All consist of rectangular, elongated boxes or cists with a lid in the shape of a simple two-faced roof. The gable is part of the roof. It should be emphasized that it is not certain that a roof is intended since they are so schematical. I have divided these sarcophagi into three types. Type 1 is defined as a roof-shaped lid with more or less rounded falls. This type can be subdivided into 1a which has an indentation on both sides of the lower gable and a vent-hole (?) just below the apex of the gable (*Fig. A16,1*); and 1b which have a more rounded, but still steep roof, with no indentations, nor any vent-hole. The inclination of the roof in type 1a varies from 35°-42°, while it is not possible to measure the inclination of type 1b due to the curve, but it is fairly steep. Type 1 dates from the first half of the 7th century B.C.

Type 2 is defined as a roof-shaped lid with a clear two-faced roof with oblique falls. It can be divided into type 2a with a fairly steep two-faced roof with plain triangular gables (*Fig. 16A,2a*) and 2b with a less steep two-faced roof with a plain gable and a slight overhang (*Fig. 16A,2b*). The inclination varies in type 2a from 36°-43° and in type 2b from 22°-30°. Type 2a seems to date to the second half of the 7th century B.C., while 2b seems to date in the first half of the 6th century B.C.

<sup>106</sup> See also chapter 5 (on funerary buildings).

Type 3 resembles type 2, except that it has a hipped roof (*Fig. A16,3*). This type dates to the second half of the 7th century B.C.

From Bisenzio similar sarcophagi, belonging primarily to type 3, are known (cat. no. 19)(*Fig. A17*).

Because of the rendering of the roof and the date type 1a, 1b and 2a probably represent thatched roofs, while type 2b (with inclinations between 22° and 30°) most likely represents tiled roofs. Thatched roofs cannot be excluded though, since there is no difference between type 2b and 2a except for a slightly lesser inclination. Type 3 are much more problematical. If they date in the second half of the 7th century B.C., both thatched and tiled roofs are possibilities. It is also possible that type 3 is simply an artistic variation of type 2 and not meant to show actual roofs.

A unique type of sarcophagi are the ones from Civita Castellana, Celle T 8 (cat. no. 18a)(*Fig. A17*). They fall within type 2a, but unlike any of the others they have a painted decoration. The protruding felines are probably not imitations of architectural decoration, since they are not placed in the corners.

The sarcophagus from Cerveteri, T. degli Animali dipinti (cat. no. 20)(*Fig. A18*), should probably be reconstructed with a roof-shaped lid of a type similar to type 2.

### **House urns, sarcophagus, and "naiskoi" in the shape of buildings from the middle to the Late Archaic period (Diagram 2)**

From this period a number of house urns and sarcophagi is known,<sup>107</sup> primarily from the Chiusine area.<sup>108</sup> As can be seen from the catalogue, the number of house urns has increased considerably in the 6th and early 5th centuries B.C. compared with the 7th century B.C. With a few exceptions (cat. nos. 53-56)(*Fig. A51-A53*) the urns can be divided into three groups: the largest group consist of more than 20 urns and one sarcophagus (cat. nos. 21-43)(*Figs. A20-A42*) of a very similar type from Chiusi,

<sup>107</sup> I have excluded a few urns that I consider unlike representation of buildings. As examples can be mentioned several urns in the Vatican and the Villa Giulia, probably originating from Orte (once believed to originate from Veii, Tomba Campana). For these see C. Albizetti, 'Ritratti etruschi arcaici', *DissPontAcc* serie 2, vol. 14, 1920, 14-19, tav. II,3-III,1-4; T. Dohrn in W. Helbig, *Führer durch die öffentlichen Sammlungen klassischer Altertümer in Rom I: Die Päpstlichen Sammlungen im Vatikan und Lateran*, vierte Auflage, Tübingen 1963, 582-583, cat. no. 788; M. Cristofani & F. Zevi, 'La Tomba Campana a Veio. Il corredo', *ArchCl* 17, 1965, 1-35, esp. 17-21; Mansuelli 1974, tav. 190; Pfiffig 1975, 165, Abb. 62; F. Roncalli, 'Appunti sulle "urne veienti" a Bauletto', in *Studi in onore di F. Magi, Nuovi Quaderni dell'Istituto di Archeologia dell'Università di Perugia* 1, 1979, 157-167; S. Hummel, 'Etruskische Miscellen IV: Die Aschekisten in der Tomba Campana (Veji)', *ÖJh* 61, 1991/92, 27-32.

<sup>108</sup> Most urns from Chiusi seem to have had a lid in the shape of a two-faced roof. Several with a relief decoration are included in the monograph of Archaic Chiusine reliefs by Jannot (Jannot 1984). For the urns see especially Jannot 1984, 211-216. See also Bandinelli 1925, 482-496; E. Paribeni, 'I rilievi chiusini arcaici', *StEtr* 12, 1938, 59-139.

Unfortunately, the illustrations provided by Jannot focuses primarily on the reliefs, thus the shape of the sarcophagus, cippus or urn is not always clear. The dates proposed here are based on the absolute chronology suggested by Jannot 1984, 302.

Several urns have been proven to be false or to have a modern relief decoration. Some of these urns may, however, be Etruscan even if the decoration is modern. For these see Paribeni, 'I rilievi chiusini arcaici', *StEtr* 12, 1938, 137-139 (note, however, that the urn Paribeni F 5 (cat. no. 30 in this catalogue) is now considered Etruscan (Jannot 1984, 214 n. 119).

though one has been found in Orvieto, Cannicella (cat. no. 42)(*Fig. A41*) and one in Perugia (cat. no. 43)(*Fig. A42*). The second largest group consists of six very similar urns, all made of Greek marble (cat. nos. 44-49)(*Figs. A43-A47*), originating from Rome, Cerveteri, and Spina. The third group consists of three urns from Cerveteri; all characterized by having a series of plastic breasts attached to the lower end of the sides (cat. nos. 50-52)(*Figs. A48-A50*). Similar breasts are also seen on other Caeretan urns with a kline, dating to the late 6th century B.C.<sup>109</sup>

Two models or "*naiskos*" resemble the urns, but the lid is not removable (cat. nos. 34-35)(*Figs. A33-A34*).<sup>110</sup> On cat. no. 34 (*Fig. A33*) there is an open door.<sup>111</sup> A parallel to these can be seen in the "*naiskos*" from Cerveteri (cat. no. 17)(*Fig. A15*) (see above). They may also have been used as cippi. It has been suggested that originally a seated female figure was placed in the open door, as can be seen on a similar, though later model, now in the British Museum.<sup>112</sup> The podium from Chiusi (cat. no. 84)(*Fig. A78*) may also have had a similar function (see below).

### Material and technique

All the urns of the Chiusine group (cat. nos. 21-43)(*Figs. A20-A42*) are made of the local Chiusine stone, *pietra fetida*.

The second group consists of the urns all made of Greek marble (cat. nos. 44-49)(*Figs. A43-A47*).<sup>113</sup> Judging both from the material and the rendering, these urns must have been made in Greece.<sup>114</sup> Parallels for the urns have been found in Greece, primarily on Rhodes<sup>115</sup> and on Aegina.<sup>116</sup> Different elements of the urns also have parallels in South Italian and Sicilian urns.<sup>117</sup>

The three urns from Cerveteri are all made of clay and must have been locally manufactured (cat. nos. 50-52)(*Figs. A48-A50*).

### Architectural features

<sup>109</sup> Briguet 1968, 58-66, figs. 10-17, 20-23; M.-F. Briguet in L. Bonfante (ed.), *Etruscan life and afterlife*, Wiltshire 1986, 124, fig. IV-41.

<sup>110</sup> Jannot 1984, 215 (see also chapter 5 (on funerary buildings)).

<sup>111</sup> In the following "door" will be used even if only the door opening is preserved.

<sup>112</sup> See cat. no. 17 for references.

<sup>113</sup> Note that several more urns of this type were found on the Esquiline cemetery in Rome (see cat. no. 44)(*Fig. A43*), but most are now lost.

<sup>114</sup> Sassatelli 1977, 114-115 and 145-146; G. Sassatelli, 'Interventi sui marmi dell'Etruria Padana', in *Este e la civiltà paleoveneta a cento anni dalle prime scoperte, Atti del Convegno di Studi Etruschi ed Italici* (Este-Padova 1976), Florence 1980, 201-203; C. Martini in *Roma dei Tarquini* 1990, 252.

<sup>115</sup> Three urns from Ialysos, T. 254-255, all dated to the 6th century B.C. (G. Jacopi, 'Gli scavi nella necropoli di Jalisso', in *Clara Rhodos* III, 1929, 270-272, figs. 260-262) and T. 41 (L. Laurenzi, 'Necropoli Jalisei', in *Clara Rhodos* VIII, 1936, 14-15, 159-160, fig. 3). Other marble urns are reported to have been found in Rhodes, but these are not reproduced nor described (G. Jacopi *op.cit.* 8, 273). See also Sassatelli 1977, 114-115.

<sup>116</sup> G. Welter, 'Aeginetica I-XII', *AA* 53, 1938, 33, figs. 22-23; Sassatelli 1977, 114-115.

<sup>117</sup> Sassatelli 1977, 114-115 (with further references).

The size of the urns varies considerably. The height of the Chiusine urns varies from 23 cm to 60 cm; the length from 37 to 85 cm; and the width from 19 cm to 52 cm. The marble urns are more uniform in size (the height varies from 31 cm to 42 cm; the length from 59 cm to 72 cm, and the width from 30 cm to 38 cm), and the Caeretan urns are almost of the same size, though the height varies considerably (19 cm to 46 cm). The significance of this variation is uncertain.

All house urns and sarcophagi are rectangular. On most of the Chiusine urns and on all of the marble urns the gable is an integrated part of the roof, but on the Caeretan urns the gable may be either part of the roof or of the walls.

On the urn from San Gimignano (cat. no. 56)(*Fig. A53*) painted lines may indicate the woodwork structure of the walls. On one of the short sides of an urn from Chiusi (cat. no. 34)(*Fig. A33*) is preserved the upper part of an open *porta Dorica* (a door that is trapezoidal in shape and framed with a relief decoration). Otherwise, no doors or windows are indicated on any of the house urns.

### The roofs

There are several different types of roofs: some only have the two-faced roof without any details while others have representations of cover tiles, pan tiles and ridgepole tiles. The latter are especially the case with the Chiusine urns (cat. nos. 21-43)(*Figs. A20-A42*), where tiles are seen on cat. nos. 21, 22, 28, 32, 40 (*Figs. A21, A27, A31, and A39*). The inclination of the roofs varies from 10° to 25°, thus these must all represent tiled roofs. In four cases the gables are recessed (cat. no. 28, 32, 34, and 35)(*Figs. A27, A31, A33, and A34*), i.e. a flat or slightly slanting "floor" visible within the gable, thus forming a third (and fourth) fall of the roof. The extra "falls" can be either plain (cat. no. 34)(*Fig. A33*) or covered with cover tiles, pan tiles, and antefixes (cat. nos. 28, 32 and 35)(*Fig. A27, A31, and A34*). Parallels for this type of gable can be seen in the votive model from Nemi, dated to the 4th-3rd centuries B.C.<sup>118</sup>

On the Caeretan group the inclination of the roof varies from 26° to 31°. Tiles are not indicated on any of these roofs. On the marble urns the inclination varies from 14° to 18°, with the exception of cat. no. 47 (*Fig. A46*), which is approximately 30° (since the inclination is measured from a sketch, this inclination may not be accurate). There are no representations of tiles, but because of the low inclination all of these roofs probably represent tiled roofs.

On the San Gimignano urn (cat. no. 56)(*Fig. A53*) the woodwork structure of the roof may be inferred from the painted lines on the lid, probably indicating rafters. The inclination is unknown.

### Architectural decoration on the roofs

Representations of architectural terracottas can be seen on many models. On the Chiusine models akroteria (felines or birds), antepagmenta (plain or gorgoneions), antefixes (plain or gorgoneions), and

<sup>118</sup> Staccioli 1968a, 39-40, cat. no. 30, tav. XXIV-XXXVII; *Villa Giulia* 1980, 263, no. 360 (ill.); *Civiltà degli etruschi* 1985, 264, cat. no. 10.7 (ill.); F. Melis & F. Ridgway, 'Mysteries of Diana: Sulla nuova esposizione dei materiali Nemonensi nel Castle Museum of Nottingham', *Archeologia Laziale* 8, *QArchEtr* 14, 1987, 218-226.

simas are seen. A similar kind of decoration is seen on the urns of the Caeretan group consisting of akroteria (sphinxes or volutes), antepagmenta (discs), and simas, and on the marble urns akroteria (floral) and simas are seen.

The roof-shaped lid has not been published on the urns from Tarquinia and Orvieto (cat. nos. 53-55)(*Figs. A51-A52*), and on the urn from San Gimignano (cat. no. 56)(*Fig. A53*) there is no decoration on the roof.

It is often difficult to determine whether antepagmenta or the ends of the central beam/tie beams are intended. At least some should be interpreted as antepagmenta as can be seen on a later urn from Arezzo (*Fig. 20*).

### **Relief decoration on the urns**

Several Chiusine urns and the sarcophagus have reliefs (one to four) on the sides. It is possible that the scenes on these reliefs are related to the type of building that the urn may represent. These reliefs have been preserved on 11 urns. The most common scene is the banquet (some have more than one banquet scene) (cat. nos. 23, 24, 25(?), 32, 33, 36, 38(?), 39, and 43)(*Figs. A22, A23, A24, A31, A35, A37, and A38*), prothesis (cat. no. 21, 24, and 27)(*Figs. A20, A23, and A26*), dancing (cat. no. 23, 37) (*Figs. A22 and A36*), and hunt (cat. no. 33 and 34)(*Figs. A32 and A33*). Many scenes are only seen on one urn (warriors, mourning, riders, marriage, hunting, sphinxes, and procession). The prothesis and the mourning scenes are related to death, but other scenes may be interpreted as related to death, such as the sphinx and the banquet may represent a funeral banquet (see also chapter 5 on funerary buildings).

### STELAE, CAPSTONES, TUFA CONTAINERS, AND CIPPI IN THE SHAPE OF BUILDINGS

(*Diagram 3*)

A few early stelae and capstones probably represent huts with thatched roofs. They are all found in Southern Etruria (Veii, Tarquinia, Bisenzio), and the Faliscan area.

Three stelae are known. The top of at least one of the two stelae from Tarquinia (cat. nos. 57-58)(*Figs. A54-A55*), dated to 9th or 8th century B.C., is in the shape of a thatched roof, while the other is uncertain. The roof is hipped with incised lines indicating thatching, and at the front of the roof a vent-hole is indicated. The stele from Bisenzio (cat. no. 59)(*Fig. A56*), probably dated to the 8th-7th centuries B.C., shows a rounded, fairly high-pitched two-faced roof, probably thatched.

Several capstones of tufa of a type, which resembles these stelae, were found at Veii (*Fig. 21*).<sup>119</sup> The ones from Veii are all in the form of a large, circular or slightly oval disc with a prominent dorsal ridge forming an elongated hump near the middle of the upper surface. Another type was bossed instead of ridged.

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<sup>119</sup> Grotta Gramiccia, the "GGX" Cemetery Area, Vacchereccia, Quattro Fontanili, and Casale del Fosso (Ward-Perkins 1961, 44-46, 94-99, figs. 13, 35; Bartoloni 1989, 121, fig. 5.12). For cippi and capstones in general see Minto 1950-1951; Steingraber 1991.



Similar capstones are also known from the Faliscan territory (*Fig. 22*).<sup>120</sup> The Faliscan capstones vary somewhat in size and shape; some are covers for rock-cut funerary shafts, while others functioned as lids for the receptacles where the funerary urn was placed. Capstones of a similar type are also known from Vetulonia.<sup>121</sup>

These capstones are all dated to the Late Villanovan and Orientalizing periods. Whether or not all these capstones represent roofs of huts or not is uncertain. If they are to be interpreted as roofs, the inclination is very low (between 22° and 37°).

Also, from the Faliscan area several tufa containers for urns are known. The lids of these containers resemble roofs of huts.<sup>122</sup>

Several cippi in the shape of buildings are known. The earliest is from the Orientalizing period from Canale Monterano (cat. no. 60)(*Fig. A57*) and probably represents a hipped thatched roof.

The Archaic cippi provide much more architectural evidence.<sup>123</sup> The one from Castel d'Asso (cat. no. 61)(*Fig. A58*) and the one from Tuscania (cat. no. 64)(*Fig. A59*) closely resemble each other. They are cubic with a wider base. The one from Tuscania is placed on a podium - whether this was also the case with the one from Castel d'Asso is unknown. The doors are of the *porta Dorica* type and very large. Both have two-faced roofs with a volute decoration at the front gable. Below the roof is a painted cornice. The cippus from Castel d'Asso has a separately made roof.

#### STELAE AND CIPPI WITH REPRESENTATIONS OF BUILDINGS (*Diagram 4*)

The earliest relief showing a building is the Bologna stele, dated to the mid-8th century B.C. (cat. no. 65)(*Fig. A60*). The building represents a simple hut with a thatched roof, judging from the inclination of the roof (36°-43°) and the early date. Two rectangular windows are indicated, but no door. It is possible that the two oblique lines dividing each part of the roof and the central line dividing the roof represent the woodwork of the roof, i.e. a king-post and two oblique supports in the gable.

On the *pietra Zannoni*, probably from the late 7th century B.C., is a column - one of the earliest "Etruscan" columns (cat. no. 66)(*Fig. A61*). If the capital is Aeolic, it is the earliest example of an Aeolic capital in Northern/Central Italy. The scene has been interpreted as a funeral procession, but the significance of the column itself is not clear - perhaps it symbolizes a funeral building? (for funeral buildings see further chapter 5).<sup>124</sup>

<sup>120</sup> Narce, Petrina A, T 32 (X) (Barnabei *et al.* 1894, 421, fig. 45; Ward-Perkins 1961, 44). Another example is from Sepolcreto di Monterano N.N.E T 27 (XIbis) (Cozza & Pasqui 1981, 64 (ill.)).

<sup>121</sup> Minto 1950-1951, 36-42, figs. 12, 16; Steingraber 1991, 1082, type 7, fig. 9.

<sup>122</sup> Narce, Petrina A, tomb 4 (no. XXXIV) (Barnabei *et al.* 1894, 403-405, tav. IV, 10); Narce Petrina A, tomb 25 (no. V) (Barnabei *et al.* 1894, 417, fig. 48); Narce, Monte lo Greco tomb 21 (Barnabei *et al.* 1894, 443); Narce, terzo sepolcreto a sud di Pizzo Piede, tomb 6 (Barnabei *et al.* 1894, 479, fig. 50).

<sup>123</sup> The large number of cippi in the shape of houses from the cemeteries of Cerveteri are all later, from the 4th to the 1st centuries B.C. (M. Blumhofer, *Etruskische Cippi. Untersuchungen am Beispiel von Cerveteri*, Köln 1993).

<sup>124</sup> Meller Padovini's suggestion that it is connected to a sacred tree is not convincing (P. Meller Padovini, *Le*

All the remaining representations of buildings are later, dating to the late 6th or early 5th centuries B.C. These consist of one urn and five cippi, all from the Chiusine area (cat. nos. 67-72)(Figs. A62-A66). Cat. nos. 67-69 (Figs. A62-A64) have a relief with a building with a triangular gable supported by columns. The buildings are adorned with several types of architectural terracottas (antepagmenta, simas, and akroteria (felines and spirals). Judging from these architectural terracottas and the low pitch of the roofs (13° to 18°), the roofs must have been tiled. On two of the three reliefs a prothesis takes place within the building - on the third only a fragment of the building is preserved.

On cat. nos. 70-72 (Figs. A35, A65-A66) hanging festoons are seen, probably representing tents or pavilions. On two of the three reliefs a prothesis takes place inside the tent, on the third is a (funeral?) banquet. Thus these reliefs may be connected to the funeral, and the buildings and the tents are probably representations of the place in which the prothesis - and possibly the funeral banquet - took place (see further chapter 5). The remaining reliefs show dancing, mourning, banquets, processions, riders and warriors - some of which may also be connected to the funeral.

#### VOTIVE MODELS IN THE SHAPE OF BUILDINGS (*Diagram 5*)

Votive models are known from most of Italy<sup>125</sup> as well as from Greece.<sup>126</sup> Most votive models date to the 4th century B.C. and the Hellenistic period. Since so few Orientalizing and Archaic ones have been preserved, I have included the ones from the Etruscan "sphere" of Campania. These models are of great value regarding reconstructing the appearance of the early Etruscan buildings, since they depict the entire building. They are especially important in regard to doors and windows, but also roofs.

From the Orientalizing and Archaic periods in Central Italy 12 votive models are known (cat. nos. 73-84)(Figs. A67-A78). To this should be added the later one from Capua, which may represent an older building style (cat. no. 85)(Fig. A79). It should be noted that the chronology of these votive models is very uncertain, since most of them are without a known context.<sup>127</sup> Even in the case where we know the context (such as the votive deposit at the Mater Matuta sanctuary at Satricum) (cat. nos. 74-76)(Figs. A68-A70) the large span of time of the deposit can only date the models within one or two centuries. In most cases the date of the model rests on style as well as on the type of clay.

An intervening stage between the house urns (see above) and the votive models is perhaps seen in the model from Sala Consilina (cat. no. 73)(Fig. A67), even if this model originates from Campania.

#### **Provenance, findcontext, and origin**

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*stele villanoviana di Bologna*, *Archivi* 7, Breccia 1977, 55-56).

<sup>125</sup> For votive models from Central Italy and Campania see Staccioli 1968a (review by G. Mansuelli in *StEtr* 38, 1970, 411-413). For motive models from Southern Italy see P. Danner, 'Tonmodelle von Naiskoi aus Kalabrien', *RdA* 16, 1992, 36-48.

<sup>126</sup> T.G. Schattner, *Griechische Hausmodelle. Untersuchungen zur frühgriechischen Architektur*, *AM Beiheft* 15, 1990.

<sup>127</sup> See Staccioli 1968a, 74-77.

The votive models have been found in most of Central Italy. Two in Campania (cat. nos. 73 and 85)(*Figs. A67 and A79*); five in Latium (Satricum, Velletri, and Rome)(cat. nos. 74-76, 80 and 83)(*Figs. A68-A70, A74, A77*); two in Southern Etruria (Veii) (cat. nos. 79 and 82)(*Figs. A73 and A76*); three in Northern Etruria (Roselle and Chiusi) (cat. nos. 77-78 and 84)(*Figs. A71, A72, and A78*); and one is of unknown provenance (cat. no. 81)(*Fig. A75*). It should be noted that none have been found in Cerveteri, where several of the house urns were found.

The only votive model to have been found in a tomb is the one from Sala Consilina (cat. no. 73)(*Fig. A67*). I have chosen to place it among the votive models, since it was not used as an urn. Such models are also known from tombs of the 6th century from Basilicata (*Fig. 23*).<sup>128</sup> Six are found in sanctuaries: three from the same votive deposit in Satricum (cat. nos. 74-76)(*Figs. A68-A70*) and three from a sanctuary area (no exact provenance known) (two from Veii, Portonaccio and one from S. Omobono in Rome) (cat. no. 78, 81, and 82)(*Figs. A73, A76 and A77*). The findcontext of the last six urns is unknown.

Where the models were manufactured is uncertain, but most probably they are locally made.<sup>129</sup>

### **Material and technique**

All the votive models are made of clay and handmade.<sup>130</sup> Some models are combined from two parts, fired and then joined, while others are made in one piece.<sup>131</sup> Some architectural terracottas on the models may have been moulded such as the antefixes on the model from Veii (cat. no. 82)(*Fig. A77*).<sup>132</sup> Columns are made separately. Both architectural terracottas and columns must have been added before firing.<sup>133</sup> Only the model from Sala Consilina (cat. no. 73)(*Fig. A67*) preserve traces of colour, but some, if not all models, must originally have been painted, especially the architectural decoration.<sup>134</sup> Incisions were used for details such as separating pan tiles and lines on cornices. Metal parts such as *meniskoi* on the model from Veii (cat. no. 79)(*Fig. A73*) may also have been added. The only model of stone is the one from Chiusi (cat. no. 84)(*Fig. A78*).

What the holes such as the ones in the ridge on the model from Roselle (cat. no. 77)(*Fig. A71*) and in the gable on the model from Velletri (cat. no. 80)(*Fig. A74*) were used for is uncertain.

<sup>128</sup> Buranelli 1985, 73-75, figs. 41-42; Damgaard Andersen & Horsnæs forthcoming.

<sup>129</sup> Schattner has suggested that the Italian models were inspired by the Greek models, since he believes that they were later than the Greek models (T.G. Schattner, *Griechische Hausmodelle. Untersuchungen zur frühgriechischen Architektur*, *AM Beiheft* 15, 1990, 218). As we have seen above there is a clear continuity from the Early Iron Age hut urns to the later funerary and votive models, and there is no reason to believe that the Italian models were inspired by the Greek ones.

<sup>130</sup> For technique see further Staccioli 1968a, 77-80.

<sup>131</sup> Staccioli 1968a, 78-79.

<sup>132</sup> According to Staccioli 1968a, 77 - however, there are differences between the antefixes on the model.

<sup>133</sup> Staccioli 1968a, 79 suggests that some of the architectural terracottas have been added after firing - this seems highly unlikely.

<sup>134</sup> Staccioli 1968a, 77, 80.

### Architectural features

The size of the votive models varies: the height from 9.5 cm to 26.8 cm, the length from 11 to 21 cm, and the width from 7.5 to 17.5 cm. The two badly preserved models, the one of unknown provenance (cat. no. 81)(*Fig. A75*) and one from Veii (cat. no. 82)(*Fig. A77*) seem to have been the largest. The podium model from Chiusi (cat. no. 84)(*Fig. A78*), however, is considerably larger (68 x 40 cm). The smallest is one from Satricum (cat. no. 76)(*Fig. A70*) and in general the earliest models are the smallest. All votive models are considerably smaller than the house urns.

Most of the Archaic Etruscan votive models represent rectangular buildings (cat. nos. 73, 76, 79-85)(*Figs. A67, A70, and A73-A79*) or almost rectangular buildings (cat. nos. 74-75)(*Figs. A68-A69*). Of the models from Roselle (cat. nos. 77-78)(*Figs. A71-A72*) only the roof is preserved. Cat. no. 78 was probably a rectangular building, while the shape of cat. no. 77 is unknown. All models have only one room, except for the Velletri model (cat. no. 80)(*Fig. A74*), which has a broad porch at the front and two rooms at the rear. Cat. no. 79 (*Fig. A73*) from Veii, Portonaccio, is placed on a low projecting basis or podium. The model from Chiusi (cat. no. 84)(*Fig. A78*) does not represent a building but a rectangular platform on a podium. A flight of steps on the front leads up to the platform. It is uncertain if a building was placed on the platform.

Doors on the front are seen on three models (cat. nos. 73, 76, and 79)(*Figs. A67, A70, and A73*) while three models have an open front (cat. nos. 74, 75, and 80)(*Figs. A68, A69, and A74*). Windows are only seen on the model from Sala Consilina (cat. no. 73)(*Fig. A67*). It is not possible to determine if the remaining models had doors or windows.

Only one of the models without a known provenance had traces of columns (cat. no. 81)(*Fig. A75*). On the underside are two discs, which must be the remains of the upper part of two columns.

### The roofs

The roofs have been preserved on almost all the models, except for one of the Satricum models (cat. no. 77)(*Fig. A71*). Most roofs are two-faced roofs and most have ridges (a central ridge and ridges on the falls). The only roof that is not two-faced is the roof from Satricum (cat. no. 74)(*Fig. A68*), which is three-faced or hipped at the front end. The shape of this roof is unique, since the rear part of the roof is two faced or almost rounded,<sup>135</sup> while the front is almost flat and sloping forward. Between these two parts of the roof is a kind of flat raised gable-shaped ridge. The incisions on the roof have been interpreted as representing reeds. The appearance and its early date make it certain that this roof represents a thatched roof, even if the inclination of the roof is fairly low.

Two early models have simple smooth falls of the roofs: the one from Sala Consilina (cat. no. 73)(*Fig. A67*) and Roselle (cat. no. 77)(*Fig. A71*). The steep pitch of the roof of the model from Sala Consilina and its early date also identify this roof as a thatched roof. The oddly shaped roof from Roselle probably also represents a thatched roof.

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<sup>135</sup> For a parallel see however the stele from Tarquinia, cat. no. 57.

Whether these should be considered huts or houses is uncertain.

The inclination of the roof on the remaining models falls between 19° to 31°. <sup>136</sup> Several of these have ridges, and on some are indications of pan tiles (cat. nos. 78-83)(Figs. A72-A77). This suggests that the roofs represent tiled roofs and that the ridges should be interpreted as ridgepole tiles and cover tiles.

All the roofs seem to represent simple gables with no indication of recessed gables.

Only the Velletri model (cat. no. 80)(Fig. A74) shows evidence of the woodwork construction, since the ridge beam, the wall plates, and the end of purlins in between can be seen.

### Architectural decoration on the roofs

Of the three models with a thatched roof, architectural decoration (birds on the ridge) is only seen on the ridge of the model from Sala Consilina (cat. no. 73)(Fig. A67). These must represent birds cut out of the cross pieces of the roof, even if logs cannot be seen. This decoration probably shows an intervening stage between the animals on the Villanovan urns and the later architectural terracottas, <sup>137</sup> as did the house urns from the 7th century B.C. discussed above. Birds (and other animals) in a similar position are also seen on two models from Basilicata (Fig. 23). <sup>138</sup>

Architectural terracottas are not seen on votive models before the 6th century B.C. They consist of simple semi-circular antefixes (cat. no. 78)(Fig. A72), human head antefixes (cat. no. 81)(Fig. A75), satyr antefixes (cat. no. 82)(Fig. A77), cornices/friezes/simas (cat. nos. 79, 81, 82, and 85)(Figs. A73, A75, A76, and A79), plain, flat antepagmenta (cat. nos. 79-80)(Figs. A73-A74), and akroteria (cat. nos. 81-83)(Figs. A69, A76-A77).

To these votive models may be added several of uncertain date, <sup>139</sup> some of which may give further evidence as to earlier houses, especially the model from Capua (cat. no. 85)(Fig. A79). K.M. Philips

<sup>136</sup> Note, however, that the inclination is only known on half of the votive models.

<sup>137</sup> Edlund Gantz 1972, 193. The idea proposed by Kilian in *Archäologische Forschungen in Lukanien* 3, (*RM Ergänzungsheft* 15), 1970, 288, that there is a connection between the decoration on the Sala Consilina model and the Minoan models cannot be taken seriously.

Whether or not, as Kilian also suggests, there is a connection between the Sala Consilina model and models from Sardinia from the 7th century B.C. is uncertain (for the Sardinian models see G. Lilliu, *Sardegna Nuragica*, Verona 1966, 383-385, cat. no. 286, fig. 531; *Kunst und Kultur Sardiniens vom Neolithikum bis zum Ende der Nuraghenzeit*, Ausstellung Badisches Landesmuseum Karlsruhe, Karlsruher Schloss 18 April - 13 Juli 1980 and Berlin 31 Juli - 14 Sep. 1980, 412, cat. no. 215, (ill.); G. Ugas, 'Altare modellato su castelli nuragico di tipo trilobato con figura in rilievo dal Sinis di cabras (Oristano)', *Archeologia Sarda*, nov. 1980, 7-32, esp. 13, tav. 4,2).

<sup>138</sup> Buranelli 1985, 73-73, figs. 41-42; Damgaard Andersen & Horsnæs forthcoming.

<sup>139</sup> The following list is based on Staccioli 1968a: Veii, Isola Franese (Staccioli 1968a, 18, cat. no. 3, tav. V); Veii (Staccioli 1968a, 18-19, cat. no. 4, tav. VI,1); Veii, Isola Farnese (Staccioli 1968a, 19, cat. no. 5, tav. VI,2); Veii, Isola Franese (Staccioli 1968a, 19-20, cat. no. 6, tav. VII,1); Veii (Staccioli 1968a, 20, cat. no. 7, tav. VII,2); Veii, Portonaccio (Staccioli 1968a, 20, cat. no. 8, tav. VIII,1); Veii, Portonaccio (Staccioli 1968a, 21, cat. no. 9, tav. VIII,2); Veii, Portonaccio (Staccioli 1968a, 21, cat. no. 10, tav. IX,1); Veii, Portonaccio (Staccioli 1968a, 21-22, cat. no. 11, tav. IX,3); Veii, Portonaccio (Staccioli 1968a, 22, cat. no. 12, tav. IX,2); Velletri (Stimmata church) (Staccioli 1968a, 43, cat. no. 33) (this model is possibly the same as the one published by Fortunati 1989,

suggests that the head on this model represents a bronze mask, placed at the end of the ridgepole tile.<sup>140</sup> Such a mask would undoubtedly have an apotropaic purpose. The close likeness to the heads on the canopic urns from the Chiusine area may indicate that such masks may have been first used on houses and then - after the patron's death - placed on his urn, as has also been proposed by Philips and Colonna.<sup>141</sup> This theory is supported by the so-called "canopic" head antefixes from the South-East Building at Murlo,<sup>142</sup> which resemble the canopic bronze masks, and which may have been manufactured in moulds similar to the ones used for the heads of the canopic urns. It is perhaps even possible to imagine that such moulds could have been used for both antefixes and urn masks, or that masks themselves (such as the Dolciano mask) could have been used as moulds. Furthermore, it can be inferred from Pliny's remark (*HN* 35.152): *Butades ... primusque personas tegularum extremis imbricibus inposuit ...* that antefixes were regarded as masks in antiquity.

All this suggests that masks placed on both real buildings and on house models in the Archaic period and later reflect a much earlier use of masks, which can in fact be traced back to the Early Iron Age and to the use of masks on e.g. canopic urns. It is the survival of this tradition that seems to be the original reason for placing primitive heads on houses as part of the architectural decoration during the Late Orientalizing and Early Archaic periods.

Other late models with large human heads in the gable may be compared with this model from Capua, e.g. a model from Orvieto with a large female head at the gable,<sup>143</sup> and two models from Teano.<sup>144</sup> These models do not, however, use heads in an Early Archaic style, but show that the idea still lived on.

## VASE PAINTING, THRONE, AND INTAGLIO WITH REPRESENTATIONS OF BUILDINGS

### (Diagram 6)

Representations of buildings on vase painting are rare as opposed to buildings on Greek vases.<sup>145</sup> The few buildings on Etruscan vases seem to depict fights in front of the buildings of Troy and are thus of no relevance for Etruscan architecture.<sup>146</sup>

64, tav. LXXX, 3, but she does not refer to Staccioli 1968a); unknown provenance, possibly Northern Etruria (Staccioli 1968a, 66, cat. no. 60, tav. LXVII,2-3).

<sup>140</sup> Philips 1984; Philips 1985.

<sup>141</sup> Philips 1984; Colonna 1986, 424.

<sup>142</sup> See the appendix.

<sup>143</sup> Melis 1984, 367-375.

<sup>144</sup> Staccioli 1968a, 54-56, cat. nos. 47-48, tav. LIV-LVI,1.

<sup>145</sup> P. Oliver-Smith, *Architectural elements on Greek vases before 400 B.C.*, Univ. microfilms, Ann Arbor 1969 (1983).

<sup>146</sup> One is an Etruscan imitation of a Late Protocorinthian oinochoe, dated to c. 630 B.C. (Paris, Bibliothèque National, Cabinet des Médailles, inv. 179) (Martelli 1987, 279-280, cat. no. 62 (with further references)). The other is a black figured oinochoe, dated to 520-510 B.C. (Martelli 1987, 304-305, cat. no. 111; E. Macnamara, *The Etruscans*, London 1990, fig. 87).

The representation of the two buildings, probably huts, on the wooden throne from Verruchio is unparalleled in Central Italy (cat. no. 86)(*Fig. A80*). The buildings are rectangular with a half-timbering wall construction with vertical and horizontal beams, probably with *pisé* in between. The roof is two-faced and thatched. The interpretation of several architectural details of the buildings is difficult: the humans and animals on the roof probably represent figures cut out of the cross pieces, but real humans/animals cannot be excluded, the grates above the door (of unknown purpose - ventilation (?)), and the oblique walls (probably an early attempt to show perspective).

The scene on the intaglio (cat. no. 87)(*Fig. A81*) shows a relief of a type similar to the Chiusine ones (a building with a triangular gable with reclining feline akroteria on the roof and a *porta Dorica* in the front), but instead of a funeral theme it probably shows the preparation of the nuptial bed within the house at which the couple's arrival is expected.<sup>147</sup> Like the Chiusine buildings the low inclination and the felines on the roof indicate a tiled roof.

#### ROMAN REPRESENTATIONS OF HUTS

A few representations of supposed early Italic huts exists, mostly on coins and medallions. One example is a coin dated to the emperor Trebonianus Gallus (251-253), which on one side shows Aeneas in front of a hut.<sup>148</sup> Other examples are seen on medallions dated to the reign of Antoninus Pius.<sup>149</sup> One shows the town of Lavinium with Aeneas and his father, the sow, the town walls, and a circular building, which looks like something in between a hut (because of the steep roof) and a circular temple of the Vesta type. Another medallion shows Aeneas and Ascanius arriving on the coast of Latium with the sow in front of a hut. These representations of huts are all very schematic and basically show a nondescript circular building with a high-pitched curved roof and often an arched door. Evidence from literary sources such as Dion. Hal. (1.64.1) can be related to the scenes with Aeneas in Lavinium, since he describes the temple of the Penates in Lavinium as a hut.

Even if huts of this type existed in Roman times, very little information can be gained from these representations.

Huts are also seen on Roman sarcophagi,<sup>150</sup> mainly on Christian sarcophagi showing a fisherman's hut (the Jonah legend)<sup>151</sup> or pastoral scenes with shepherds and sheeps (the shepherd in front of a hut

<sup>147</sup> This was first suggested by E. Richardson, *The Etruscans. Their art and civilization*, Chicago 1964, 123-124.

<sup>148</sup> P. Aichholzer, *Darstellungen römischer Sagen*, Dissertationen der Universität Wien 160, Wien 1993, cat. no. 86, Abb. 80.

<sup>149</sup> *Enea nel Lazio* 1981, 157-158 (ill.); Bartoloni, Beijer & De Santis 1985, 181; Bartoloni *et al.* 1987, 138; P. Aichholzer, *Darstellungen römischer Sagen*, Dissertationen der Universität Wien 160, Wien 1993, cat. no. 100, Abb. 93, cat. no. 102, Abb. 96. According to Aichholzer (his cat. no. 100) it is dated to the reign of Hadrianus, while everyone else dates it to the reign of Antoninus Pius.

<sup>150</sup> A. Boëthius, *The golden house of Nero*, Ann Arbor 1960, 15.

<sup>151</sup> Such as Ny Carlsberg Glyptotek I.N. 857 (F. Poulsen, *Catalogue of ancient sculpture in the Ny Carlsberg Glyptotek*, Copenhagen 1951, 590-591, cat. no. 832; J. Stubbe Østergaard, *Imperial Rome. Ny Carlsberg Glyptotek. Catalogue*, Copenhagen 1996, 156-157, cat. no. 67).

(the upper part of which is bended) or a sheep entering a hut).<sup>152</sup> The huts are rendered as simple huts of straw - on the pastoral scenes it is difficult to distinguish between huts and bended sheaves.

Besides these "foreign" huts are depicted, e.g. the columns of Trajan and Marcus Aurelius.

### "MODERN" HUTS

The so-called modern huts are the huts on the Roman campagna and in Southern Etruria, used until recently by local farmers and shepherds (*Fig. 24-25*).<sup>153</sup> These huts are mostly circular in ground-plan with a conical thatched roof. On the apex of the roof is sometimes a small horizontal ridge. The conical roofs are normally very steep with an inclination of more than 45°. <sup>154</sup> The oval and rectangular huts had either a hipped roof with sloped thatched ends instead of gables and a concave ridge,<sup>155</sup> or a two-faced roof. The inclination of these roofs varies between 30° and 50°. All the roofs had large overhangs to protect the walls. All huts are constructed with walls of 1.50 to 1.60 m high to get maximum space. The size depended on the function of the hut. The small circular huts were used for shorter stays and the larger circular huts for the animals.

As an example can be mentioned a hut near Veii (*Fig. 26*).<sup>156</sup> This hut is relatively small (5 m in diameter), but the same construction could be used in huts up to 10 m diameter.

The hut was protected against the northern wind by a thick brushwood fence, one end of which abutted the hut. The hut was constructed with a ring of 17 wall posts, 1.60 m high, which were set in a circle giving the hut a diameter of 5 m. From these posts rose rafters, only 5-6 cm thick, which met at the apex 5.25 m above the floor. The rafters were lashed to the top of the wall posts with wire. To provide the necessary stability, a "ring-beam" was made of five to six withies interwoven in a sort of basket-work carried round the hut at eaves-level, and woven round the junction of wall posts and rafters. The roof was further supported by two horizontal ties crossing 3.25 m above the floor, and pinned together in the centre with a large wooden peg. Bands of one or two withies encircled the rafters every 40 cm up to the roof to support the thatch. The walls were attached to the posts on the outer side with wire. They consisted of straw and reed leaves between two faces of vertical reeds, and the whole was secured with horizontal withies. A length of timber was laid across the entrance to form a threshold. The door opened below the "ring-beam". The roof was thatched with thick bundles of broom, supported on the rafters and horizontal withies, and is finished

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<sup>152</sup> As examples can be mentioned one in Palazzo Corsini in Rome (G. De Luca, *I monumenti antichi di palazzo Corsini in Roma*, Roma 1976, 115-117, tav. XCVII), one in the Vatican (W. Amelung, *Die Skulpturen des Vatikanischen Museums*, Berlin 1903, 392-393, cat. no. 127, Taf. 42), one at Museo Nazionale in Rome (S. Allegra Dayan in A. Giuliano (ed.), *Museo Nazionale Romano. Le sculture I.2*, Rome 1981, 172-174).

For this type of sarcophagi see R. Paribeni, 'Scoperte nel suburbio in seguito a lavori agricoli', *NSc* 1926, 297-299; B.M. Feletti Maj, 'Considerazione sull'arte del periodo fra Gallieno e la Tetrarchia', *Rivista di archeologia cristiana* 52, 1976, 223-256.

<sup>153</sup> *Il Lazio di Thomas Ashby 1891-1930*, vol. 1, Rome 1994, esp. 196-199; Maffei, esp. 111-112, figs. 132, 135.

<sup>154</sup> Maffei, 112. For examples see e.g. Bartoloni, Beijer, De Santis 1985, pl. 9.1.

<sup>155</sup> *A schiena*, that is shaped like a donkey's back, like on the hut urns.

<sup>156</sup> J. Close Brooks & S. Gibson, 'A round hut near Rome', *PPS* 32, 1966, 349-352; Bartoloni, Beijer & de Santis 1985, 181.



at the apex with a straw cone and a wooden cross. The inclination of the roof was 55°. There was no vent-hole.

Around the hut was a ditch, the earth from which was used to form a slight bank against the outside wall of the hut. A second ditch protected the fence.

The interior arrangements of the hut required a central post, and a partial inner rings of posts - none of these reached the roof, nor supported it. The hearth was dug in the ground, slightly off centre, and lined with tufa blocks.

## TOMBS IN THE SHAPE OF BUILDINGS

Many tombs from the Archaic period are shaped like houses/buildings. Such chamber tombs date back to the early 7th century B.C. In the south (e.g. Cerveteri, Tarquinia, S. Giuliano, Norchia, Castel d'Asso) the tombs are cut out of the rock,<sup>157</sup> while they in the north are built of stone slabs (e.g. Populonia).

The tombs may represent either interior design (such as the tombs at Cerveteri), exterior design (such as the tombs from Tuscania, Blera, or S. Giuliano), or both.

### **Tombs representing the exterior of buildings**<sup>158</sup>

The tombs can be divided into three types:<sup>159</sup>

#### 1. Cube-tombs (*Würfelgräber/tombe a dado*)(Fig. 27).<sup>160</sup>

The type is defined as a chamber tomb, which externally is shaped like a cube. Some of the tombs are only "semi-cubic" (*semi-dado*), i.e. only the front of the tombs is cubic - the rear part of the tomb is within the rock. Some tombs are built of stone blocks, while the bases of others are cut out of the rock with the upper part in stone blocks. At the top and along the lower edge is a moulding, cornice or *torus*. On top of the cube is a platform, reached by a staircase, which probably served as a place for religious ceremonies. The rectangular burial chamber within the cube is reached through a short corridor, which functions as a vestibule. The ceiling is usually two-faced with a pronounced ridge beam. The doors are of *porta Dorica* type. Beds and benches are often cut out of the tufa.

Cube tombs were developed in the first half of the 6th century B.C. in the rock-cut cemeteries and in Cerveteri (for these see below),<sup>161</sup> and by the mid-6th century B.C. the type was fully developed.

The cube-tombs fall in two groups: an early group (6th century B.C.) and a late group (late 4th to the first half of the 2nd centuries B.C.).<sup>162</sup> Most of the tombs date to the late group. The Archaic tombs

<sup>157</sup> For the technique of these tombs see J.P. Oleson, 'Technical aspects of Etruscan rock-cut tomb architecture', *RM* 85, 1978, 283-314.

<sup>158</sup> For these tombs in general see Rosi 1925; Demus-Quatember 1958, 34-40; G. Colonna, 'La cultura dell'Etruria Meridionale interna con particolare riguardo alle necropoli rupestre', *Aspetti e problema dell'Etruria interna*, Orvieto 1972, *Atti del convegno nazionale di studi etruschi e italici* 8, Florence 1974, 253-263; Colonna di Paola 1978; S. Steingräber, 'Felsgräberarchitektur', *AntW* 16, Heft 2, 19-40; Romanelli 1986, esp. 24-57.

<sup>159</sup> Colonna di Paola 1978, 5-8. A different grouping is suggested by Rosi 1925 (cube tombs; tumuli; gabled tombs; pediment tombs - in these groups are included the later tombs).

<sup>160</sup> For the origin of the cube tombs see Romanelli 1986, 39-40; Brocato 1996. For the later cube-tombs see J.P. Oleson, *The sources of innovation in later Etruscan tomb design (ca. 350-100 B.C.)*, *Archeologica* 27, Rome 1982, esp. 42-47.

are located primarily in the south around Blera,<sup>163</sup> but a few have been found in Tuscania.<sup>164</sup> The later tombs are located further north (around Norchia and Castel d'Asso).

There is a chronological development within the Archaic type: type A is characterized by its mouldings and open doors (such as e.g. S. Giuliano, T. delle Porte Sporgenti and T. le "Palazzine"); type B is characterized by its mouldings and its half-closed doors (ex.: S. Giuliano, T. della Regina).<sup>165</sup> Chronologically, this development takes place from the mid-6th century B.C. till the end of the 5th century B.C. In the 5th century B.C. the *porta Dorica* has thus developed into half-doors, i.e. only the lower half of the door was open.

2. House tombs with a two-faced roof (*tombe a tetto displuviato ("a casa")*).

Only few house tombs have been found.<sup>166</sup> Like the cube-tombs they are rectangular and often have mouldings of a similar type at the top and the bottom. The difference between the two is that instead of a flat roof or platform, the house tombs have a two-faced roof. The entire construction with the roof and door thus closely resembles a house.

As examples can be mentioned two tombs in Tuscania.

Tuscania, Necropoli della Peschiera, 1967 (Figs. 28-30).<sup>167</sup>

The tomb consists of an isolated tufa cube on a podium with two steps, cut out of the rock with a kind of enclosure around.<sup>168</sup> The entrance (a simple rectangular door) is on the long front side. The roof is two-faced and the inclination is 9°-12°. On the two short sides are small plain gables. On the southern side are (in relief) the principal rafters and the tie beam (?) and a central king-post, two short vertical supports at either end, and in between another two vertical supports. The gable on the northern side is slightly different, since the king-post is trapezoidal in shape and the tie beam is not indicated. Below the roof is a moulding on all four sides.

The tomb is dated to the second quarter or the mid-6th century B.C.<sup>169</sup>

Tuscania, Pian di Mola (sector A), 1984 (Figs. 31-37).<sup>170</sup>

<sup>161</sup> Colonna di Paola 1978, 15.

<sup>162</sup> G. Colonna, 'La cultura dell'Etruria Meridionale interna con particolare riguardo alle necropoli rupestre', *Aspetti e problema dell'Etruria interna*, Orvieto 1972, *Atti del convegno nazionale di studi etruschi e italici* 8, Florence 1974, 254.

<sup>163</sup> For the tombs in Blera in general see H. Kock, E. von Mercklin & C. Weickert, 'Bieda', *RM* 30, 1915, 161-303; S. Quilici Gigli, *Blera - topografia antica della città e della territorio*, *Deutsches Archäologisches Institut Rom. Sonderschriften* 3, Mainz 1976.

<sup>164</sup> For Tuscania in general see S. Quilici Gigli, *Tuscania, Forma Italiae* 7,2, Rome 1970.

<sup>165</sup> In the Hellenistic period the doors are replaced by false doors.

<sup>166</sup> S. Steingräber 'Felsgräberarchitektur', *AntW* 16, Heft 2, 19-40, esp. 26. For house tombs see also J.P. Oleson, *The sources of innovation in later Etruscan tomb design (ca. 350-100 B.C.)*, *Archeologica* 27, Rome 1982, 47.

<sup>167</sup> Colonna 1967, 90-92, figs. 7-12; S. Quilici Gigli, *Tuscania, Forma Italiae* 7,2, Rome 1970, 110-111, figs. 159-162; E. Colonna di Paola, 'Osservazioni sulle tombe a dado con portico di Norchia', *Aspetti e problemi dell'Etruria interna*, *Atti del VIII convegno nazionale di studi etruschi e italici*, Orvieto 1972, Florence 1974, 267, tav. LIII; Colonna di Paola 1978, 6, 61, figs. 105-106; M. Torelli in *Casa e palazzi d'Etruria* 1986, 26-27, fig. 7; Sgubini Moretti in *Viterbo* 1986, 137, figs. 2-3; Romanelli 1986, 48, fig. 29; A.M. Sgubini Moretti, 'Tomba a casa nella necropoli di Pian di Mola a Tuscania', *Secondo congresso internazionale etrusco*, Firenze 1985, suppl. di *StEtr*, Rome 1989, 321; Naso 1996, 333, fig. 241.

<sup>168</sup> Measurements of the cube: L. 9.40 m; W. 5 m.

<sup>169</sup> Colonna 1967, 91-92.

The tomb is rectangular and oriented E-W and was partly cut out of the tufa. The tomb consists of a central chamber and two side chambers, all irregular.<sup>171</sup> At the front is a porch supported by four columns (Tuscan bases are preserved *in situ*). At each end of the porch is an *ante*, composed of rectangular *nenfro* blocks with a profiled base in the Ionic style. On the long front side are the three entrance doors, all of the *porta Dorica*-type. The central door was originally closed by a stone slab and the two side-doors are false. On the doors are four panels. On the left side is a staircase, leading to the flat roof of the porch (possibly used for burial rites). The two short sides are not exactly alike: the gable of the northern side is plain (though with a *torus* at the lower end), while the southern gable has a king-post and a tie beam, both in relief. At each end of the gable are the end of the wall plates. The ceiling of the central chamber is flat, while the ceilings of the two side-chambers are two-faced. The roof is two-faced, but the ridge is off centre (the inclination of the rear fall is 7°, while the front fall is 20°. The eaves of the roof are decorated with a *torus*. A number of plastic *nenfro* roof ornaments were found.<sup>172</sup> Among these are two discs akroteria (the disc above the southern end has on top of the "ridgepole tile" a cylindrical finial, probably meant as the basis for an ornament such as e.g. a palmette),<sup>173</sup> and a number of akroteria placed along the ridge (five bases have been preserved here), consisting of a lion, two sphinxes, and a fragment with paws (either a sphinx or a feline)). On the ridge was also a series of cippi, both of the "feminine" house-type and of the "male" *omphalos*-type. The front of the porch was probably decorated with felines on a *torus* (one fragment was found).<sup>174</sup> Both the roof on the porch and the roof on the burial chambers are covered with *nenfro* "tiles". In the chamber were a number of benches.

The tomb is dated to the second quarter of the 6th century B.C.

Other tombs of the house type have been found in Tuscania, Pian di Mola, sector A (tomb 2 and 3) and B.<sup>175</sup> Another example is known from Blera, Pian del Vescolo (*Fig. 38*),<sup>176</sup> dated to the second half of the 6th century B.C. From the 5th century B.C. tombs of this type are also known (*Fig. 39*).

A specific type of house tombs of the 6th century B.C., the so-called *aedicula* tombs, is known from Populonia.<sup>177</sup> The earliest of the tombs can be dated to the second quarter of the 6th century B.C.

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<sup>170</sup> Sgubini Moretti in *Viterbo* 1986, 138; Sgubini Moretti 1989; *Cultura e arte degli etruschi. Progressi della ricerca degli ultimi decenni nell'Etruria meridionale*, exhibition catalogue (in Russian), Moscow 1989, 56-57; Sgubini Moretti 1991a, 23-24, figs. 1-12; Sgubini Moretti 1991b, 18-21, figs. 15-23; Naso 1996, 328, 333, figs. 242-244.

<sup>171</sup> Measurements: L. of front 9.4 m; W. of the short southern side 8.5 m; W. of short northern side 8.45 m; max. pres. H. of the monument, 4.65 m.

<sup>172</sup> For these see Sgubini Moretti in *Viterbo* 1986, 141-143, schede 1-2 and 4-6, figs. 15-18 and 20-22.

<sup>173</sup> Since neither the two gables nor the two discs are alike, the reconstruction posed some problems. For this see Sgubini Moretti in *Viterbo* 1986, 140.

<sup>174</sup> For this see Sgubini Moretti in *Viterbo* 1986, 141-142, schede 3, fig. 19; Sgubini Moretti 1991a, 24, fig. 10.

<sup>175</sup> Sgubini Moretti 1991a, 24-38, fig. 13, 19-23; Sgubini Moretti 1991b, 18, figs. 13-14.

<sup>176</sup> H. Kock, E. von Mercklin & C. Weickert, 'Bieda', *RM* 30, 1915, 234-238, no. 47, Abb. 31-35, tav. II; Demus-Quatember 1958, 46-47, fig. 28; Colonna 1967, 92; Colonna di Paola 1978, 8-10, 30, fig. 47; P. Giannini, *Centri etruschi e romani dell'Etruria meridionale*, Grotta di Castro without year, 175-176; L. Ricciardi, 'Interventi della Soprintendenza Archeologica per l'Etruria Meridionale nel territorio del Comune di Blera', *La Torretta* 2:2-3, 1985, 7-8, figs. 11-14; Sgubini Moretti in *Viterbo* 1986, 137; Romanelli 1986, 42, fig. 23, tav. 31; L. Ricciardi, 'Archeologia e topografia antica di Blera. Storia degli studi e punto della situazione', *La Torretta* 5:1-3, 1988, esp. 51, figs. 8-10.

<sup>177</sup> For these in general see Fedeli 1983, 121-125, figs. 63-64; Romualdi 1983, 31-33; Colonna 1986, 234; Fedeli, Galiberti & Romualdi 1993, 102-105.

and some continued to be used in the second half of the 5th century B.C. A few were reused in the Hellenistic period. Today the remains of seven of these tombs are visible. *Aedicula* tombs are rectangular with walls of rectangular stone blocks in a pseudo-isodomic system. The foundations may be either a simple line of projecting blocks, or a high profiled basis. The orientation of the tombs differs, but the entrance was always placed on one of the short sides. There is only one room, which was originally subdivided in *loculi*, placed on either side of a central aisle. The roof was two-faced and made of stone slabs. At least some of the roofs had stone akroteria. As an example can be mentioned:<sup>178</sup>

Populonia, T. del Bronzetto di Offerente (T. 58), S. Cerbone cemetery, 1957 (*Figs. 40-42*).<sup>179</sup>

The tomb consists of a small, rectangular building, E-W oriented. The entrance is a simple rectangular door opening on the front short side. In the gable is a triangular hole, covered by a stone slab. The roof is two-faced and covered with stone slabs.<sup>180</sup> The inclination of the roof is 18°-20°. On the roof were stone akroteria.<sup>181</sup> A hippocampus was placed at the top of the roof, a large volute akroterion covered the triangular opening of the roof, and two smaller volute akroteria were placed at the corners of the gable. Between the walls and the roof are two mouldings.

The tomb is dated to the third quarter of the 6th century B.C.<sup>182</sup> Near the tomb architectural terracottas (Acheloos and female head antefixes) were found (for a discussion of these see the appendix).

In Populonia (Podere Casone) another type of house tombs are known, the so-called *tombe a cassone* (*Fig. 43*), used from the second quarter of the 6th century till the 3rd century B.C.<sup>183</sup> The tombs are rectangular *fossa* tombs made of large stone slabs, covered by other slabs in the shape of a two-faced roof. The inclinations of these roofs are usually higher than those of the *aedicula* tombs, up to 40°. The tombs may as well be considered sarcophagi as tomb buildings. A few of these roofs have a raised ridge beam.<sup>184</sup> The high-pitched "roof" was probably used to make more room in the tomb.

In Bologna a house tomb type - somewhere in between an *aedicula* tomb and a *tomba a cassone* - is known (*Fig. 44*).<sup>185</sup> It consists of a tomb built up of stone slabs with a two-faced roof, also of stone slabs. There is no entrance. The tomb probably dates to the Archaic period.<sup>186</sup>

<sup>178</sup> Tombs of this type may also have been used elsewhere. A plastic head of a horse, now lost, is reported to have been found in the vicinity of Vetulonia in 1896 (Bruni 1989, 272).

<sup>179</sup> A. De Agostino, 'Populonia (Livorno). Scoperte archeologiche nella necropoli negli anni 1957-1960', *NSc* 1961, 63-7; A. De Agostino, *Populonia. La zona archeologica e il museo*, Rome 1963, 24-26; A. De Agostino, *Populonia. La città e la necropoli*, Rome 1965, 26-27; Prayon 1975, 58, 161, Taf. 69; Martelli 1979, 36-37, tav. V; X,2-5; M. Martelli in *Gli etruschi in Maremma* 1981, 165, 282 n. 44, fig. 130; Fedeli 1983, 38, fig. 26, 123, fig. 63, 236-239, figs. 144-146; Romualdi 1983, 31-33; Ceconi & Melani 1983, 89-90; Bruni 1989; Fedeli, Galiberti & Romualdi 1993, 102, figs. 77-79.

<sup>180</sup> For measurements and a detailed description of the tomb see Bruni 1989, 283-284.

<sup>181</sup> For a detailed description of these akroteria see Bruni 1989, 268-273, figs. 1-2, Taf. 50-52.

<sup>182</sup> For the chronology and the grave goods see A. De Agostino, 'Populonia (Livorno). Scoperte archeologiche nella necropoli negli anni 1957-1960', *NSc* 1961, 66-71; Bruni 1989, 274.

<sup>183</sup> M. Martelli in *Gli etruschi in Maremma* 1981, 165, figs. 124, 137; Fedeli 1983, 227-248; Romualdi 1983, 29-30 (with further references); Bruni 1989, esp. 280-281; Fedeli, Galiberti & Romualdi 1993, 105-106, figs. 80-83.

<sup>184</sup> See e.g. Fedeli 1983, 236, cat. no. 113, fig. 143 (dated to the second half of the 6th century B.C.), 244, cat. no. 128, figs. 162-163.

<sup>185</sup> H. 2.5; L. 3.83; W. 2.4. The inclination of the roof is unknown (E. Brizio, 'Bologna - Sepolcri etruschi scoperti nel giradino Margherita', *NSc* 1889, 180-182 (ill.); G. Gualandi, 'Problemi urbanistici e cronologici di Felsina alle luce degli

### 3. Tombs with a loggia above (*tombe con loggiato superiore/tombe a portico*).

In the Archaic period (late 6th century B.C.)<sup>187</sup> this type is only known in S. Giuliano, Valle del Caiolo (Fig. 45).<sup>188</sup> The type is characterized by being a facade-tomb with the burial chamber in the same level as the street. The upper part of the tomb is open at the front and has a central column of the Tuscan type, thus creating a *loggia*. Both tomb and *loggia* are cut out of the rock. A staircase leads to the *loggia*, and this probably was intended for burial rites just like the platforms above the cube-tombs. This type of tomb should probably be considered a local tradition.

### Tombs representing the interior of buildings

The majority of the Archaic tombs represent the interior of buildings and most are found in Cerveteri (Figs. 46-47). Based on these, the tombs can be divided into several groups, following the types established by Prayon (Figs. 46-47) - for absolute chronology see below.<sup>189</sup> This division is based on the ground-plan as well as the architectural elements:<sup>190</sup>

**Type B** (the so-called *Bogentürtypus*):<sup>191</sup> most of these tombs are monumental and placed within monumental tumuli, a few, however, are smaller. The many architectural elements and the ground-plan make them a single group. All tombs are cut out of the tufa. The Caeretan tombs are oriented towards W and WNW, while the orientation of the tombs in the other cemeteries is not uniform.

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scavi dei Giardini Margherita e della Facoltà di Ingegneria (ex Villa Cassarini', *Atti e Memoria della Deputazione di Storia Patria per le Province di Romagna*, n.s. 20, 1967, n. 67, p. 60, n. 69, fig. 5; Prayon 1975, 58 n. 306; G. Sassatelli, 'Topografia e "sistemazione monumentale" della necropoli felsinee', in *La formazione della città preromana in Emilia Romagna*, Atti del Convegno di studi Bologna-Marzabotto 7-8 dicembre 1985, Imola 1988, 229-231, fig. 15).

<sup>186</sup> None of the few finds found in the tomb has been illustrated, but the mention of a black-figured vase suggest a date in the Archaic period.

<sup>187</sup> Gargana 1931, 33, originally dated all tombs of this type to the 4th century B.C., but this dating has now been proven wrong (Colonna di Paola 1978, 8).

<sup>188</sup> Prayon 1975, Taf. 75,2; Colonna di Paola 1978, 8, 26, figs. 8, 35; Romanelli 1986, 44, fig. 27.

<sup>189</sup> Prayon 1975. Since this monograph several new tombs have been excavated/published (R.E. Lington, *Lo scavo nella zona Laghetto della necropoli della Banditaccia a Cerveteri*, *Rassegna di Studi del Civico Museo Archeologico e del Gabinetto Numismatico di Milano*, *Notizie dal Chiostro del Monastro Maggiore* 25-26, 1980; *Gli etruschi e Cerveteri. Nuove acquisizioni delle Civiche Raccolte Archeologiche. La prospezione archeologica nell'attività della Fondazione Lerici*, Mostra Milano, Palazzo Reale, Settembre 1980 - Gennaio 1981, Milano 1980; B. Bosio & A. Pugnetti (eds.), *Gli etruschi di Cerveteri. La necropoli di Monte Abatone tombe 32-45-76-77-79-81-83-89-90-94-102*, Mostra Milano, Museo Archeologico, Mantova 1986). For tombs outside Cerveteri see e.g. the tombs from Tolfa (F. Bulgarelli, D. Maestri & V. Petrizzi, *Tolfa etrusca e la necropoli di Pian Conserva* (GAR), Rome 1977; A. Naso in Maffei & Nastasi 1990, 83-92), or the tombs from Castro (P. Tamburini, 'La cività di Grotte di Castro', *Annali della fondazione per il museo "Claudio Faina" 2*, 1985, 182-206).

Naso (1996, 303-340) has suggested a different typology based on the ground-plan of the tombs (though not a typology in a chronological sense), but since his typology is based on the tombs with painted details, I have chosen to follow Prayon's typology.

<sup>190</sup> In the earliest type, **Type A** (the so-called *Kragebautypus*) the tombs are simple chamber tombs with a false vault and do not imitate buildings (Prayon 1975, esp. 15-17).

<sup>191</sup> Prayon 1975, esp. 17-20.

This group is the first to imitate the interior of buildings. The development from partial chamber tombs with a false corbel to pure chamber tombs in the shape of houses seems to have taken place simultaneously in the Etruscan cemeteries.

The central chamber is placed at the end of the dromos and is wider than the dromos. In some of the Caeretan tombs there is a circular anteroom with a flat roof between the dromos and the main chamber. It is possible that the circular shape is inspired from the ground-plan of the huts.<sup>192</sup> The roof of the main chamber of the largest tombs is supported by pillars. Dromos doors all have the arch-shaped endings, from which the type was named. The inner doors are all rectangular and slightly wider at the bottom. None of the type B tombs have any windows. Within the main chamber is a continuous bench or one or two "deathbeds" cut out of the tufa. The group is divided into two types: Type B<sub>1</sub>:<sup>193</sup> The ground-plan of the central chamber is almost rectangular. The roof/ceiling of the central chamber in Cerveteri is either corbelled or a high-pitched two-faced roof with a narrow ridge beam. These must imitate huts with a thatched roof. One of the earliest in Cerveteri is the T. della Capanna.

Cerveteri, T. 11-della Capanna (*Figs. 48-49*).<sup>194</sup>

The tomb is shaped like an elongated hut with a long dromos with two large semi-circular *loculi* leading to the central room, which is large and rectangular/trapezoidal. Behind is a small rear room with rounded edges. The central room has low walls (1.10 m). The dromos door is irregular/trapezoidal, while the door between the two chambers is arched.

The roof is two-faced<sup>195</sup> and high-pitched with an inclination of 43°-48°. At the centre of the roof is a rounded ridge beam (both in the central chamber and in the rear chamber). The roof of the rear room is similar to the central room, except that there is no division between the walls and the roof.

In the front chamber a bench is cut out of the rock along the walls, and in the rear chamber is a support for a bench/madras, composed of a layer of pebbles. In both rooms were found traces of wood, probably the remains of wooden klinai or funeral beds.

The tombs of the other cemeteries mostly have corbelled roofs/ceilings, except for the flat roof/ceiling in Veii (Tumulo di Vaccareccia). In the T. delle Anatre at Veii can be seen the earliest example of a hipped roof in Etruscan tombs (*Fig. 50*).<sup>196</sup> In this case the roof has acute angles.

Examples: Cerveteri (T. Mengarelli 11; T. del Colonello 1; T. 2; T. 11-della Capanna; T. 307; T. 308; T. 403; T. 404); Blera (T. 1:E22); S. Giovenale (T. 1 di Porzarargo; T. di Poggio S. Simone); Veii (T. delle Anatre; Tumulo di Vaccareccia; T. V di Riserva del Bagno<sup>197</sup>).

<sup>192</sup> Naso 1996, 303.

<sup>193</sup> Note that outside Cerveteri the grave goods date this type from the mid-7th century till within the 6th century B.C. (Prayon 1975, 61).

<sup>194</sup> Ricci 1955, 346-360; A. Boëthius, 'La tomba con tetto stramineo a Cerveteri', *Palladio* 15, 1965, 3-6; A. Boëthius, 'The tomb of the thatched roof at Cerveteri', *OpRom* 6, 1968, 9-19; Prayon 1975, esp. 35, 38, 93, 170, 173, Taf. 6, 28, 85,6.

<sup>195</sup> That this represents a two-faced roof is also supported by Colonna 1981, 55; Naso 1996, 359. Prayon 1975, 170-180 considers it a hipped roof.

<sup>196</sup> A. de Agostino, 'La Tomba delle Anatre a Veio', *ArchCl* 15, 1963, 219-222, esp. tav. LXXXIV; Prayon 1975, 58-61, 168; Steingraber 1985, 382, cat. no. 175, Abb. 181-182; M.A. Rizzo in Rizzo 1989, 103-107, figs.

Type B<sub>2</sub>: this group imitates more substantial buildings. The ground-plan consists of a rectangular central chamber. In a few cases there is also a rear chamber and/or a circular anteroom. The dromos often has dromos cells. The ceiling of the central chamber is fairly low-pitched; the small ridge beam used in type B<sub>1</sub> has now developed into a wider, flattened beam, and imitations of rafters are depicted. In this type - as in the later types - each room has its own separate roof, i.e. an overall roof did not cover the tomb. The hipped roof now occurs in Cerveteri (T. della Nave 1 (*Fig. 51*); T. Campana 1; T. degli Animali dipinti 1 (*Fig. 52*); del Tumulo XII; T. 1 del Tumulo VII; T. del Tumulo VIII (see below); T. della Tegola dipinta (Tomba 1 del Tumulo III); T. dei Leoni Dipinti (*Fig. 53*); and T. Sorbo I.<sup>198</sup> In the T. della Nave 1 can be seen the earliest example of a hipped roof in Cerveteri (in the left dromos room).<sup>199</sup> The roof is constructed with a fairly narrow ridge beam, ending in a disc. On each fall are thin, rather crude, rafters, sloping from the ridge and radiating from the disc. In T. d. Animali Dipinti the roof is more advanced. At one end the roof is hipped with rafters radiating from a disc and purlins, running the circumference. At the other end the roof is two-faced. It is supported by a triangular gable with a tie beam, a king-post, another two vertical supports near the end of the gable, and a horizontal beam across the gable.<sup>200</sup> This must depict a truss construction, even if the principal rafters are not seen.<sup>201</sup> Sometimes this construction, always supported by pillars, or in a few cases lesene (never by the walls), divides the room into two or three parts.

In general most of the other hipped roofs/ceilings in tombs are seen in the back part of the rear chambers, while the roof of the front part of the chamber is usually an ordinary two-faced roof.

Even if the inclination is fairly low, these roofs probably imitate thatched roofs. To cut out a roof with the "correct" inclination and a correct height of the walls would have increased the work considerably. In the case of the T. Capanna the problem was solved by making the walls very short. In the tombs with a hipped roof the problem may be solved by making the inclination lower. The roofs of the anterooms are almost flat, and they may be interpreted as porches with a low-pitched shed roof.

In this group can be seen numerous types of furniture, cut out of the tufa, such as benches, beds, chairs, and tables. As an example can be mentioned T. del Tumulo VIII.

Cerveteri, T. del Tumulo VIII (*Fig. 54*).<sup>202</sup>

From the dromos (with a dromos room to the left) was access to the rectangular main room. It is supported by four pillars, thus dividing the room into three sections. All doors are arched.

The roof of the central chamber is also divided into three: the rear part is hipped with a ridge beam ending in a disc and rectangular coffers imitating wooden rafters and purlins. The roof of the central part is two-faced with a ridge beam and the same type of coffers, while the

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41-42, tav. I.

<sup>197</sup> F. Buranelli, 'Un'iscrizione arcaica della Tomba V di Riserva del Bagno a Veio', *StEtr* 50, 1982, 91-102.

<sup>198</sup> Naso 1996, 29, cat. no. 1.2.1.1, figs. 6, 23.

<sup>199</sup> Prayon 1975, 45, Taf. 29,1, 32, 33,2; Colonna 1986, fig. 274.

<sup>200</sup> A similar support system is e.g. seen in T. Mengarelli (Colonna 1986, fig. 273).

<sup>201</sup> For a discussion of this see Naso 1997, 353-356.

<sup>202</sup> M. Moretti, 'Caere 4 - Necropoli della Banditaccia - Zona B 'della Tegola dipinta', *MonAnt* 42, 1955, 1108-1120, figs. 14-16, Tav. 1; Prayon 1975, 94, Abb. 20, Taf. 85,15.

front part of the roof is concave and without decoration. The roof of the dromos-chamber is concave.

In the left dromos room are two funeral benches, in the main chamber benches on all sides as well as two klinai and two sarcophagi.

Examples: Cerveteri (T. degli Animali dipinti 1;<sup>203</sup> T. Campana 1;<sup>204</sup> T. delle Cinque Sedie;<sup>205</sup> T. dei Leoni dipinti;<sup>206</sup> T. Maroi 1;<sup>207</sup> T. Mengarelli;<sup>208</sup> T. della Nave 1;<sup>209</sup> T. della Tegola dipinta (T. 1 del Tumulo III); T. 10-dei Dolii e degli Alari; T. 104; T. 134; T. 227; T. 304; T. del Tumulo V; T. del Tumulo VI; T. del Tumulo VII; T. del Tumulo VIII; T. del Tumulo IX; T. del Tumulo X; T. del Tumulo XI; T. del Tumulo XII); Ceri (T. del Sarcophago orientalizzante;<sup>210</sup> Veii (T. Campana);<sup>211</sup> S. Giuliano (T. Cima); Vulci (T. del Sole e della Luna;<sup>212</sup> T. A-dei Soffitti Intagliati; Tumulo di Cuccumella<sup>213</sup>).

The other tombs are very similar to the Caeretan tombs, except that most ceilings are flat (few have a coffered ceiling, while few are hipped).<sup>214</sup> An example can be seen in Vulci, Necropoli dell'Osteria, T. A/T. dei Soffitti Intagliati (*Fig. 55*), dated to the mid-7th century B.C.<sup>215</sup> The roof is constructed with a ridge beam at each end terminating in a disc, and with rafters radiating from the discs as well as from the ridge. In general the painted decoration is more important than the architectural elements in the tombs outside Cerveteri. As an example of these tombs can be mentioned T. Cima at S. Giuliano.

S. Giuliano, T. Cima (*Figs. 56-61*).<sup>216</sup>

The large cross-shaped chamber tomb is oriented NNW. A dromos with dromos cells lead to the anteroom. From here is access to two smaller side chambers, each connected to the larger side chambers of the dromos. At the end of the vestibule a door leads to the rear chamber. The left dromos chamber is divided into three by two sets of fluted lesene, painted red. The triangular support above is also painted red. The rear chamber is also divided into three by two sets of pillars, painted red.

<sup>203</sup> Steingraber 1985, 268, cat. no. 3, figs. 3-4 (with further references); M.A. Rizzo in Rizzo 1989, 113-116, figs. 59-61, tav. LVla.

<sup>204</sup> Naso 1996, 35-38, cat. no. 1.2.1.4, figs. 9-10, tav. IV.1.

<sup>205</sup> Damgaard Andersen 1993b, 46-49 (with further references).

<sup>206</sup> Steingraber 1985, 269, cat. no. 6, Abb. 187 (with further references); M.A. Rizzo in Rizzo 1989, 117-119, figs. 67-69.

<sup>207</sup> Naso 1996, 34-35, cat. no. 1.2.1.3, tav. III.

<sup>208</sup> Naso 1996, 29-34, cat. no. 1.2.1.2, figs. 7-8, tav. I.1-II.4.

<sup>209</sup> Torelli 1984a, fig. 49 (dates the tomb *Orientalizzante Medio*, i.e. to the third quarter of the 7th century B.C.); Steingraber 1985, 270, cat. no. 7, fig. 5 (with further references).

<sup>210</sup> See also cat. no. 16.

<sup>211</sup> Steingraber 1985, 382-383, cat. no. 176, Abb. 197 (with further references); M.A. Rizzo in Rizzo 1989, 109-111, figs. 54-55, Tav. II.

<sup>212</sup> Naso 1996, 230-235, cat. no. 1.4.1.1, figs. 173-174.

<sup>213</sup> P. Pelagatti, 'Ricerche territoriale e urbanistica in Etruria Meridionale', *Secondo congresso internazionale etrusco*, Firenze 1985, suppl. di *StEtr*, Rome 1989, 303.

<sup>214</sup> In S. Giuliano a specific type of tombs exists (Prayon 1975, 66-68, Abb. 12). These are related to the Caeretan type B<sub>2</sub> because of their ground-plan and inner architecture, but otherwise they cannot be connected to any of the Caeretan types (examples: T. 1 di Valle Capellana (Romanelli 1986, 25-27, fig. 12); Tumulo del Caiola; T. M. Gabrielli).

<sup>215</sup> M. Pandolfini, 'Contributi all'archeologia vulcente', *Archeologia nella Tuscia* 2, *QArchEtr* 13, 1986, 78-83, figs. 2-3, tav. XXXV, XLI-XLIII; A.M. Sgubini Moretti, *Vulci e il suo territorio*, Rome 1993, 85-87, figs. 74-76.

<sup>216</sup> Gargana 1931, 369-374, 395, 399-402, 408, figs. 43-44, 67-70, tav. XXV, 43-XXVI, 45; Prayon 1975, 62-66, Abb. 9-10; Colonna di Paola 1978, 22-24, figs. 19-22; Steingraber 1981, 341-343, figs. 196-197; Romanelli 1986, 24-25, figs. 9-11, tav. 3-5; G. Barbieri, *Viterbo e il suo territorio*, Rome 1991, 119, fig. 85; Naso 1996, 118-128, cat. no. 1.2.2.1, figs. 91-99, tav. XII.1-2.



The three doors from the anteroom are of the *porta Dorica* type, while the remaining doors are arched. The door from the vestibule to the dromos has a frame painted in black.

In the left dromos chamber, of which the central part is two-faced with 8½ rafters and a narrow ridge beam, the rear part displays a hipped roof with a disc with radiating rafters (25 rafters with three purlins, running the circumference) (Figs. 58-59).<sup>217</sup> The inclination of the roof is c. 19°. The front part of the roof is slightly curved. In the right dromos chamber the roof is modern. The roof of the anteroom is flat and coffered with a diagonal pattern. On the roof is painted a series of floral and geometric designs (red, yellow, and black) (Fig. 60). The two small side chambers of the dromos both have modern roofs. In the rear chamber the roof is flat and coffered. On the back wall of the rear chamber are the remains of two painted standing antithetic felines (yellow and red). On the walls of the left dromos chamber are the remains of a yellow border.

In the rear chamber, between the two pillars on the left side is a kline, while benches are placed along the other walls. In the centre of the left dromos chamber is the remains of a rectangular base (Fig. 57).

The tomb is dated to the second half of the 7th century B.C., probably in the third quarter.

Near the tomb is a long rectangular basis for cippi, cut out of the tufa (Fig. 61).<sup>218</sup> The monument was approximately E-W oriented, and altogether bases for 17 cippi, placed in two rows, which all have been preserved. Within the southern row was a circular depression, possibly for a small altar. This monument may be as early as the T. Cima, though it cannot be excluded that it belonged to one of the later (6th century B.C.) tombs in the tumulus.

**Type C** (the so-called *Lünettentypus*):<sup>219</sup> type C<sub>1</sub> tombs are mainly NW-oriented, while type C<sub>2</sub> tombs can also be SW-oriented. The orientation of the tombs outside Cerveteri is only known in a few cases (ranging from NW to SW). The entire tomb-complex is smaller than type B, though the central chamber is larger. The size of the chambers increases from type C<sub>1</sub> to C<sub>2</sub>. The central chamber is placed at the end of the dromos. Only Type C<sub>1</sub> tombs in Cerveteri may have a circular anteroom. In type C<sub>2</sub> are used broad rectangular anterooms. The rear room is smaller than the anteroom.

The name of the *Lünetten*-type derives from the semi-circular panel above all the doors (in the older tombs type C<sub>1</sub> the inner doors still employ the trapezoidal type derived from type B<sub>2</sub>). While windows are unknown in type C<sub>1</sub>, they are common on either side of the door of type C<sub>2</sub>. Above these windows are also the semi-circular panel, the *Lünetten*.

The ceiling of the main chamber is almost flat and has a broad ridge beam (type C<sub>1</sub> outside Cerveteri may also employ arched ceilings). Only the circular anterooms of type C<sub>1</sub> in Cerveteri have a flat, beamed ceiling. In type C<sub>1</sub> tombs the rooms are fairly small with only room for two beds; in type C<sub>2</sub> the central chamber is wider and thus provides room for more beds. As an example can be mentioned T. dei Letti e Sarcofagi.

Cerveteri, T. 8-dei Letti e Sarcofagi (Figs. 62-63).<sup>220</sup>

The tomb consists of a dromos with side-chambers, a central room and a rear chamber. All rooms are rectangular, except that the rear wall of the rear chamber is curved. All doors are of the *Lünetten*-type.

<sup>217</sup> Of a similar type as the roof T. Campana 1, T. dei Leoni dipinti and T. della Nave 1, all in Cerveteri; and the T. del Sole e della Luna in Vulci.

<sup>218</sup> Colonna di Paola 1978, 24, fig. 19; Steingraber 1981, 343, fig. 197; Romanelli 1986, 29-32, figs. 9, 15, tav. 10; Edlund 1987, 72; Steingraber 1991, 1088-1092, figs. 1-2; Colonna 1993a, 334-336, fig. 5.

<sup>219</sup> See also Brocato 1996, 63-64.

<sup>220</sup> Ricci 1955, 233-241, fig. 17; Prayon 1975, 22, Taf. 21, 25, 85, 30.

Between the main room and the rear room the door is flanked by a *Lünetten*-window on either side. The ceiling of the main chamber is two-faced and low-pitched with a broad ridge beam. The inclination of the ceiling is 13°-15°. In all rooms are benches and klinai/sarcophagi

Examples: Type C<sub>1</sub>: Cerveteri (T. delle Croci; T. 50; T. 53; T. 58; T. 141; T. 242; T. 245; T. 285; T. del Tumulo II; T. 2 del Tumulo VII; T. di Monte Abatone; T. 1-13; Blera (T. I: B16); S. Giovenale, T. 8 di Porzarazzo; Rome (T. 1-4 di S. Onofrio); Tolfa (T. di Pian Cisterna); Type C<sub>2</sub>: Cerveteri (T. Canina 1; T. del Colonello 2; T. del Colonello 3; T. 8-dei Letti e Sarcophagi; T. 142-della Tavola; T. 143-della Spianata 1; T. 143-della Spianata 2; T. 174; T. 286-della Quercia; T. 309-della Casetta; T. del Tumulo IV; T. del Tumulo X); Alsium (T. di Monterone); Blera (T. della Sfinge; T. I:A; T. 13); S. Giovenale (Tumulo della necropoli di Casal Vignale, loc. Grotticelli<sup>221</sup>).

**Type D** (the so-called *Dreizellentypus*):<sup>222</sup> most of the tombs consist of cube-tombs, *Würfelgräber*, placed within small facade-tumuli. The new tombs are placed along a street within the cemetery. In Cerveteri the upper part is built of rectangular tufa blocks. Some of the tombs had a staircase leading to the flat roof, possibly used for burial rites. In comparison to the tombs of type B and C, which were long and narrow, the tombs of type D are short and broad. The ground-plan consists of a dromos, a broad central room (often more than twice as wide as deep), and up to three rooms behind (type D<sub>1</sub>). Tombs of type D<sub>2</sub> outside Cerveteri always only have one rear room, while the tombs of this type in Cerveteri may have either one or three rooms.<sup>223</sup> In the central room are often benches.

Columns are seen in type D<sub>1</sub>, and pillars in type D<sub>2</sub>. The earliest example comes from the anteroom of T. 56-dei Capitelli (type D<sub>1</sub>). They consist of a circular base, a fluted shaft, and an Aeolic capital (*Figs. 64-66*).<sup>224</sup>

The dromos doors of the early tombs of type D retain the *Lünetten*-shape, the later doors are rectangular. The inner doors are of the *porta Dorica* type. In type D<sub>1</sub> are often windows on either side of the *porta Dorica*, either rectangular or - in a few cases - of the *porta Dorica* type. Windows of the *Lünetten*-shape are only known in Cerveteri. No windows are known in type D<sub>2</sub>.

The ceilings are almost flat with a broad, flat ridge beam within the dromos rooms, the rooms behind the central room, and in the central room itself. Within the central room or vestibule are imitations of beams, cut out of the tufa, especially in type D<sub>1</sub>, such as T. degli Scudi e delle Sedie (*Fig. 67*). Examples of coffered ceilings are known, e.g. in T. 56-dei Capitelli (*Figs. 64-65*).

In type D can be seen thrones, shields on the wall, and chairs cut out of the tufa. As an example can be mentioned T. della Ripa (T. del Tablino).

Cerveteri, T. della Ripa (T. del Tablino) (*Figs. 68-69*).<sup>225</sup>

The tomb is placed within an irregular cube, the upper part built of tufa blocks. The tomb is very large with several chambers. From the dromos was access to cells on either side. From the central room is access to a side room on either side (both unfinished), and a rear room. The entrance to this room is a

<sup>221</sup> L. Ricciardi, 'S. Giovenale (Com. di Blera, Viterbo)', *StEtr* 51, 1985, 405-408, fig. 6; Romanelli 1986, 28.

<sup>222</sup> See also Brocato 1996, 63.

<sup>223</sup> For the development of the tombs from type C to D<sub>2</sub> outside Cerveteri see Prayon 1975, 72.

<sup>224</sup> Prayon 1975, Taf. 27,2.

<sup>225</sup> R. Vighi, 'La "Tomba del Tablino"', *NSc* 1955, 106-113; Prayon 1975, 157-158, Abb. 34, Taf. 45, 46,1; F. Prayon, 'L'architettura funeraria etrusca. La situazione attuale delle ricerche e problemi aperti', *Secondo congresso internazionale etrusco*, Firenze 1985, suppl. di *StEtr*, Rome 1989, 445.

large opening, covering the entire side of the room. From this rear room was access to another two side rooms.

All doors, including the large opening between the central room and the rear room are of the *porta Dorica* type. At the end of the rear room is a false door with four panels of the *Lünetten* type.

The ceilings differ: in the central rooms it is two-faced with a broad ridge beam and it is similar in the rear room except that the ridge beam is in a transverse position; in the two side rooms they are slightly arched and without a central ridge; in the two side rooms of the rear room as well as the ceilings of the two side rooms of the dromos are two-faced with a central ridge.

Funeral beds are cut out of the tufa.

Examples: Type D<sub>1</sub>: Cerveteri (T. degli Scudi e delle Sedie; T. con Tre Celle; T. 9-dei Vasi Greci (Attici); T. 56-dei Capitelli; T. 203-della Cornice 1; T. 236-della Cornice 2; Castel d'Asso (T. Orioli); S. Giuliano (T. Rosi); Tuscania (T. di Sasso Pizzuto); Vulci (T. 7; T. a; T. a12; T. a14); Type D<sub>2</sub>: Cerveteri (T. 1-dei Sarcofagi; T. Campana 2; T. Maroi 2; T. Maroi 3; T. della Sedia Canina; T. della Sedia Torlonia; T. della Ripa (del Tablino); T. 2 del Tumulo III; Sepolcro a dado con tre tombe); S. Giovenale (T. 1 (Gargana); T. 9 di Porzarago,<sup>226</sup> T. 1; Tumulo della necropoli di Ponton Paoletto<sup>227</sup>); S. Giuliano (T 2 di Valle Capellana); Vulci (T. a11; T. 48).

**Type E** (the so-called *Zweizellentypus*): this type is a development of type D. Like type D most of the tombs are placed in cube-tombs along a street within the cemetery. The Caeretan tombs are oriented towards E or S, while there is no uniform orientation for the tombs outside Cerveteri.

On some Caeretan tombs the dromos is in the shape of a shaft (*a caditoia*). Dromos cells are rare. The ground-plan of type E resembles type D, except that it is smaller because the central room is shorter (except for the tombs at Vulci, which have both broad and deep central chambers/vestibules). As opposed to type D there are only two rooms at the back.

In Cerveteri the dromos door is mainly rectangular, rarely of the *porta Dorica* type. All inner doors are mostly of the *porta Dorica* type, flanked by similar windows. These doors were painted as seen in T. dell'Argilla at Cerveteri, dated to the late 6th century B.C.<sup>228</sup> In this tomb the frames of two examples of the *porta Dorica* are painted white, the plastic outline around the frame red with a red line along the inside of the frame. The windows were painted exactly like the doors.

The ceiling is almost flat. Outside Cerveteri the ceiling may be slightly arched or entirely flat.

In the tombs are beds and in Cerveteri the door of the dromos may be flanked by two chairs. As an example can be mentioned T. di Marce Ursus.

Cerveteri, T. 335/336-di Marce Ursus (*Fig. 70*)<sup>229</sup>

The tomb is placed within a built cube, next to another tomb. The dromos leads to a broad rectangular central room. In the rear wall are the entrances to another two rectangular rooms.

The door from the dromos to the vestibule is a simple rectangular door, while the doors to both the rear chambers are of the *porta Dorica* type. Between the two doors are two closely set windows of the same type.

The ceiling of the central room is two-faced and low pitched with the broad ridge beam in a transverse position. The inclination of the roof is 11°-14°. The ceilings of the two rear rooms are similar, except that they are in the lengthwise position.

<sup>226</sup> Naso 1996, 150-154, cat. no. 1.2.2.4, figs. 113-119.

<sup>227</sup> Romanelli 1986, 35.

<sup>228</sup> Steingraber 1985, 269, cat. no. 4, Abb. 186 (with further references).

<sup>229</sup> Ricci 1955, 815-819, fig. 182, tav. 11; Prayon 1975, 27, Taf. 10,2, 13,2, 85,57.

There are funeral benches cut out of the tufa in all rooms. The name of the owner of the tomb, *Marce Ursus*, is incised on a wall in the left rear chamber. Another inscription is incised on a wall in the right chamber.

Examples: Cerveteri (T. degli Animali dipinti 2; T. dell'Argilla; T. del Colonello 4; T. Martini Marescotti; T. Mengarelli 24; T. 121; T. 130/131; T. 329; T. 335/336-di Marce Ursus); Chiusi (T. di Poggio Caiella); S. Giovenale (necropoli del Terzolo, T. 1 di Pontesili<sup>230</sup>; Castellina Camerata, T. della Regina<sup>231</sup>); Tarquinia (T. dei Tori)<sup>232</sup>; Tuscania (T. d 1/2; T. d3; T. Quilici Gigli D 2-5; T. Micali 3/4); Vulci (T. 79; T. 120/122.126/128.131.150.159.173/180).

**Type F** (the so-called *Caditoiatypus*): this type is especially known from Cerveteri, and it becomes the normal tomb type in the 5th and 4th centuries B.C. Most of the Caeretan tombs are reached via a shaft from the platform above.

The Caeretan tombs have two rooms (type F<sub>1</sub>) or one room (type F<sub>2</sub>). Outside Cerveteri only tombs with one room are known. If there are two rooms both are of the same width, though not of the same depth.

The central room of the later tombs at Cerveteri (type F<sub>2</sub>) often has a central pillar, a few two columns. Outside Cerveteri pillars and columns are only known at Blera.

The outer doors are rectangular, the inner doors of the *porta Dorica* type. The Caeretan doors may be flanked by similar windows, either in relief (T. 375) or painted (T. 382, T. 386; Laghetto II-T. 290 and T. 291).

The ceiling of the Caeretan tombs is almost flat with a broad ridge beam.

As furniture only funeral beds cut out of the tufa are known, except for two small chairs in the T. delle Sedie at S. Giuliano. As an example can be mentioned T. delle Colonne doriche.

Cerveteri, T. delle Colonne doriche (*Fig. 71*).<sup>233</sup>

The dromos leads to an irregular-shaped room with two octagonal columns without bases and with Etruscan-Doric capitals. The ceiling is low-pitched and two-faced with a broad ridge beam. On all sides of the room are funeral benches.

Examples: Type F<sub>1</sub>: Cerveteri (T. 371/374/375; T. 382; T. 386; T. 408/409/410); S. Giuliano (T. V i 125); Tuscania (T. Quilici Gigli C4); Type F<sub>2</sub>: Cerveteri (T. Canina 2; T. delle Colonne doriche; T. 218/219/220; T. 239; T. 323; T. 330/332; T. 350; T. 412/413-di Munise; T. 425/426/427; T. 428; T. 430/432; T. 434; Laghetto II-T. 290<sup>234</sup>; Laghetto II-T. 291<sup>235</sup>); S. Giuliano (T. Ciarlanti; T. delle Sedie; T. VII h 18); Blera (T. I:E5; T. I:A18; Grotta Dipinta); Tuscania (T. Quilici Gigli B 5).

### *Chronology of the tombs types*

The chronology for the different types of tombs suggested by Prayon is as follows (see below for diagram):

Type A: 680-630 B.C.

Type B<sub>1</sub>: 680-630 B.C.

Type B<sub>2</sub>: 650-600 B.C.

Type C: 625-550 B.C.

<sup>230</sup> Romanelli 1986, 37-38, fig. 16, tav. 18.

<sup>231</sup> Romanelli 1986, 38-39, fig. 20, tav. 17.

<sup>232</sup> Steingraber 1985, 358-359, cat. no. 120, Abb. 157-158; M.A. Rizzo in Rizzo 1989, 124-126, figs. 75-77, tav. IV-VI; Naso 1996, 198, cat. no. 1.2.1.53, figs. 146, n. 10, 149-150, 280.

<sup>233</sup> Prayon 1975, 29, 44, Taf. 26,2, 85,68.

<sup>234</sup> M. Bugli (ed.), *Gli etruschi di Cerveteri. Nuove acquisizione delle Civiche Raccolte Archeologiche. La prospezione archeologica nell'attività della Fondazione Lerici*, Milano, Palazzo reale, Settembre 1980 - Gennaio 1981, 154-160).

<sup>235</sup> M. Bugli (ed.), *Gli etruschi di Cerveteri. Nuove acquisizione delle Civiche Raccolte Archeologiche. La prospezione archeologica nell'attività della Fondazione Lerici*, Milano, Palazzo Reale, Settembre 1980 - Gennaio 1981, 161-164.

Type D: 575-525 B.C.

Type E: 550-500 B.C.

Type F: after 525 B.C.

This chronology is based on the ceramic finds, imported finds if possible.<sup>236</sup> Since the finds are poorly published, Prayon himself admits his proposed chronology is tentative.

The early phases of this chronology have been revised by Colonna and von Hase, primarily based on the same finds as well as adding some of the more recent excavated tombs and recent published studies of the ceramic material.<sup>237</sup> The outline of this chronology, based on inscriptions from the Orientalizing period, was proposed by Colonna in papers from 1968 and 1970.<sup>238</sup> Colonna and von Hase propose a higher date for the early tombs.<sup>239</sup>

*Orientalizzante Antico (piena fase): 720/710-690 B.C.*

*Orientalizzante Antico (finale): 690-670 B.C.*

*Orientalizzante Medio (iniziale): 670-650 B.C.*

*Orientalizzante Medio (finale): 650-630 B.C.*

*Orientalizzante Recente: 630-600 B.C.*

According to Colonna and von Hase, Prayon's type A and B<sub>1</sub> correspond to *Orientalizzante Antico* and type B<sub>2</sub> to *Orientalizzante Medio* (except Prayon's nos. 20-22, which belong to *Orientalizzante Recente*).<sup>240</sup> This gives a much higher chronology for the types of tomb groups established by Prayon. Following the chronology proposed by Colonna and von Hase, type A should be dated to approximately 710-690 B.C.; type B<sub>1</sub> to approximately 690-670 B.C. and type B<sub>2</sub> to 670-650/630 B.C.<sup>241</sup> All in all, the chronological system for the earlier tombs proposed by Colonna and von Hase seems reasonable.

The question arises what to do with Prayon's later types, since it is not clear from their work how this high chronology affects the dating of the later phases of Prayon's tomb types. Elsewhere Colonna dates the tombs of type D<sub>1</sub> to c. 610-590 B.C.<sup>242</sup> How he dates type C is not clear, i.e. whether it

<sup>236</sup> Prayon 1975, 47-52, Taf. 84.

<sup>237</sup> Colonna & von Hase 1984, 24-29. For previous attempts to define the Orientalizing phases see e.g. Roselle 1975, 24 n. 24 for references. Note that the chronology suggested by Bartoloni (1989) differs somewhat: *Orientalizzante Antico*/Early Orientalizing Period: 720-680 B.C.; *Orientalizzante Medio*/Middle Orientalizing Period: 680-625 B.C.; *Orientalizzante Recente*/Late Orientalizing Period: 625-575 B.C.

<sup>238</sup> G. Colonna, 'Rivista di epigrafica etrusca. Caere', *StEtr* 36, 1968, 265-271, esp. 268-271; G. Colonna, 'Una nuova iscrizione etrusca del VII secolo e appunti sull'epigrafia ceretana dell'epoca', *MEFRA* 82, 1970, 637-672, esp. 657-661. These articles, however, are only concerned with single tombs and the sequence and chronology of Orientalizing inscriptions.

<sup>239</sup> These dates are based on the information in Colonna & von Hase 1984; Colonna 1986 (esp. 394-399, 399-423, 423-431).

<sup>240</sup> Colonna & von Hase 1984, 24 n. 14.

<sup>241</sup> The change from type A to type B<sub>1</sub> is not dated precisely by Colonna & von Hase.

<sup>242</sup> Colonna 1986, figs. 302-303. This chronology is also followed by Brocato 1996, 85, 88.

should be dated in the remaining years, i.e. 630-610, or whether the period overlap and in that case how much. Colonna has not suggested any other dates for the latest types (type E and F), but because of Attic pottery in these tombs the chronology can hardly be changed much.

A different chronology system was proposed by R.E. Linington.<sup>243</sup> He suggested a division into seven periods: period 1 (8th century B.C.); period 2 (late 8th-first half of the 7th centuries B.C.); period 3 (second half of the 7th century B.C.); period 4 (late 7th-first half of the 6th centuries B.C.); period 5 (second half of the 6th-5th century B.C.); period 6 (late 5th-4th centuries B.C.); period 7 (3rd-early 2nd centuries B.C.). This system is widely used in publications of newly found tombs. These periods are based on both the contents of the tomb as well as the structural and architectural element (type of tomb, plan, furniture cut out of the tufa, etc.).

His system corresponds thus to Colonna and von Hase: period 2 corresponds to *Orientalizzante Antico (finale)*, period 3 to *Orientalizzante Medio*.<sup>244</sup>

Recently Naso has discussed the painted architectural details in tombs, and in his catalogue he dates several of the tombs also discussed by Prayon and Colonna & von Hase. Unfortunately Naso only dates the individual tombs, but not the overall chronology. Since only few of the tombs he dates are discussed by Prayon, Naso's chronology is difficult to use. However, for the later tombs, he seems to suggest that they be placed slightly further back, thus he dates tombs of type E from 575/50 B.C. onwards (compared with Prayon's date of 550-500 B.C.) and type F from 550 B.C. onwards (compared with Prayon's date of after 525 B.C.).

	Prayon	Colonna & von Hase	Linington	Naso
Type A	680-630	720-670	period 2 (710-650)	
Type B <sub>1</sub>	680-630	720-670	period 2 (710-650)	
Type B <sub>2</sub>	650-600	670-630	period 3 (650-600)	
Type C	625-550	?		
Type D <sub>1</sub>	575-525	610-590		

<sup>243</sup> R.E. Linington, *Lo scavo nella zona Laghetto della necropoli della Banditaccia a Cerveteri*, *Rassegna di Studi del Civico Museo Archeologico e del Gabinetto Numismatico di Milano*, *Notizie dal Chiostro del Monastro Maggiore* 25-26, 1980, esp. 13-29.

<sup>244</sup> Colonna & von Hase 1984, 24 n. 14.

Type D <sub>2</sub>	575-525	?		
Type E	550-500	?		575/50 onwards
Type F	after 525	?		550 onwards

## TOMB PAINTINGS AND PAINTED SLABS WITH ARCHITECTURAL FEATURES

A number of tombs with painted decoration on ceilings and walls show architectural features.<sup>245</sup>

### Columns<sup>246</sup>

Only a few painted columns are known. Aside from the example from Castro mentioned below, they are known from the Tomba delle Leonesse at Tarquinia, dated to c. 520 B.C. (*Figs. 72-73*)<sup>247</sup> They are seen in the four corners and on the left and right wall. They are of the Tuscan type, tall and slender and unfluted with a basis and a capital consisting of an *abacus* and an *echinus*. The column itself is painted red, the *echinus* green, the *abacus* light red. Between the column and the *echinus* is a black band.

Columns are also seen in Tarquinia, T. n. 3045.<sup>248</sup>

On a painted slabs from Cerveteri, dated to 530-520 B.C., a single column is seen (*Fig. 74*).<sup>249</sup> Behind a man facing towards an altar is a free standing column of the Tuscan type with a very large *abacus* and a small *echinus*. The column itself is painted dark-red, the *echinus* black, the *abacus* red. Between the column and the *echinus* is a coloured band with a semi-circular profile. The column thus resembles the ones from Tomba delle Leonesse. Whether it a building or a stand is uncertain. Such stands in the shape of columns often functioned as supports for large bowls either as votive offerings in sanctuaries (e.g. the Caeretan hydria now in Copenhagen, the Danish National Museum, or as prizes in a horserace (e.g. the frieze from the Upper Building at Murlo).<sup>250</sup>

### Pilastre and lesene<sup>251</sup>

Painted pilastre are rare in tombs. They are seen in Cerveteri, T. d. Maroi 1, San Giuliano, T. Cima (*Figs. 57-59*), and in Tarquinia, T. del Cacciatore (*Fig. 75*).<sup>252</sup> In T. Maroi 1 and T. Cima they are

<sup>245</sup> For these in general see Naso 1996.

<sup>246</sup> Naso 1996, 396-402.

<sup>247</sup> Steingraber 1985, 324-24, cat. no. 77, Abb. 97, 100-102; M.A. Rizzo in Rizzo 1989, 131-132, figs. 81-83, tav. VIII-XII; Naso 1996, 191, fig. 146,22.

<sup>248</sup> Naso 1996, 209, cat. no. 1.3.1.112.

<sup>249</sup> Now in the Louvre inv. Cp 6626 (Polacco 1952, 34, tav. II,1; F. Roncalli, *Le lastre dipinte da Cerveteri*, Florence 1965, 18-19, cat. no. 3, tav. III (with further references)); Prayon 1986, 198, fig. V-44; G. Colonna in *Santuari d'Etruria* 1985, 43, no. 1.30 (ill.).

<sup>250</sup> For these see Colonna 1993b, 62, figs. 10-11 (with further references).

<sup>251</sup> Naso 1996, 394-396.

<sup>252</sup> For T. Maroi 1 and T. Cima see above. For T. del Cacciatore see Naso 1996, 187, cat. no. 1.3.1.11, fig. 146

rectangular, tapering, and without a capital. They are painted red. In T. del Cacciatore they are dark-red and placed at short intervals, creating the impression of a tent or pavilion (for a discussion of this see further chapter 5 on funerary buildings).

Painted lesene (red) are only preserved in T. Cima. They are the oldest lesene in Etruria (dated to the third quarter of the 7th century B.C.). Lesene may also have been used in Vulci, T. del Sole e della Luna (now lost), dated to the same period.<sup>253</sup>

### **Walls**<sup>254</sup>

Several tombs, especially in Tarquinia, have a painted decoration on the wall, both ornamental and figural. So far we have no evidence for figural painted decorations in the buildings. To what extent the ornamental decoration reflects a decoration in buildings is uncertain.

In a few early tombs are traces of painted wall cornices (red and black dogteeth), such as in the Tomba dei Denti di Lupo in Cerveteri, dated to the 650-630 B.C.<sup>255</sup>

### **Doors**<sup>256</sup>

In a number of tombs doors are painted on either the rear or the side walls (*Fig. 76*), especially in Tarquinia.<sup>257</sup> All doors are either rectangular or of the *porta Dorica* type.<sup>258</sup> The shape and decoration of the doors and the frames, however, vary: the frames are usually simple and painted in one colour (usually red), often with an outline in a different colour (usually dark red).

Naso has identified three types of doors (*Fig. 76*): 1. the simple rectangular door and 2. the rectangular door with an upper beam wider than the door, 3. the *porta Dorica*.<sup>259</sup> The simple rectangular door is divided into four panels by one or more painted black lines (*Fig. 77*). These doors are all dated to the first half of the 6th century B.C. In type 2 the uppermost horizontal furnishing is placed further down the door than on the other doors. The doors are painted in red and brown. The earliest example is the T. della Capanna in Tarquinia, dated to the second quarter or the mid-6th century B.C. (*Fig. 78*).<sup>260</sup> Most of the Archaic examples, however, date to the fourth quarter of the 6th century B.C. or the first quarter of the 5th century B.C. In type 3 - the most common type - the door is

n. 12.

<sup>253</sup> Naso 1996, 395.

<sup>254</sup> Naso 1996, 402-412.

<sup>255</sup> Baglione 1991, 747 n. 50; A. Naso, *La tomba dei Denti di Lupo a Cerveteri, Biblioteca di Studi Etruschi 22*, Florence 1991, 42-43; Naso 1996, 38-42, figs. 11-13, tav. IV.2-3.

<sup>256</sup> Naso 1996, 412-423.

<sup>257</sup> Chiusi: T. del Pozzo a Poggio Renzo, dated to the early 5th century B.C. Tarquinia: T. degli Auguri, dated to 520 B.C.; T. Bartoccini, dated to 530-520 B.C.; T. della Capanna, dated to the second quarter to the mid-6th century B.C.; T. Cardarelli, dated to 510-500 B.C.; T. del Citaredo, dated to 490-480 B.C.; T. della Fustigazione, dated to 490 B.C.; T. delle Iscrizioni, dated to 520 B.C.; T. dei Leoni di Giada, dated to 530-520 B.C.; T. delle Olimpiadi, dated to 510 B.C.; T. del Topolino, dated to 520-510 B.C.

<sup>258</sup> Naso 1996, 413-416.

<sup>259</sup> Naso 1986, 417-420.

<sup>260</sup> Steingraber 1985, 304, cat. no. 52, fig. 105.



framed to form a *porta Dorica*, such as in the Tomba Bartoccini in Tarquinia,<sup>261</sup> dated to 530-520 B.C. with a checkered pattern on the frame (red and white). Similar doors (though without the checkered pattern) are seen in the T. dei Tori in Tarquinia, dated to 530 B.C., T. del Citaredo, dated to 490-480 B.C., and T. della Scimmia in Chiusi, dated to 480-470 B.C.<sup>262</sup> These frames are either red with a dark outline or white/cream with a red outline.

All the doors seem to represent wooden doors with metal furnishings: three horizontal furnishings (one at the top, one at the bottom and one in the centre) and a vertical furnishing in the centre of the door. The panels of the door are painted red, the furnishings dark red or brown/purple. Painted circles with dots in the centre indicate studs or nails to fasten the furnishings to the door. The door is two-winged.

In the T. del Citaredo in Tarquinia, dated to 490-480 B.C., a slightly different type of door is seen:<sup>263</sup> on the back wall of the tomb two doors are painted next to each other. Each door is rectangular with a cross, dividing the door into four panels. Above the frame are two birds at the corners and a floral motive in the centre. These ornaments are interpreted as akroteria, and the doors are taken to represent stone doors.

In most tombs with wall paintings the door from the dromos to the chamber or from the central chamber to the side-chambers is an ordinary rectangular door cut out of the rock. In some cases a simple frame is painted around the door, such as in the T. degli Animale dipinti in Cerveteri,<sup>264</sup> dated to third quarter of the 7th century B.C., or in the T. Campana in Veii,<sup>265</sup> dated to the late 7th century B.C.

Painted windows in tombs are only known from Cerveteri (see above).

### Gables<sup>266</sup>

In a few painted tombs a painted and/or relief decoration, probably symbolizing the woodwork construction of the gable, can be seen. In the T. della Capanna in Tarquinia it consists of a king-post and two oblique supports (*Fig. 78*),<sup>267</sup> and in T. GM 1 in Bisenzio it consists of a broad king-post in relief and a painted vertical support at either side.<sup>268</sup> In the same tomb is another gable with a broad painted king-post and three vertical supports at either side (*Fig. 79*).

<sup>261</sup> Steingraber 1985, 294-295, cat. no. 45, figs. 63-64, Abb. 35; M.A. Rizzo in Rizzo 1989, 127-130, figs. 78-82, tav. VI.

<sup>262</sup> T. dei Tori (Steingraber 1985, 358-359, cat. no. 120, Abb. 157-158, M.A. Rizzo in Rizzo 1989, 124-126, figs. 75-77, tav. IV-VI, Naso 1996, 198, cat. no. 1.2.1.53, figs. 146, n. 10, 149-150, 280); T. del Citaredo (Steingraber 1985, 309, cat. no. 57, fig. 136); T. della Scimmia (Steingraber 1985, 281-282, cat. no. 25, figs. 34-38, Abb. 193-194).

<sup>263</sup> Steingraber 1985, 309, cat. no. 57, fig. 136; Naso 1996, 188. Unfortunately, the paintings are not preserved.

<sup>264</sup> Steingraber 1985, 268, cat. no. 3, fig. 4; M.A. Rizzo in Rizzo 1989, 113-116, figs. 67-69.

<sup>265</sup> Steingraber 1985, 382-383, fig. 398; pl. 197; M.A. Rizzo in Rizzo 1989, 109-111, figs. 54-55; tav. II.

<sup>266</sup> Naso 1996, 368-394.

<sup>267</sup> Naso 1996, 187-188, cat. no. 1.3.1.12, figs. 146, n. 2, 269.

<sup>268</sup> Naso 1996, cat. no. 1.4.2.1, fig. 190.

The gables in especially Tarquinia often have a curved red midpost or support.<sup>269</sup> On either side of the midposts are often two antithetic felines. These mid-posts probably represent king-posts. The painted decoration of the Tomba n. 5892 in Tarquinia show three such (simple) midposts, each below a painted band in the ceiling/roof (*Fig. 80*).<sup>270</sup> This must be interpreted as three supports for the central ridge beam and two purlins. The earliest midposts are found in Cerveteri (T. 2 della Cornice), dated to the first half of the 6th century B.C. Naso has suggested a development of these midposts from simple curved midposts to more elaborated ones with volutes and finally to more stylized ones (*Fig. 81*).<sup>271</sup> Type 1 is dated to 530-520 B.C.; type 2 to 520-550 B.C.; type 3 to the third quarter of the 6th century to the second half of the 5th century B.C.; and type 4 to 470-450 B.C. Other types of *sostegni* are also seen in funerary architecture (*Fig. 82*). Though no certain evidence of the tie beam and the two principal rafters is seen, the elements of these painted gables point to a truss construction.

### Ceilings/roofs<sup>272</sup>

The rendering of the ceilings varies considerably in the painted tombs. They may either be two-faced, slightly slanting, completely flat, or - rarely - convex.<sup>273</sup> The ceilings have often painted decoration, especially in Tarquinia, which probably resembles how ceilings of domestic building were painted. As was the case with the tombs of Cerveteri it is a problem to distinguish ceilings from (the underside of the) roofs, but the evidence from Cerveteri seems to imply that from the second half of the 6th century B.C. separate ceilings were used under the roof. Six different types of decoration are employed on the ceiling:

1. a uniform colour, often white/cream. Numerous examples of this are known.
2. small flowers either solely red or both red and black on a white/cream ground. These are known in a number of tombs.
3. a checkered pattern (either red and white/cream, sometimes also dark red, light red, blueish grey, black, or green). Another type with diamonds is also known.<sup>274</sup>

Checkered patterns are known from a number of tombs in Tarquinia,<sup>275</sup> such as T. Bartocchini, dated to 530-520 B.C. (*Fig. 83*)<sup>276</sup> and T. del Cacciatore in Tarquinia, dated to 510-500 B.C. (*Fig. 75*).<sup>277</sup> Several possibilities for their interpretation are possible: a simple painted decoration; cloth; or the

<sup>269</sup> Some scholars consider these midposts altars. For a discussion of this see Naso 1996, 368-369.

<sup>270</sup> Naso 1996, 217-218, fig. 162.

<sup>271</sup> Naso 1996, 375-385.

<sup>272</sup> Naso 1996, 343-367.

<sup>273</sup> Such as in the main chamber of the T. Campana in Veii.

<sup>274</sup> Naso 1996, 365 (with further references).

<sup>275</sup> For a list see Naso 1996, 364-365.

<sup>276</sup> Steingraber 1985, 294-295, cat. no. 45, figs. 63-64, Abb. 35; M.A. Rizzo in Rizzo 1989, 127-130, figs. 78-82, tav. VII; Naso 1996, 186, cat. no. 1.3.1.6, fig. 146.5.

<sup>277</sup> Steingraber 1985, 303-304, cat. no. 51, Abb. 52-53; Naso 1996, 187, fig. 146,12.

underside of the painted pan tiles.<sup>278</sup> The last theory I find unlikely. There are several reasons for this: 1. the tombs in question are all dated to the Late Archaic period, a period where ceilings are usually shown. 2. Very few tiles with painted undersides are known, and these are probably to be interpreted as eaves tiles, the underside of which (at least partially) would be visible. 3. These painted squares do not correspond in shape to the elongated rectangular tiles, and the diamond shaped pattern does not support an identification as tiles. Naso has argued that the wooden structures depicted in the tombs were too massive for tents and that a tomb in Castro, Maccarino, has a depiction of a gable with principal rafters, a tie beam, and a king-post.<sup>279</sup> I do not find these arguments conclusive. A tent or a pavilion for a prothesis or a funeral banquet could probably be quite large and would have needed substantial wooden support, and I see no reason why a triangular gable construction could not have been used in tents. Furthermore, it is likely that the structural elements would have been exaggerated in order to emphasize them.

I still believe<sup>280</sup> that these checkered patterns must represent roofs of tents (for the significance of these tents see chapter 5). The painted vertical supports in the T. Cacciatore also clearly show a tent construction with a "roof" with a checkered pattern (*Fig. 75*).<sup>281</sup>

4. coffered ceilings. This is seen in the side chamber of T. del Pozzo a Poggio Renzo in Chiusi,<sup>282</sup> dated to the early 5th century B.C. (*Fig. 84*).

5. ceilings with a painted column and discs. This is seen in T. dei Denti dei Lupo (*Fig. 85*).<sup>283</sup>

Decoration painted on the column, however, is often seen, such as rosettes and circles. This type of decoration is known from the second half of the 6th century and becomes popular in the 5th century B.C.<sup>284</sup> The earliest is in the T. Bartoccini in Tarquinia.

6. ceilings with representations of rafters and purlins, such as in the T. Frontoncino, dated to 510-500 B.C.<sup>285</sup> These representations are especially important since they are our main source (together with similar renderings cut out of the tufa such as are common e.g. in the tombs of Cerveteri) for reconstruction the woodwork of the roofs. In none of these tombs, however, do the measurements of the painted elements correspond to the measurements of real architectural elements.<sup>286</sup> One of the best examples can be seen in Castro:

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<sup>278</sup> Naso 1996, 363, 365.

<sup>279</sup> Naso 1996, 366, fig. 273. There is no reference to any publication, nor is the tomb dated.

<sup>280</sup> As I have previously argued in Damgaard Andersen 1993a, 83. This identification is also suggested by other scholars (for references see Naso 1996, 365 n. 587).

<sup>281</sup> Steingraber 1985, 303-304, cat. no. 51, Abb. 52-53; Naso 1996, 187, fig. 146,12.

<sup>282</sup> Steingraber 1985, 280-281, cat. no. 24, fig. 24.

<sup>283</sup> Naso 1996, 38-40, figs. 11-13, tav. IV.2-3. In the case of the tomb Sorbo 1 the column and discs are in relief with a painted decoration (Naso 1996, 29-34, cat. no. 1.2.1.1, figs. 6, 23).

<sup>284</sup> Naso 1996, 360-363.

<sup>285</sup> Steingraber 1985, 314, cat. no. 66, fig. 153, Abb. 72.

<sup>286</sup> Naso 1996, 360.

Grotte di Castro, loc. Pianezze, Tomba 2 (Figs. 86-87).<sup>287</sup>

The tomb consists of a dromos to a large rectangular main room, and a small rectangular rear room, placed in the left side of the main room. Between the main room and the rear room is a short corridor. In both rooms are rectangular depressions for burials. At the rear end of the main room is a half-column in relief with a rectangular base and semi-circular capital. The ceiling of the main room is two-faced, the inclination is 24°. In the ceiling is a broad ridge beam with a thick purlin on either side. Transversing these are 13 rafters, the outermost being of the same thickness as the purlins. Parallel to the purlins are - on either side of the purlins - 3 thin lines, representing "additional purlins", probably supports for the pan tiles. The half-column, the ridge beam, the rafters, and the purlins are painted red.<sup>288</sup>

The tomb is dated to the mid-6th century B.C.

In the centre is often a central ridge - sometimes in low relief - usually painted red. A few, however, have a decorated central ridge,<sup>289</sup> such as the one in the T. Cardarelli with circles made of dots and floral motives (dated to 510-500 B.C.),<sup>290</sup> or the one in the T. dei Leopardi with concentric circles (dated to 470 B.C.).<sup>291</sup>

In the case of the painted tombs in Tarquinia and elsewhere the inclination of the roofs varies from 7.5° to 27°,<sup>292</sup> but since all not necessarily depict roofs, nor even ceilings, and because of the large work involved in cutting "real" pitched roofs, these inclinations cannot be used as indicators of which types of roofs are depicted.

#### IDENTIFICATION OF THE MODELS/DEPICTIONS OF BUILDINGS

To what extent these representations of buildings reproduce buildings is difficult to determine. Let us first consider the house models and depictions of buildings. Even if doors and windows are not depicted, I believe that there can be no doubt that these urns represent buildings, even if all details are not real (such as e.g. panels on the falls of the roof on some of the Chiusine house urns),<sup>293</sup> and I

<sup>287</sup> P. Tamburini, 'La civita di Grotte di Castro', *Annali della fondazione per il museo "Claudio Faina"* 2, 1985, 189, figs. 2 and 27 (with further references); Romanelli 1986, 53-54, tav. 41, fig. 37; Naso 1996, 282-285, figs. 212-214, tav. XVIII.

<sup>288</sup> Naso 1996, 400. For some unknown reason Naso interprets this as representing a tent.

<sup>289</sup> Steingräber 1985, fig. 198; Naso 1996, pl. XX.2.

<sup>290</sup> Steingräber 1985, 304-305, cat. no. 53, figs. 106-108, Abb. 54-58; Naso 1996, 188, fig. 146,33.

<sup>291</sup> Steingräber 1985, 327, cat. no. 81, figs. 204-205, Abb. 105-109; M.A. Rizzo in Rizzo 1989, 143-144, figs. 7, 96-98, tav. XXXIV-XXXVI.

<sup>292</sup> Ö. Wikander 1993, appendix 6.

<sup>293</sup> This interpretation is also suggested by Bartoloni, Beijer & De Santis 1985, 188-190 - see also G. Bartoloni, 'L'urna a capanna dell'Esquilino: una nuova lettura', *ArchCl* 37, 1985, 6-7. Buranelli 1985, 56 prefers to regard these urns as *casette*, though he admits that the two-faced roofs refer to houses, while Steingräber 1979, 50-51 considers them *Truhen*.

Recently, C. Wikander has argued, not convincingly I believe, that the hut and house urns should be regarded more as symbols than representations of real buildings ('From huts to houses. The problem of indigenous roof-decoration', in L. Karlsson & R. Brandt (eds.), *Proceeding of the symposium "From huts to houses - transformation of ancient societies"*, Rome, 22-24 September 1997, *OpRom* forthcoming).

consider them important evidence for the reconstruction of Etruscan buildings and especially the roof-system.<sup>294</sup>

Regarding the hut urns of the Early Iron Age most scholars agree that they reflect real huts,<sup>295</sup> there is some disagreement as to what type of building they depict: temples, store-houses/granaries or huts for habitation. Likewise determining the function of actual huts is difficult since very few artifacts, besides domestic pottery, have been found with them. Furthermore, in this period there was apparently no difference between habitation huts and sacred huts, judging both from actual hut remains (e.g. the hut beneath the later temples in Satricum, discussed in chapter 2 and 4),<sup>296</sup> and literary sources.<sup>297</sup> Maaskant-Kleibrink has suggested that the circular huts found at Satricum should be interpreted as cooking/baking sheds.<sup>298</sup> She expands the theory to include the circular hut urns from all of Latium by further suggesting that these represent food-storing sheds. Whether or not the identification of the circular huts from Satricum is correct, the material is too limited to draw such wide-ranging conclusions about the circular hut urns from Latium. It is difficult to see why people would want to be buried in a model of a food-storing shed. And what about the circular hut urns and huts in Etruria? I believe that the hut urns must represent a domestic building, probably the home of the deceased.

All other funerary depictions should be interpreted likewise: the capstones (*Fig. 21*), the finials from Tarquinia (cat. nos. 57-58)(*Figs. A54-A55*), the stele from Bisenzio (cat. no. 59)(*Fig. A56*), and the incised hut on the Bologna stele (cat. no. 65)(*Fig. A60*).

The scenes on the Verucchio throne (cat. no. 86)(*Fig. A80*) seem to depict scenes from everyday life, spinning and weaving taking place outside and inside the hut/house. Thus, these buildings should also be interpreted as domestic buildings.

Regarding the Orientalizing and Archaic house urns, sarcophagi and cippi they should probably also be interpreted as domestic buildings. Also the early ones should probably be considered houses, not huts.

A specific group is the prothesis-scenes on the Chiusine cippi (cat. nos. 67-72)(*Figs. A62-A66*). They take place either in a building or a tent and should probably be interpreted as funerary buildings (see further chapter 5). The scene with the column on the *Pietra Zannoni* (cat. no. 66)(*Fig. A61*) is more uncertain, but it is possible that the column represents a funerary building.

The scene on the intaglio (cat. no. 87)(*Fig. A81*) is more difficult. If the interpretation of the nuptial scene is correct, the building must depict a domestic building.

The model from Sala Consilina (cat. no. 73 (*Fig. A67*)) should probably be interpreted as a domestic building like the hut urns since it was found in a tomb.

<sup>294</sup> Similar opinions are expressed by e.g. Camporeale 1986, 256; Rowe 1989, 135 (in general) and Jannot 1984, 212-213 (with regard to the house urns from Chiusi).

<sup>295</sup> For a discussion of this see Gierow 1966, 72-74 with further references.

<sup>296</sup> I have further argued for this in Damgaard Andersen 1993a, 84. See also chapter 5.

<sup>297</sup> Varro (in Servius *ad Aen.* 1.505); Livy 1.10.

<sup>298</sup> Maaskant-Kleibrink 1991, 82-83 (see also chapter 2).

The identification of the (other) votive models has been widely discussed. It is often assumed, e.g. by Staccioli, that all the Archaic and later votive models represent temples. The reasons are:<sup>299</sup> 1. they are all found in sanctuaries; 2. several later models resemble temples; 3. all models have broad openings in the front, which could have been used to place statuettes of deities in; 4. Because early temples were in the shape of huts (based on the evidence of the hut underneath the temples at Satricum (see chapter 2 and 5)) the earliest models should be interpreted as temples because they resemble huts.

First of all only five models can with certainty be said to have been found in sanctuaries (Veii, Portonaccio (cat. no. 79)(*Fig. A73*), Rome, S. Omobono (cat. no. 83)(*Fig. A77*), and the three from Satricum (cat. nos. 74-76)(*Fig. A68-A70*). Admittedly, several of the later models represent temples, such as the late model from Vulci, but not all, such as the stoa and tower also from Vulci,<sup>300</sup> though they could be buildings in a sanctuary. Secondly, the argument that the models were used to display a figure of a deity because of the large open front does not seem valid for the Archaic period. Only three of the models have large openings (cat. nos. 74, 75, and 80)(*Figs. A68, A69, and A74*), while another three have more narrow opening like for a door (such as in the tombs - see below) (cat. nos. 73, 76, and 79)(*Figs. A67, A70, and A73*). For the remaining urns it is not possible to determine the size of the opening. The reason for the large openings may be either that they represent simplified doors, or the models may have been used to deposit offering - if the latter was the case this does not prove whether the buildings were intended to represent temples or domestic buildings. In the case of the Velletri model (cat. no. 80)(*Fig. A74*) the opening had to be large in order to see the two rooms inside. Furthermore, except for the later Chiusine model now in the British Museum,<sup>301</sup> all the parallels cited by Staccioli are Southern Italian or Greek, and none of them are dated to the Archaic period. Finally it is quite right that the early models look like huts, but does hardly prove that the early models cannot be interpreted as domestic buildings!

Thus, no weighty arguments for a temple identification for all the votive models have been put forward. In fact regarding most of the Archaic models there is nothing to indicate that they represent temples, with the exception of two models. Regarding the model from Veii, Portonaccio (cat. no. 82)(*Fig. A77*) the antefixes on the building resemble the ones on the temple itself, which may indicate a temple identification. Likewise the Chiusine podium (cat. no. 84)(*Fig. A78*) because of the podium possibly represents a kind of open-air sanctuary (or a temple could have been placed on top of the podium).

The Velletri model (cat. no. 80)(*Fig. A74*) is often interpreted as a temple because of its two rooms - some scholars have claimed that the two rooms should represent a triple cella, but that the three

<sup>299</sup> For an interpretation of these models see Staccioli 1968a, 67-71, 81-83; Mambella 1982, 42 n. 31; R.A. Staccioli in *Santuari d'Etruria* 1985, 58, cat. no. 2.3; Staccioli 1989-1990; Maaskant-Kleibrink 1991, 85.

<sup>300</sup> The stoa (Staccioli 1968a, 26-27, cat. no. 16, tav. XVI; *Villa Giulia* 1980, 66-67, no. 72 (ill.)), and the tower (Staccioli 1968a, 27-28, cat. no. 18, tav. XVII-XVIII).

<sup>301</sup> See cat. no. 17 for references.

rooms were reduced to two because of lack of space.<sup>302</sup> Staccioli suggests that the building may represent a temple with two rooms and gives parallels for this construction in Southern Italy.<sup>303</sup> On the other hand, as other scholars also have mentioned,<sup>304</sup> the ground-plan of the Velletri model closely resembles domestic buildings such as the ones from Acquarossa.

Some scholars have claimed that votive models may represent thesauroi. This, however, is very difficult to prove.<sup>305</sup>

Thus it is not possible to determine which building type the votive models represented (except for the podium model from Chiusi and the one from Veii, Portonaccio (cat. nos. 82 and 84)(Figs. A76 and A78)), but nothing indicates that they cannot be ordinary domestic buildings - on the other hand nothing speaks against an identification of these models as temples.

The architecture of the tombs representing the exterior of buildings seems to be partly inspired from the tombs in Cerveteri, partly from domestic buildings,<sup>306</sup> and it is tempting to consider especially the house tombs more or less accurate copies of the exterior of domestic buildings. Bianchi Bandinelli suggests - rightly I believe - that the cubic shape of the tomb was an imitation of the house, but that the mouldings on the tombs imitated mouldings on stone altars, since such mouldings are not known on domestic buildings,<sup>307</sup> nor from votive or funerary models.<sup>308</sup>

The cubic tombs only resemble houses in terms of shape, but not the roof. The flat roofs with the platform as well as the *loggia* cannot be paralleled in preserved remains of buildings, though it cannot be excluded that they existed (for a discussion of flat roofs see chapter 4). The *porta Dorica* type resemble both the painted doors in tombs in Tarquinia as well as inner doors in the tombs of Cerveteri - in excavated buildings no evidence for this type of door has been preserved.

The two-faced roofs of the house tombs naturally imitate a roof on a house, both in terms of shape, inclination and architectural elements such as the ridge beam, the gable construction, etc. The akroteria on the tomb in Pian di Mola at Tuscania and in Populonia resemble akroteria such as they are known from e.g. Civita Castellana, Satricum, or reliefs on Chiusine cippi. The doors are of the same type as the doors in the cube tombs.

The tombs with an upper *loggia* may represent houses, but so far no houses can be reconstructed in such a way. It is of course tempting to see these two floors as evidence for Etruscan houses with two floors (for this see further chapter 4).

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<sup>302</sup> Colonna 1986, 492-493.

<sup>303</sup> Staccioli 1989-1990, 94-95.

<sup>304</sup> Staccioli 1989-1990, 94 (with further references).

<sup>305</sup> M. Sestieri Bertarelli, 'Il tempietto a la stipe votiva di Garaguso', *Atti e memorie società Magna Grecia*, n.s. II, 1958, 77; Staccioli 1968a, 71. For a discussion of thesauroi see further chapter 5.

<sup>306</sup> For this in general see Colonna di Paola 1978, 15; S. Steingraber 'Felsgräberarchitektur', *AntW* 16, Heft 2, 1985, 36-37.

<sup>307</sup> Mouldings are known on very few buildings - for these see chapter 4.

<sup>308</sup> See Colonna di Paola 1978, 15 (with further references).

Regarding the tombs representing the interior of the buildings there can be no doubt that they reflect domestic buildings (the ground-plan compared with that of houses from e.g. Acquarossa, the windows and doors, and the furniture cut out of the tufa. It is of course debatable to what degree these tombs imitate "real" houses, but as they seem to resemble the evidence from the archaeological remains of buildings as well as the evidence from models, I do not see why they should be considered "symbolic" as some scholars do. Regarding the earliest tombs (Type B<sub>1</sub>) they are quite different from each other, and this phase should perhaps be regarded as an experimental phase. However, there can be no doubt that the Tomba della Capana imitates a building. Regarding the later tombs they are much more uniform, even if differences can still be seen. Admittedly two features found in the tombs cannot be found in contemporary buildings: one is the low inclination of the roof, probably because of the large work involved in cutting a high-pitched roof. It is also possible (for the same reason) that the walls are lower and the rooms smaller in the tombs than in "real buildings". The other is the circular anteroom/vestibule found in some of the tombs of type B<sub>2</sub> and C<sub>1</sub>. These may have been related to funerary ceremonies or religious beliefs.

Regarding the early tombs it is uncertain whether they depict huts or houses. Considering the size, the number of rooms, the pilastre, and the fairly elaborate/substantial roof construction they should probably be considered houses (with thatched roofs).

## CONCLUSION

### EVIDENCE FROM THE EARLY IRON AGE AND THE ORIENTALIZING PERIOD - HUTS AND HOUSES WITH THATCHED ROOFS

Regarding the Early Iron Age our primary evidence comes from approximately 200 hut urns, dated from the 10th to the 8th centuries B.C. The ground-plan can either be circular, oval, or almost rectangular. It is important to note that there is no chronological development from one shape to another. Some urns have socles, columns, windows or doors. The steepness as well and the shape of the roofs indicate that the roofs were thatched. Most hut urns have a hipped roof, a few, however, may have had two-faced roofs. Approximately 40% of the urns have a plastic decoration on the roof, consisting of "horns"/volutes and animals. This decoration must reflect the decoration of the real huts, i.e. a decoration carved out of the cross pieces of the roof. All hut urns must represent domestic buildings.

A few other models and depictions of Early Iron Age buildings exist: the stele from Bologna (dated to the mid-8th century B.C.) (cat. no. 65)(*Fig. A60*) with its two faced roof and the incised lines in the gable that may indicate the woodwork construction; the stelae with finials in the shape of hipped roofs exist (cat. nos. 57-58)(*Figs. A54-A55*); the so-called capstones (*Fig. 21*) which possibly also represent hipped roofs. These date from the later part of the Early Iron Age to the Early Orientalizing period.

Only two votive models can be dated to this period, namely the one from Sala Consilina (cat. no. 73)(*Fig. A67*), dated to the early 8th century B.C., and the one from Satricum (cat. no. 74)(*Fig. A68*),



dated to the late 8th century B.C. Both these models depict rectangular buildings; the model from Sala Consilina with a two-faced roof, while the roof on the Satricum model is hipped. Whether these represent huts or houses cannot be determined.

The "modern" huts in Italy also add to our knowledge of these early huts, especially in terms of wall and roof construction (*Figs. 24-26*). Unlike the contemporary models many "modern" huts have conical roofs, which are very steep. Others have less steep hipped roofs.

The few preserved Roman reliefs with huts are too schematical to add much about hut construction.

From the 7th century B.C. we have a number of models that most likely represent houses with thatched roofs. They are all rectangular and longer than they are wider with a two-faced roof. The largest group consists of funerary urns from the 7th century B.C. These fall in two groups: a group of bronze (or a combination of bronze and wood) urns from the first half of the 7th century B.C. (cat. nos. 1-4)(*Figs. A1-A2*) and a larger group of urns from Cerveteri, dated to the second half of the 7th century B.C. (cat. no. 5-13)(*Figs. A3-A11*). The inclination of the roof varies from 60° to 28°, thus they all must depict thatched roofs. The decoration on the roofs mostly consists of volute or "horns", but also animals, cut out of the end of the cross pieces, similar to the decoration on the Early Iron Age hut urns.

Huts or houses with two-faced roofs are also depicted on the Verucchio throne, dated to the mid-7th century B.C. (cat. no. 86)(*Fig. A80*).

Our main evidence for the interior of the buildings as well as for the woodwork of the roof construction comes from the house tombs, especially from Cerveteri. Regarding the doors there are two types of doors: inner doors and outer doors/dromos doors (*Fig. 76*). In the earliest tombs of type B, the arch-shaped door is used on all outer doors. The doors are fairly wide. In type B<sub>2</sub> all inner doors are rectangular, wider at the bottom.

All tombs clearly indicate thatched roofs. The earliest can be seen in Prayon's type B<sub>1</sub>, probably to be dated in the first quarter of the 7th century B.C. (e.g. Tomba della Capanna 11). The earliest representation of a hipped roof in a tomb is seen in Tomba delle Anatre at Veii, also belonging to Prayon's type B<sub>1</sub> (*Fig. B50*). Hipped roofs are also known in tombs at Cerveteri, belonging to Prayon's type B<sub>2</sub>, probably to be dated to the second and third quarter of the 7th century B.C. (one of the earliest is T. delle Nave 1 (*Fig. 51*)). In Cerveteri the broad ridge beam ends in a disc, from which the rafters emerge. These rafters are often connected by circular "purlins", concentric to the disc. Only the front part of the roof, i.e. the part that can be seen from the door, imitates the woodwork of the roof - the remaining part of the roof is only sketched in a way to make the spectator believe that the entire

roof was cut out of the tufa, from the point where he was standing (*Fig. 54*).<sup>309</sup> Hipped roofs are not seen in tombs after period B<sub>2</sub>.

#### EVIDENCE FROM THE ARCHAIC PERIOD - HOUSES WITH TILED ROOFS

All the Archaic models (both funerary and votive) show rectangular houses. Most houses are longer than wide (often approximately twice as long as they are wide). All the 6th and early 5th centuries B.C. models must represent a two-faced tiled roof, since both cover tiles, pan tiles and ridgepole tiles are often clearly rendered. The inclination of the roofs is mostly around 20°. Several Archaic models attest to a specific Etruscan roof construction with a recessed gable, i.e. an extra sloping "fall" in the gable, such as the roof now in Palermo, Museo Archaeologico (cat. no. 28)(*Fig. A27*). This type of gable probably developed from the hipped roofs of the Early Iron Age.

The decoration on the roofs shows a variety of architectural terracottas, such as akroteria, antepagmenta, antefixes, simas, and friezes.

Tombs in the shape of buildings are especially important. Of the tombs representing the exterior of buildings, the most important evidence comes from house tombs with a two-faced roof. These show what an Etruscan house would have looked like from the outside, especially the tombs from Tuscania, and in particular the one from Pian di Mola with its porch and "architectural terracottas", and the *aedicula* tombs, such as T. del Bronzetto di Offerente, also with an architectural decoration on the roof.

The tombs representing the interior of buildings show a number of characteristics (for the earlier tombs see above). Regarding the ground-plan type C has only one room (*Figs. 46-47*). In Cerveteri there is often a circular (type C<sub>1</sub>) or rectangular (C<sub>2</sub>) anteroom. A fundamental change in the ground-plan occurs in type D: while the tombs of the previous types were long and narrow, the tombs of type D-F are short and broad. Behind the broad central chamber are three rooms (type D<sub>1</sub>) or a single room (type D<sub>2</sub>). This three-room type develops into type E with two rooms behind the central room. In type F is only used one room behind the central chamber (type F<sub>1</sub>) or none (type F<sub>2</sub>).

Columns are used in a few tombs (T. 56-dei Capitelli (type D<sub>1</sub>) and T. delle Colonne Doriche (type F<sub>2</sub>)). Pillars are also seen in a few tombs such as in T. Bianca (type D) (two pillars with "cavetto-capital"),<sup>310</sup> and single pillars are seen in the centre of rooms of type F tombs.<sup>311</sup>

Two types of doors are used: inner doors and outer doors/dromos doors. In type C the doors are narrower than in the earlier tombs and have a horizontal upper end and a semi-circular panel above (the *Lünetten*-type). In C<sub>2</sub> one example of a rectangular inner *porta Dorica* is known. The *Lünetten*-type continues in type D. A few simple rectangular doors are also known. These rectangular doors continue in type E and F. Regarding inner doors the rectangular door continues in type C<sub>1</sub>, while the inner doors of type C<sub>2</sub> are of the *Lünetten*-shape. In type D the doors are of the *porta Dorica* type. In

<sup>309</sup> Prayon 1975, 94-95.

<sup>310</sup> Prayon 1975, Abb. 6.

<sup>311</sup> Prayon 1975, Taf. 27,1.

the rear room of T. della Ripa,<sup>312</sup> however, can be seen a false door of the *Lünetten* type with four panels. The rectangular *porta Dorica* of type D continues in type E and F<sub>1</sub>, though with a slightly different Doric frame.

Windows first occur in type C<sub>2</sub>, all of the *Lünetten*-type. In the older tombs of type D this type continues. In the younger tombs of type D rectangular windows are used. There are no windows in type D<sub>2</sub>. The windows of type E and F<sub>1</sub> are of the *porta Dorica* type. The windows could also be painted.

In type B tombs the underside of the roof was seen. It is important to note that specific ceilings were not used before type C. The shape of the ceiling changes within the different types. In the later tombs the ceiling is either two-faced and low-pitched or flat, both types with a ridge beam. In a few cases the ridge beam is in a transverse position. Mostly these ceilings are undecorated, but some are coffered. Sometimes a coffered ceiling may only be fully rendered at the centre that was visible from the entrance, such as e.g. in the T. 56-dei Capitelli. Flat ceilings are only used for smaller rooms, such as in the vestibules of type C and D. These flat ceilings are coffered or have broad flat beams (the former mostly in type and D). Traces of paint on these roofs suggest that most - or all - were originally painted.

From the tombs with painted architectural details we get information on especially doors, columns/pilastre, ceilings, and the woodwork of the roof and the gable. These tombs also show that the interior of the houses must have been painted in a variety of colours, though it is uncertain to what extent these painted decorations reflect the painted decoration of the "real" buildings.

Thus all in all the large number of models and depictions of buildings as well as tombs in the shape of buildings, dating from the Early Iron Age to the Late Archaic period in Central Italy gives a fairly good picture of what such early buildings must have looked like and how they were constructed, especially regarding roof construction. Most of the models and all of the tombs must represent domestic buildings. Only for the votive models (with the exception of the one from Sala Consilina (cat. no. 73)(*Fig. A67*) is a temple identification possible, especially for the two models from Veii, Portonaccio and Chiusi (cat. nos. 82 and 84)(*Fig. A76 and A78*).

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<sup>312</sup> For references see above.

## CHAPTER 4

### BUILDING TECHNIQUES

Unfortunately, not much has been written on Etruscan building technique in the Archaic period.<sup>313</sup> The following is an attempt to discuss the evidence we possess, based mainly on the archaeological remains of buildings, but also to a large extent on the secondary evidence, especially for the roof construction.

#### BUILDING MATERIALS

All types of building material seem to have been available in Central Italy. With the exception of marble, which was not used before the 1st century B.C., all the different types of material seem to have been used: clay for wattle and daub, mudbricks, *pisé* walls, and tiles, different types of stone for foundations walls and walls, mostly tufa, but also sandstone, pebbles etc.<sup>314</sup> Wood must have been abundant in Central Italy in the Archaic period.<sup>315</sup> Several ancient authors mention the abundance of fine timber in Central Italy suitable for building purposes.<sup>316</sup> Oak, especially the winter oak, *quercus aesculus*, was used for timber, though beech may also have been used to some extent.<sup>317</sup> While both oak and beech are hard, oak has the advantage of being less likely to break under strain because of longer fibres.<sup>318</sup> Unfortunately not much wood is preserved and even less analysis made.

#### GROUND PLANS<sup>319</sup>

##### HUTS

The ground-plan of huts can be determined both from preserved remains of huts,<sup>320</sup> the hut urns, and the so-called modern huts. Three ground-plans are known: circular, oval and rectangular (*Fig. 88*).

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<sup>313</sup> Building technique is mostly discussed in relation to (later) Roman architecture. For early Roman architecture see Cifani 1995. Otherwise especially roof construction is discussed, especially the studies by Ö. Wikander on tiled roofs, and the many studies on architectural terracottas. In his works as well as in works by other scholars new approaches are put forwards, especially discussion of the weight and manufacturing of a tiled roof. Regarding woodwork structure of the roofs Hodge 1960 (though on Greek roofs) was the standard reference work for years. For a recent attempt to study especially the woodwork structure of the Etruscan buildings see Macintosh Turfa & Steinmayer 1996.

<sup>314</sup> For a discussion of the different types of stones used in Rome see Cifani 1995, 197-203.

<sup>315</sup> For wood as building material see R. Meiggs, *Trees and timber in the ancient Mediterranean world*, Oxford 1982, esp. 218-223.

<sup>316</sup> Strabo 5.2.4; Polyb. 5.5.222; Vitruv. 2.10.2; Dion. Hal. *Ant. Rom.* 1.37.4.

<sup>317</sup> Vitruv. 2.9-10 discusses the different kind of trees and their use in architecture.

<sup>318</sup> K. Fagerström, *Greek Iron Age architecture*, *SIMA* 81, 1988, 103.

<sup>319</sup> Regarding orientation of buildings see chapter 5.

<sup>320</sup> For these in general see Negroni Catacchio & Domanico 1986.

Circular ground-plans are rare in Etruria, and are primarily found in Veii close to Latium. They are also known from Bologna. Several more are known from Latium, but it is uncertain if they were all used for habitation, since most are very small. Rectangular and oval ground-plans are known from both Latium and Etruria.<sup>321</sup>

It is possible that in some centres there was a preference for a specific ground-plan, such as oval ground-plans at San Giovenale. At Satricum, on the other hand, both circular, oval, and rectangular huts have been found, all dated to the 8th and the 7th centuries B.C.<sup>322</sup> Maaskant-Kleibrink has suggested that the small circular huts in Satricum were cooking sheds.<sup>323</sup> Thus a difference in function - as also suggested by Linington<sup>324</sup> - is a possibility.

The same three types of ground-plans are also used for the so-called modern huts (see chapter 3).

Regarding hut urns we saw in chapter 3 that 3/4 of the hut urns are circular in shape, though oval and rectangular urns are known to a lesser extent. Thus, there is a discrepancy regarding ground-plan between the hut urns and the preserved remains of huts from the Early Iron Age. Regarding the development of the shape of the ground-plan it is clear both from the hut urns and the remains of real huts that there does not seem to be a chronological development from circular to oval to rectangular huts, as has previously been thought.<sup>325</sup>

#### HOUSES WITH THATCHED ROOFS

Both house urns and the archaeological remains of early houses point to all huts/houses as rectangular, and often twice as long as they are wide.

#### BUILDINGS WITH TILED ROOFS

Except for a few buildings only rectangular ground-plans are known. This can be inferred both from remains of buildings, models, and tombs in the shape of buildings.<sup>326</sup> There are a few exceptions: in Ficana, zone 6a, is the badly preserved Building F, dated to the late 7th century B.C. (*Fig. B273*). The excavators claim that this building was tiled, but this is impossible to verify from the preliminary excavation reports. Melis and Rathje have suggested that Building F had a hipped tiled roof, but such a roof construction is hardly possible on an oval building.<sup>327</sup> If the roof was tiled, it must have been two-faced. Another possibility is that the tiles belonged to another building in the vicinity and the roof was thatched or the walls could have been part of an enclosure or open building. The old excavations at

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<sup>321</sup> For ground-plans of huts see Negrone Catacchio & Domanico 1986, 515-585.

<sup>322</sup> Maaskant-Kleibrink 1991, 69.

<sup>323</sup> Maaskant-Kleibrink 1991, 71-72.

<sup>324</sup> Linington 1982, 117.

<sup>325</sup> E.g. Colonna 1986, 390.

<sup>326</sup> The circular rooms or anterooms of the Caeretan tombs do not seem to imitate actual rooms. It has been suggested that their importance is religious (Prayon 1975, 91-92).

<sup>327</sup> Melis & Rathje 1984, 393-394.

Antemnae by Lanciani and Borsari reported finds of circular ground-plans, but no traces of such buildings have been found in later excavations.<sup>328</sup> Melis and Rathje further suggest that oval buildings were an intermediary stage between the oval/circular huts and the rectangular tiled houses,<sup>329</sup> but the evidence from the buildings and models of the first half of the 7th century B.C. clearly show that the transition from circular/oval to rectangular buildings had already taken place before the tiled roof was introduced.

A few later examples are also known: the apsidal building near the bridge at San Giovenale, dated to the early 5th century B.C. (*Fig. B172*). An apsidal wall is also seen in building B in Tarquinia, but the dating of this is uncertain (*Fig. B198*). The dating of the semi-circular structure in Tarquinia near the western end is also uncertain (*Fig. B174, no. 2*).

The oval building at Vigna Parrocchiale at Cerveteri was probably not roofed (*Figs. B32-33*).

It is possible that some Etruscan buildings had more than one storey.<sup>330</sup> In the Lower Building at Murlo pithoi were found within the building which suggest a storage room. It is thus natural to assume that people lived on an upper floor. For the Upper Building a second storey has also been proposed. Since no oblique tiles were found, the roof of the wings could not have met at the corners, thus two of the wings opposite each other had to be higher and thus probably two storeys.

The large Archaic *insulae* found on the slope of the Palatine in Rome has been reconstructed with two floors, but no substantial evidence for such a reconstruction has been put forward. Gjerstad's reconstruction of the house on the Via Sacra in Rome with two storeys seems to be based on dubious archaeological evidence.

Another suggestion is that house tombs with plain flat ceiling may represent the floor of a second storey.<sup>331</sup> It is also tempting to see the tombs with a loggia above as indicators of two floors, but so far no excavated building can be reconstructed in this way.

It is possible that the Velletri votive model (cat. no. 80) (*Fig. A74*) with its rear platform with two rooms beneath may represent a building of two storeys.

The presence of two storeys has also been deducted from Vitruvius.<sup>332</sup> In chapter 6.3 he describes the plan of the (Roman) houses, and in 6.3.2 the displuviate courtyards (*displuviata*), that is with a *compluvium* and an "extra roof" above. He continues: *Testudinata vero ibi fiunt, ubi non sunt impetus magni et in contignationibus supra spatiosae redduntur habitiones* ("Vaulted courtyards are employed

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<sup>328</sup> Melis & Rathje 1984, 386-387 (with further references). The other examples cited by Melis & Rathje are equally uncertain: the first phase of the house on the Via Sacra in Rome (see the appendix) and the circular structure in Lavinium (see the appendix).

<sup>329</sup> Melis & Rathje 1984, 394.

<sup>330</sup> For a discussion of this see Staccioli 1970.

<sup>331</sup> Colonna 1986, 428-429; Naso 1996, 327. Naso also mentions other possibilities ... *un solaio (o un) sostegno per una terrazza* ...

<sup>332</sup> E.g. discussed by Colonna 1986, 428-429.

when the span is not great, and they furnish roomy apartments in the storey above".) This evidence can hardly be used to suggest that Archaic Etruscan buildings had two storeys.

In a few buildings we have evidence for cellars: in San Giovenale, Borgo, House E a *cantina* was found cut into the bedrock with large dolia. In Veii, Piazza d'Armi a subterranean room was excavated in trench 4 (*Fig. B208*). In Casal Brunori cavities were found under the floor levels which must have been used for storage. In Satricum in the courtyard buildings were small cellar-like rooms with storage jars, either dug or cut out below the floor level (dated to 580-560 B.C.).<sup>333</sup> Such cellars suggest wooden floors above.

Several buildings at Acquarossa (e.g. zone G, Building B, *Fig. B20*) have small extensions/recesses attached. These probably functioned as storage area. Smaller ones (cupboards) are also known at Acquarossa and perhaps also at Roselle, *Casa dell'Impluvium*, room VIII (*Fig. B149, no. 39*).

## SIZE AND NUMBER OF ROOMS

### HUTS

The size of the huts varies according to shape, location, function, and status. Huts in general are much larger in Lavinium than e.g. in Satricum and Rome.<sup>334</sup> Circular huts are mostly small, e.g. Satricum (mostly c. 2.0-2.5 x 2.5-3.0 m),<sup>335</sup> but can be as large as c. 6 m in diam. in Lavinium (hut A and G) and hut V in Ardea (10 m). The oval huts are larger, most of them with a length varying from c. 5 to 16 m and a width from c. 4 to 9 m. One of the largest is Tarquinia, Monterozzi hut 13, measuring 8.60 x 16.20 m. Regarding the rectangular huts they vary from 4 m to 10 m in length and 3 to 7 m in width. Some of these large huts may also be divided into two rooms by a partition wall - so far this is only documented for the larger oval huts from San Giovenale (*Fig. 89*) and Monterozzi (*Fig. 2*).

### HOUSES WITH THATCHED ROOFS

The number of rooms in early houses is uncertain, since we only have slight evidence of partition walls (see below). Most buildings probably only had one room, in a few cases two rooms.

### BUILDINGS WITH TILED ROOFS

The size of buildings varies considerably. The number of rooms varies from simple one room buildings to large complexes.

Several buildings are divided into a number of rooms, while others only have one room. Besides a few large buildings with many rooms such as the Upper Buildings at Murlo, there is a tendency to

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<sup>333</sup> A similar type of storage room is documented from Baggiovera (L. Malnati, 'Lo scavo di una fattoria etrusca a Baggiovera', *Modena dalle origini all'anno Mille*, Milan 1989, 262).

<sup>334</sup> For ground-plans of huts in general see Negroni Catacchio & Domanico 1986.

<sup>335</sup> Maaskant-Klaibrink 1991, 72.

small and simple constructions in the early period (i.e. down to the mid-6th century B.C.). In the second half of the 6th century and in the early 5th century more large building complexes are known (for this see further the individual building types in chapter 5).

Because of the larger size they become much more complicated to build, not only in techniques but also in the amount of material (clay for tiles, wood for firing the tiles and for the roof construction and sometimes also timber construction in the walls - for this see below).

All models seem to represent fairly small buildings. All have only one room, except for the votive model from Velletri (cat. no. 80) (*Fig. A74*), dated to the Late Archaic period.

Also the size of tombs varies, but it is uncertain to what extent this mirrors the size of the domestic buildings

### **ENTRANCE PORCHES AND PORTICOS**<sup>336</sup>

#### **HUTS AND HOUSES WITH THATCHED ROOFS**

Both real huts and hut urns (*Fig. 11* and *Fig. 90,2*) suggest that some of the huts must have had a small porch at the entrance. On real huts this can be seen from two or four postholes. This is primarily known from Latium (Rome (Regia), Ardea, Lavinium). In Etruria it can be seen in the late hut (the first half of the 6th century B.C.) in Veii, the NW-gate (*Holzbau*) (*Fig. B219 and B221*) and in the earliest phase of House I at the acropolis of San Giovenale (whether we should consider this a hut or a house), dated to 675-650 B.C. (*Fig. B162-163*). In this case, however, the porch may perhaps more correctly be called an anteroom.

#### **BUILDINGS WITH TILED ROOFS**

Entrance porches are known on several buildings, especially large monumental buildings/temples such as Pyrgi Building B (*Fig. B120*) or Orvieto Belvedere (*Fig. B99*). These were supported by posts and columns (see below).

On more simple structures they could either be a small porch, such as Gravisca, phase 1, dated to 580 B.C.) (*Fig. B53*), San Giovenale, the acropolis, House I, phase II, dated to c. 600 B.C. (*Figs. B164 and B166*). A similar kind of porch has been suggested for Satricum *oikos* H, dated to the early 6th century B.C. (only attested through the Corinthian combination tiles) (*Fig. B336 and Figs. B341-B342*). In some cases such a porch may have been only a roof above the entrance such as San Giovenale, House A (*Fig. B3,7*). These roofs were probably separate shed roofs, though a continuation of the fall (or the gable) cannot be excluded. Such porches are also seen on larger structures such as Roselle, *Casa dell'Impluvium*, dated to the second half of the 6th century B.C. (*Fig. B149-152*) and perhaps also on *Casa C*, dated to the late 7th/early 6th centuries B.C. (*Fig. B148*). In the case of the houses at L'Ago

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<sup>336</sup> Bartoloni, Beijer & De Santis 1985, 188.



dell'Accesa the stretch of wall outside the houses may have been either a portico or just a wall to protect the entrance from floods (*Figs. B59 and B70*).

In other cases an entire portico flanked a building with rooms in a row: Acquarossa (e.g. zone B, Building A) (*Fig. B3, 17*), Podere Tartuchino, phase I, dated to the second half of the 6th century B.C. (*Figs. B104-B105*), Pyrgi, a building in the settlement area (no plans have yet been published), dated to the first half of the 6th century B.C., San Giovenale, the Borgo, House G (*Fig. B3, 11*), Ficana, zone 5a, the second phase, dated to the late 7th/early 6th centuries B.C. (*Fig. B271*), Lavinium, the building near the 13 altars (in this case both on the southern and western side) (*Figs. B289-B291*).

Porticos could also be situated along one or more sides of the building towards a small courtyard: Tarquinia, Building B, phase 1 (though the date is uncertain) (*Fig. B198*), Acqua Acetosa Laurentina, dated to the second half of the 6th to the early 5th centuries B.C. (*Fig. B247*), Torrino, dated to the Late Archaic period (*Fig. B354*). In both these cases the roof of the portico could either be a continuation of the fall of the roof or a separate shed roof.

In the case of courtyard houses/"palazzi" there was often a portico around the courtyard such as in Acquarossa, zone F, Building A-C, dated to 550 B.C. (*Figs. B12 and B16-B18*), Acquarossa the complex beneath Building A-C, dated to c. 600 B.C. (*Fig. B14*), Castelnuovo Berardegna, dated to the early 6th century B.C. (*Fig. B29*), Murlo, the Upper Building (at least on three sides), dated to the early 6th century B.C. (*Figs. B92 and B94-B95*) and possibly also along the Lower Building complex, dated to 640/630 B.C. (*Fig. B92*), Roselle, *Casa del Recinto* (on the outside), dated to the second quarter of 7th century B.C., the two complexes in Lavinium, Vigna Nuova, dated to the late 7th and the first half of the 6th centuries B.C. (*Figs. B285-B286*); Rome the Regia (*Figs. B309-B313*), Satricum, courtyard Building A and B, dated to 580-560 B.C. (*Figs. B341-342*) and Building C, dated to 530-520 B.C. (though in this case it is uncertain if the building had porticos (*Fig. B344-345*).

The complex structure of Gravisca, phase I, dated to 510 B.C., also had a portico towards the courtyard (*Fig. B55*) and the other complex structure, Building Beta at Tarquinia, Pian di Civita, probably had a portico towards the east in the Late Archaic period (*Figs. B190-B191*).

Mambella has suggested that since there are windows in tombs the anteroom or vestibule represent porches, which is an interesting possibility.<sup>337</sup>

Only in a few cases do we know of freestanding porticos, namely the two in Veii, Portonaccio (G and H) (*Fig. B225*). Though they are dated to the second half of the 5th century, they may have had predecessors. The so-called stoai in Satricum, although they were open only in the centre, should also be considered porticos (*Figs. B344-345*). They are dated to 530-520 B.C.

Around the sanctuary of the northwest area in Satricum was a portico, but the dating of this is uncertain (*Fig. B350*).

A specific kind of portico is the South-East Building at Murlo with no walls, only supported by columns, dated to 640-630 B.C. (*Fig. B88*).

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<sup>337</sup> Mambella 1982, 40.

## POSTS

In most huts postholes, cut out in the tufa, are preserved. Besides the ones used in the walls (see below), postholes are found inside the huts. Such posts were used to support the ridge. If the hut was oval, the posts could be situated in either two parallel lines of four holes (*Fig. 2, 7*) or six holes (*Fig. 2, 13*) or a line along the longitudinal axis of the hut (*Fig. 89*). In the case of rectangular huts the posts were situated in a line along the longitudinal axis of the hut (*Fig. 2, 33*) or three posts (*Fig. 2, 14*). A central post could support the roof of smaller huts, such as on the square hut on the Palatine (*Fig. 88, e and Fig. 90, 2*). The postholes outside the huts are usually smaller than the ones on the inside and must have been used to support the walls, possibly also the overhang of the roof.

The upper parts of the posts were probably forked, judging from Vitruvius 2.1.2-3 (*Primumque furcis erectis et virgulis interpositis luto parietes texerunt* ("And first, with upright forked props and twigs put between, they wove their walls")).

On one hut urn posts with a carved decoration is seen, supporting a porch (*Fig. 11*).

In the building/semi-subterranean room on the acropolis of San Giovenale, dated to the last third of the 8th century B.C., a number of postholes around the "room" may have been used for some kind of cover/thatched roof (*Fig. B168*).

In Satricum, Building AA, dated to the second half of the 7th century B.C., a series of posts holes were found along one of the long walls (*Fig. B335*).

Posts are still used in the Archaic period. They could be used as:

1. a central support for the roof (or in a few cases more than one): Acquarossa zone F, the early building beneath Building A-C (*Figs. B13-B14*), L'Ago dell'Accesa, area A, Structure IV, room II (or a hearth), Luni sul Mignone, House B (central post 60 cm in diam.), dated to 500-475 B.C. (*Fig. B71*), Podere Tartuccino, phase I (?), dated to the second half of the 6th century B.C. (*Figs. B104-B105*) and phase II (several supports), dated to the first half of the 5th century B.C. (*Figs. B106-B108*), Satricum, Stoa A', dated to 530-520 B.C. (at the centre of the small square room was found a tufa base with a 24 cm deep square posthole (30 x 30 cm) (*Fig. B344*).
2. support for a portico or porch: Acquarossa (several examples such as zone F, the early building beneath Building A-C (portico), dated to 600 B.C. (*Figs. B13-B14*), Castelnuovo Berardenga (courtyard with porticos supported by posts), dated to the early 6th century B.C. (*Fig. B29*), Marzabotto, regia II,1 (portico), dated to 500-475 B.C., Murlo, the Upper Building, dated to the early 6th century B.C. (*Fig. B94-B95*), Podere Tartuccino, phase I, dated to the second half of the 6th century B.C. (*Figs. B104-B105*), Roselle, *Casa dell'Impluvium*, dated to the second half of the 6th century B.C. (*Figs. B149-B151*) and possibly also *Casa C*, dated to the late 7th/early 6th century B.C. (*Fig. B148*), S. Giovenale, the acropolis House I, phase 1, dated 675-650 B.C. (*Figs. B162-B163*), Tarquinia, Pian di Civita, Building Beta, a portico on the eastern side (?), the phase dated to the Late Archaic period (*Figs. B190-B191*), Lavinium, Vigna Nuova, the two courtyard houses with porticos supported by wooden posts around a courtyard, dated to the late 7th-early 6th centuries B.C. (*Figs.*

B285-B286), Torrino (three posts supported the porticos towards the courtyard), dated to the Late Archaic period (Fig. B354).

3. Posts supporting a *compluvium* above the *impluvium*. This is only attested from Roselle, *Casa dell'Impluvium*, dated to the second half of the 6th century B.C. (Figs. B149-B151), but similar supports (or columns) must have been used in Marzabotto and perhaps also in Rome, the houses on the slope of the Palatine.

4. Small sheds (Acquarossa, zone D, Building A (Fig. B10)).

5. Posts to reinforce walls, such as Murlo, the Upper Building, dated to the early 6th century B.C. (Figs. B94-B95) and Veii, Piazza d'Armi (on the right wall several blocks next to each other showed cuts on the inside probably for 3 x 3 posts, rectangular in section), dated to the early 6th century B.C. (or possibly reinforcement of the roof) (Fig. B211). In Satricum wattle and daub walls in some cases were constructed with posts on the outside of the foundations (the wing of the courtyard Building A had a series of small postholes flanking the wall).

## COLUMNS

Columns are only used on buildings with tiled roofs. Several examples of columns are found in excavations as well as in tombs (Fig. 91).

While columns in tombs are always entirely in stone, "real" columns usually have shafts of wood. Such shafts need protection from the weather at the base, and most columns are thus set on a stone base. The capitals were usually also made of stone. In some cases the entire wooden column/or part of the column is encased in terracotta. It should be noted that both shafts and capitals vary considerably.

In some cases a base of a Chiusine rectangular cippus with a head of a ram at each end was reused as a capital, such as the Late Archaic one from the Guglielmi collection.<sup>338</sup> Similar marble bases are known from Pisa, also dated to the Late Archaic period, as well as from Volterra and Marzabotto.<sup>339</sup>

In a few cases we do not know which type of columns was used since only flat stone bases have been preserved (such as at Murlo, the South-East Building, dated to 640-630 B.C. (Figs. B88-B89), Acqua Acetosa Laurentina, dated to 550-480 B.C. (Fig. B247) or Ficana zone 4, dated to late 7th/early 6th centuries B.C. (Fig. B270).

Almost all columns were of the so-called Tuscan style (*tuscanicus*, based on Vitruvius 4.7.2-3).<sup>340</sup> The shafts are circular in section and usually have an unfluted shaft, tapering towards the top.<sup>341</sup> The capitals consist of an *abacus* and an *echinus*, and there is often a *Blattkehle* (from the last quarter of

<sup>338</sup> F. Buranelli, *La raccolta Giacinto Guglielmi*, Mostra Palazzi Apostolici Vaticani, Stanze di San Pio V, 23. Maggio - 29 Luglio 1989, Rome 1989, 33-34, fig. 29.

<sup>339</sup> G. Ciampoltrini, 'Segnalico funerari tardo arcaico di Pisa', *StEtr* 49, 1981, 31-39 (with further references).

<sup>340</sup> For Tuscan columns see Polacco 1952, esp. 55-68; Boëthius 1962; Shoe Merrit 1965, 115-125 (bases) and 126-137 (capitals); Prayon 1975, 43-44; W. Alzinger, 'Tuscanicae dispositiones und griechische Tektonik', *Pro Arte Antiqua, Festschrift H. Kenner*, Wien 1982, 24-27; Prayon 1984; Naso 1996, 396-402.

<sup>341</sup> Entasis are rarely seen (e.g. T. della Pulcella in Tarquinia, dated to the mid-5th century B.C.).

the 6th century B.C.). The *abacus* is square and the *echinus* circular with a quarter round profile.<sup>342</sup> The base is similar, just inverted (in fact it is sometimes difficult to determine whether it is a base or a capital).

Several Tuscan columns are known, though often badly preserved: Acquarossa, zone F (stone capitals and bases for a portico and in one the door opening - a square hole in both *abacus* and *echinus* suggest a wooden core - diam. of shaft 55 cm), dated to c. 550 B.C. (*Fig. B15*), Cerveteri, Vigna Parrocchiale, in the *scarico* (diam. of base 90-108 cm, diam. of shaft 58-79 cm. An incised line suggests the level of the foundation (20 cm) and possibly also where plaster was attached), dated to the second half of the 6th century B.C. (*Fig. B34*), Cerveteri, Località S. Antonio, Cerveteri (similar to the ones from Veii, Portonaccio), Valle Zucchara (*peperino* base), possibly Archaic, Civita Castellana, Sassi Caduti (column base, though of uncertain date), Gravisca (without context - the *abacus* is circular and painted white and the *echinus* has a *kyma* in white. The diam. has been reconstructed to 48 cm), dated to the Archaic period, Marzabotto (decorated terracotta columns, though without any specific location), dated to 500-475 B.C., Orvieto, Belvedere (columns supporting a porch, diam. 0.88-1.00 m, the columns covered with plaster painted red and white), dated to 500-475 B.C., Orvieto, San Giovanni (a travertine column and a Doric capital of unknown date), Orvieto, Cannicella (a fragment of a possible terracotta capital, dated to the early 5th century B.C., Pyrgi Building B and A (columns supporting a porch, of similar types found for both buildings - lower diam. c. 1 m), dated from 510-470 B.C. (*Fig. B129*), Pyrgi, the settlement area, two column bases in *peperino*, possibly from a portico, dated to the first half of the 6th century B.C., Roselle, the building in square E 10-11 (columns reused elsewhere may originate from this building), San Giovenale, the acropolis, House I, phase II (stone column base in the centre of the room and in the porch), dated to c. 600 B.C. (*Figs. B164-B165*), Sasso di Furbara (a large *peperino* column base), dated to 525-500 B.C.; Tarquinia Building B (three *nenfro* bases for columns (diam. 0.75-1.00 m), which suggest a courtyard with a portico), belonging to phase 1, though the date is uncertain (*Fig. B198*), Veii, Portonaccio (stone capitals for columns supporting a porch), dated to 500 B.C. (*Fig. B228*), Vignanello (tufa column drums), of uncertain date, Vulci, Fontanile di Legnisina (two fragments of stone column shafts, diam. 50-60 cm), dated to the early 5th century B.C. (*Fig. B240*), Lavinium, found in near the 13 altars (tufa column bases of uncertain date), Rome, the Palatine, a terracotta capital, dated to the late 6th century B.C. (*Fig. B304*),<sup>343</sup> Rome, Velia (a fragment of a terracotta casting of a column) probably Archaic, Rome, S. Omobono, the Mater Matuta temple, (wooden columns encased in terracotta with fluted shaft and capital, supporting a porch), dated to 540-530 B.C. (*Fig. B327*).

The terracotta capital found at Antemnae is probably too small to have been a real column (diam. 41 cm), but perhaps a stand or a *base di donario*, dated to the early 5th century B.C. (*Fig. B252*).<sup>344</sup>

<sup>342</sup> For the different types see Shoe Merrit 1965, 126.

<sup>343</sup> The profile of this column resembles the ones from Veii, Portonaccio and Rome, S. Omobono.

<sup>344</sup> Naso 1996, 400 n. 659.

On several monumental buildings foundations for columns were found, though no traces of the actual columns were preserved. In case of large buildings with a heavy roof it is assumed that the columns were of stone.

The height of the columns is uncertain. In the case of the one from the Palatine the height has been estimated to 6 m and the height of the S. Omobono temple was 4.70 m (judging from the imprint in the profile). We know from literary sources that the height of the columns of the Capitoline temple was increased several times, thus a height of columns in the Archaic period between 4 and 6 m seem reasonable.

Columns are not very common in tombs. They are seen in e.g. Tuscania, Pian di Mola, where Tuscan bases were used for the porch of the tomb (*Figs. 32, 34-35, 37*), Cuccumella in Vulci - uncertain reconstruction, but the *abacus* is square (*Fig. 92*);<sup>345</sup> Vignarello;<sup>346</sup> Cerveteri, T. Giuseppe Moretti (*Fig. 91,2*).

Painted columns are also known in a few of the tombs in Tarquinia, such as T. delle Leonesse, dated to c. 520 B.C. (*Fig. 72*). These resemble the columns from S. Omobono and Veii, Portonaccio.<sup>347</sup>

On one of the Chiusine reliefs the cippus with the prothesis scene within a gabled building, dated to 480-470 B.C. (cat. no. 67) (*Fig. A62*) show a column with a Tuscan column with a plain shaft, a capital, and a base.

Columns are not attested on any of the Archaic votive models, with the exception of the discs on the underside of the votive model of unknown provenance (cat. no. 81) (*Fig. A75*). Separate columns, however, are known from Veii, the date of which is uncertain.<sup>348</sup>

A number of stands in the shape of columns are known from Archaic Etruria such as the one on the Murlo horserace frieze, dated to the early 6th century B.C., the Caeretan hydria in the National Museum in Copenhagen, and the painted slab from Cerveteri (now in the Louvre), dated to 530-520 B.C. (*Fig. 93*).<sup>349</sup>

In some cases it is debatable whether a column should be considered Tuscan or Doric. According to Shoe Merritt the quarter round profile of the capital and the presence of a moulded base is what

<sup>345</sup> Boëthius 1962, 251; Prayon 1984, 155-156 n. 37.

<sup>346</sup> Boëthius 1962, 45, fig. 23; Jannot 1974, 736.

<sup>347</sup> Naso 1996, 398.

<sup>348</sup> Staccioli 1968a, cat. no. 8 (two bases, plain shafts, a Tuscan capital); cat. no. 12 (plain shaft and base); cat. nos. 10 and 11 (plain shafts, Tuscan capitals); cat. no. 9 (plain shaft, Ionic base).

Models from the Classical and Hellenistic periods show Tuscan capitals, and in the Hellenistic period the Corinthian capital is introduced. In the Hellenistic period the bases became more elaborate.

<sup>349</sup> Colonna 1993b, 62, figs. 10-12.

distinguishes the Tuscan column from the Doric column.<sup>350</sup> Other scholars choose the fluted shaft to be indicative for a Doric column. The columns in Cerveteri, Tomba delle Colonne Doriche, type F<sub>2</sub>, the shafts of which are polygon (*Fig. 71*) are thus by some scholars (e.g. Shoe Merritt)<sup>351</sup> considered Tuscan and by others (such as Boëthius and Prayon) considered Doric. The tomb is dated to the late 6th century B.C. Similar columns are seen in the contemporary Tomba della Principessa Margrete di Danimarca.<sup>352</sup>

The origin of the Etruscan columns has been debated. They are by many scholars (especially Germans!) considered inspired from Greek architecture.<sup>353</sup> Shoe Merritt has pointed out, however, that there are no similarities in the profiles of the early Greek Doric columns and the Etruscan ones. In T. della Valle Capellana 1 are seen two columns with flutes and capitals, dated to c. 600 B.C. (*Fig. 94*).<sup>354</sup> Naso sees these as prototypes for the Etruscan columns. Because of the square base, Prayon considers these "proto-Doric columns". Vitruvius considered the Tuscan column indigenous.

Finally the Aeolic column should be discussed (Aeolic capitals placed on polygon shafts with circular bases).<sup>355</sup> These are only known from tombs. The earliest are normally considered the ones from Cerveteri, T. 56-dei Capitelli, type D<sub>1</sub>, dated to the first half of the 6th century B.C. (*Figs. 65-66*).<sup>356</sup> A similar capital is known from a tomb in Chiusi (of unknown context).<sup>357</sup> The single column (or cippus) on the "pietra Zannoni", dated to the late 7th century B.C. (cat. no. 66) (*Fig. A61*) may be considered a predecessor. It has a plain shaft, an "Aeolic" capital, while the base cannot be seen.

Columns with Aeolic capitals as well as Ionic columns become common in later chamber tombs, e.g. in Cerveteri and Sovana.

Half-columns are only known from a few tombs, such as the tomb in Castro, loc. Pianezze (*Fig. 87*) and from Tomba delle Leonesse at Tarquinia (*Figs. 72-73*). The latter was probably, however, intended to represent ordinary columns.

## PILLARS, PILASTRE, AND LESENE

<sup>350</sup> Shoe Merritt 1965, 115 and 126.

<sup>351</sup> Even if they have no bases. Shoe Merritt argues that they should be considered Tuscan and not Doric, because they bear no relation to contemporary or earlier Doric capitals (Shoe Merritt 1965, 128).

<sup>352</sup> Boëthius 1962, 251, 64, fig. 6.

<sup>353</sup> F. Prayon, 'L'architettura funeraria etrusca. La situazione attuale delle ricerche e problemi aperti', *Secondo congresso internazionale etrusco*, Firenze 1985, suppl. di *StEtr*, Rome 1989, 445. For further references see Naso 1996, 396.

<sup>354</sup> Prayon 1975, 67-68, Abb. 12. Taf. 85,40; Romanelli 1986, 26-27, fig. 12; Naso 1996, 396, fig. 225.

<sup>355</sup> For the Aeolic capital in general see Ciasca 1962. For the Aeolic capital in Greece see B. Wesenberg, *Kapitelle und Basen, Beihefte der Bonner Jahrbücher* 32, 1971, esp. 63-86.

<sup>356</sup> Ciasca 1962, 41-42, tav. X,2-XI,1; Prayon 1975, 97 (see also chapter 3).

<sup>357</sup> Ciasca 1962, 27, 40-41, no. 1, tav. X,1.

It should be remembered that it is often difficult to distinguish between columns, pillars, and posts. Our evidence for pillars, pilastre, and lesene all comes from tombs,<sup>358</sup> with a few exceptions: Castro (the three-room building cut out of the tufa rock) (a pillar in the central room), dated to the last quarter of the 6th century B.C. (*Fig. B29a-c*),<sup>359</sup> Regisvilla (on the exterior of the southern wall were extensions of the partition walls, probably serving as bases for pillars supporting the eaves), possibly dated to the second half of the 6th century B.C. (*Fig. B134*), and Acqua Acetosa Laurentina (in the corners and on either side of the entrances were used pilastre, up to 1 m in height), dated to 550-480 B.C. (*Fig. B247*).

In buildings where only flat bases have been preserved, pillars may have been used instead of columns (see above).

Pillars are common in Orientalizing tombs in northern Etruria, such as e.g. T. della Pietrera in Vetulonia.<sup>360</sup> These pillars support the roof of corbelled tombs, otherwise with no architectural feature resembling houses. They are also known in tombs resembling houses, e.g. from Cerveteri (T. Bianca) (*Fig. 95*); T. 323 (*Fig. 96*); T. dei due Pilastre,<sup>361</sup> T. dell'Alcova<sup>362</sup>); S. Giuliano (Chiuse Vallerani, T. Gabrielli,<sup>363</sup> Tumulo del Caiolo<sup>364</sup>). Most pillars are simple pillars, cut out of the tufa, but both pillars from the S. Giuliano tombs have rectangular plinths and taper towards the top, which is decorated with a "cavetto-capital". In S. Giovenale (Pozarago no. 6,<sup>365</sup> and necropoli di Ponton Paoletto<sup>366</sup>) the pillar is constructed of square blocks.

Pilastre are common in the Caeretan tombs and are often decorated with vertical incised lines, probably imitating flutes. The earliest are of tufa and are seen in tombs in Cerveteri, San Giuliano and Vulci in the Orientalizing period (*Orientalizzante Medio*). Several other examples are known, both from the Orientalizing and Archaic periods.

Pilastre often have neither bases nor capitals, and should thus be considered lesene. The oldest lesene in Etruria are seen in San Giuliano, T. Cima, dated to the third quarter of the 7th century B.C. (*Figs. 57-59*). They are painted red, and they gradually become thinner at the top. They have no capital. Lesene may also have been used in Vulci, T. del Sole e della Luna (now lost), dated to the same period.<sup>367</sup> They are also seen in Cerveteri, T. della Campana 1 (*Fig. 97*).

In general there is a tendency to pillars in the early tombs and pilastre/lesene in the later tombs.

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<sup>358</sup> Naso 1996, 394-396.

<sup>359</sup> See the appendix.

<sup>360</sup> Polacco 1952, tav. I,7.

<sup>361</sup> R. Mengarelli, 'L'Evoluzione delle forme architettoniche nelle tombe etrusche di Caere', *Atti del III convegno nazionale di storia dell'architettura*, Rome 9-13 ottobre 1983, Rome 1940, 10, tav. X, fig. 41.

<sup>362</sup> R. Mengarelli, 'L'Evoluzione delle forme architettoniche nelle tombe etrusche di Caere', *Atti del III convegno nazionale di storia dell'architettura*, Rome 9-13 ottobre 1983, Rome 1940, 10, tav. VIII, fig. 33.

<sup>363</sup> Prayon 1975, 67; Romanelli 1986, 34-35, fig. 16.

<sup>364</sup> Prayon 1975, 67, Taf. 74,2.

<sup>365</sup> E. Berggren & M. Moretti, 'San Giovenale (Blera)', *NSc* 1960, 22, fig. 20.

<sup>366</sup> Romanelli 1986, 35, tav. 12.

<sup>367</sup> For a further discussion of lesene see Naso 1996, 395-396.

## FOUNDATIONS

### HUTS

The huts were basically constructed with two types of foundations (*Fig. 88*): either foundation channels and postholes for posts to support the roof (e.g. Tarquinia, Monterozzi, and San Giovenale), or sunken floors (such as e.g. in Veii and Satricum).

Foundation channels were used to place the walls of the hut in. In a few cases there is another foundation channel around the first. This second perimeter could have been used either as an enclosure wall or - in the cases where the second foundation channel is very close to the first one - as support for the overhang of the roof. Another possibility is that these channels functioned as drainage, such as e.g. in the case of the Palatine hut in Rome.<sup>368</sup> It cannot, however, be excluded that when two foundation channels are present, we are actually dealing with two huts of different periods.

In the second case with the sunken floors - a technique probably taken over from the "long-houses" of the Bronze Age - the walls were placed within the perimeter of the sunken floor, and earth or stone walls without mortar piled on the outside to support the walls. This feature may also be seen on some of the hut urns (*Fig. 9*) (see also chapter 3). The same technique was also used in the Early Orientalizing tombs.

In a few cases we have evidence of hut foundations consisting of stones,<sup>369</sup> namely in the hut at Pian di Civita at Tarquinia, dated to the Late Bronze Age (*Fig. B175-B176*),<sup>370</sup> Torre Valdaliga near Civitavecchia, dated to the first half of the 8th century B.C.,<sup>371</sup> Torriónaccio,<sup>372</sup> Manciano, Località Scarceta, near Grosseto, dated to the Late Bronze Age,<sup>373</sup> Luni sul Mignone, dated to the Late Bronze Age or the early part of the Early Iron Age,<sup>374</sup> and possibly also in Castel di Decima.<sup>375</sup> All ground-plans are oval. As can be seen most of these dates to the Late Bronze Age or early part of the Early Iron Age.

At San Giovenale, the acropolis, House I, the first phase (*Fig. B162-B163*), shows a sunken floor, but at the same time stone foundations, thus a building type lying somewhere between a hut and a house.

### HOUSES WITH THATCHED ROOF

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<sup>368</sup> See e.g. E. de Albentis, *La casa dei romani*, Biblioteca di archeologia 13, Milan 1990, 18.

<sup>369</sup> For these in general see Negroni Catacchio & Domanico 1986, 565-569.

<sup>370</sup> See the appendix.

<sup>371</sup> Negroni Catacchio & Domanico 1986, 569, fig. 28. These are dated to the first half of the 8th century B.C.

<sup>372</sup> Negroni Catacchio & Domanico 1986, 565, fig. 26 (with further references).

<sup>373</sup> Negroni Catacchio & Domanico 1986, 565-566 (with further references).

<sup>374</sup> Negroni Catacchio & Domanico 1986, 566 (with further references).

<sup>375</sup> Guaitoli 1981d, 146.



Houses with thatched roofs had a stone foundation, often consisting of smaller, irregular stones. The only exception is some of the houses at Roselle, which apparently had no foundations, but mudbrick walls laid directly on the bedrock (though with cuttings to make the ground even).

In some cases fragments of tiles were inserted between the foundation stones such as phase I at Gravisca, dated to 580 B.C. (the foundations consisted of pebbles and fragments of tiles) and the building on the northern part of the acropolis at Castel di Decima. In the same building at Castel di Decima other foundation/wall techniques are seen: wall c was constructed with irregular *cappellaccio* stones and fragments with a series of tiles on either side, while wall d consisted of tufa slabs with clay in between and with a fill of *cappellaccio* fragments mixed with earth.

The size of the foundations naturally varies according to the size, the type of walls above (stone walls or lighter walls such as wattle and daub), and the nature of the building. On larger buildings there is a pronounced difference in width between exterior and interior walls. As an example can be mentioned the foundations of Pyrgi building A: the thickness of the perimeter foundation walls is 3 m, while the inner foundations are 2.40 and 1.80 m.

Foundation walls often also support (lines of) columns within buildings or in the porch, such as Pyrgi Building A and B (*Fig. B121*) and Marzabotto Structure C (*Fig. B74*) (see further above on columns). In other cases the foundations for the columns were constructed independently (such as at Belvedere in Orvieto (*Fig. B99*)).

Foundation walls were - in larger buildings - resting either on footings of clay or stone chips or bedrock. The cavities in between the foundation walls were often filled in with alternating layers of tufa chips and clay, the top layer of which could form the floor of the building (e.g. Pyrgi Building A and B).

At Montetosto the slope made it necessary to make the foundations much wider towards the south and the river, and thus creating a kind of terrace wall.

In a few cases the outline of the building/foundation can only be seen from "negative" structures, that is the imprint of the walls left in the tufa (e.g. Luni sul Mignone (*Fig. B71*)).

## PODIUMS AND MOULDINGS

Several podiums of actual buildings have been preserved such as Orvieto, Belvedere and Marzabotto, Building A and C on the acropolis. They are mostly dated to the Late Archaic period. For podiums see *Diagrams 9-10*. Podiums are rare on models, except for the votive models from Chiusi (cat. no. 84) (*Fig. A78*) and the low podium or basis on the model from Veii, Portonaccio (cat. no. 79) (*Fig. A73*). On the cippus from Tuscania, Pian di Mola (cat. no. 64) (*Fig. A59*) the building is placed on a podium consisting of a flat rectangular basis on top of which is a moulding.

Mouldings are only used rarely. A few buildings have exterior mouldings at the base of podiums. At Marzabotto, the acropolis, there was a moulding on Structure D (though probably an altar, not a building), dated to 500-475 B.C. At Orvieto, Belvedere, fragments of *nenfro* mouldings were found, suggesting that the podium was decorated with these (dated to 500-475 B.C.). At Pyrgi Building A

two fragments of tufa mouldings found suggest that the podium was decorated with such a moulding (dated to 490-480 B.C.). In Rome, S. Omobono mouldings are also seen (different mouldings for the two periods, 600-575 and 540/530 B.C.) (Figs. 324-325). Such mouldings are also known from a number of tombs, e.g. Tuscania (see chapter 3).

## OUTER WALLS

Several types of walls were used from the Early Iron Age to the end of the Archaic period. In most cases, where no remains of the superstructure of the walls have been preserved, the excavators assume that the walls were made either of wattle and daub or mudbrick. For unknown reasons *pisé* walls are rarely suggested.<sup>376</sup>

## CLAY WALLS

### Wattle and daub

Wattle and daub walls consisted of reeds or branches (wattle) woven in between thin posts, placed in holes cut into the perimeter of the hut. Clay was then added on either side (daub) mixed with leaves or straw. This wattle and daub system can be seen from the many examples of plaster with reed impressions, secondarily burnt, found during excavations. Wattle and daub walls were used on all huts, though a few late huts have *pisé* walls (see below). The technique is described by Vitruvius 2.8.20. Based on his terms wattle and daub is often referred to as *opus craticium*. Vitruvius 2.1.2-3 mentions that in early times man began to make huts of wattle and daub: *Primumque furcis erectis et virgulis interpositis luto parietes texerunt* ("And first, with upright forked props and twigs put between, they wove their walls"). Ovid, *Fasti* 6.262: *quae nunc aere vides, stipula cum tecta videres, et paries lento vimine textus erat* ("The building which now you see roofed with bronze you might then have seen roofed with thatch, and the walls were woven of tough osiers"). The famous hut of Romulus (*casa Romuli*) was according to several literary sources rebuilt over and over again in the same old primitive style on the Palatine.<sup>377</sup>

Wattle and daub walls were also common later on, both on houses with thatched and tiled roofs, though the wooden construction of the walls at least in some cases was different (see below). Wattle and daub is found at Acquarossa (especially in the early buildings), L'Ago dell'Accesa (especially in Area B), Roselle, *Casa C* (only upper part of the wall?), dated to the late 7th/early 6th centuries B.C.), San Giovenale, House I, phase 1, dated to 675-650 B.C., Veii, Piazza d'Armi (though it is uncertain which buildings/phases the plaster fragments belonged to - the so-called *oikos* had wattle and daub walls), Ficana (all houses seem to have had wattle and daub walls), Satricum (all walls seem to have been wattle and daub).

<sup>376</sup> Walls are discussed by Vitruvius 2.8.

<sup>377</sup> Dion. Hal. *Ant. Rom.* 1.79; Dio Cass. 48.43 and 54.29; Vitruvius 2.1.5; Conon, *Diegeseis* 48; *F.H.G.* I, p. 210; Sen. *Controv.* 2.1.5; Verg., *Aen.* 8.654. See also A. Boëthius, *The golden house of Nero*, Ann Arbor 1960, 15 n. 20.

As Vitruvius emphasizes (2.8.20) the problem with wattle and daub is that such walls easily burn - on the other hand they are easy and cheap to build.

### ***Pisé***

*Pisé* walls consisted of packed clay mixed with straw as a binder, pressed between a structure of boards until it was dry. At Murlo, the Upper Building, the *pisé* walls seem to have been made in layers.<sup>378</sup> Philips has suggested that fire was used to dry the walls so that they would not shrink (a layer of straw attached to the surface of the wall and then lighted).

The earliest example of the use of *pisé* walls is the recently discovered square hut in Fidenae, dated to the 8th century B.C.<sup>379</sup> The hut is almost square, measuring 6.20 x 5.20 m. The *pisé* walls were supported by vertical beams set in the wall line at intervals as well as an artificial bench of loose tufa rocks on two sides of the exterior. The overhang of the roof was supported by a portico, 1.5 m wide.

*Pisé* was probably used in many buildings though we only have little evidence preserved. *Pisé* is found at Luni sul Mignone, House B (a large lump of clay with a hole (c. diam 25 cm) was found, which must have been for a wooden post in the wall), dated to 500-475 B.C., Murlo, the building beneath the southern flank of the Upper Building, dated to c. 675 B.C., Murlo, the Lower Building, dated to 640-630 B.C., Murlo, the Upper Building at Murlo (*pisé* for the outer walls, while the inner walls seem to have been a combination of *pisé* and mudbrick), dated to the early 6th century B.C., Stigliano (few traces preserved).

### **Mudbrick**

Mudbricks were unfired bricks, made by clay mixed with straw in a form.<sup>380</sup> In between the layers of mudbricks was a thin layer of binding clay.

Mudbrick walls were not used for huts. From the Orientalizing and Archaic periods both unfired mudbricks and badly fired bricks are found, though not in a great number, probably because they have not been preserved or recognized in older excavations.<sup>381</sup>

We have only little evidence for mudbrick walls in early houses with thatched roofs. One of the earliest examples comes from the *Case del recinto* at Roselle, dated to the second quarter of 7th century B.C. Here the rock was cut to form a foundation for the mudbrick walls (the bricks were 33 x 25/26 x 7 cm).

In the Archaic period mudbricks are found at Acquarossa, zone L, Building A (measuring 36 x 43 x 7.5 cm), L'Ago dell'Accesa, Area A, room III (thickness between 5 and 7 cm), Marzabotto (35 x 15 x

<sup>378</sup> For this see K.M. Philips Jr., 'Bryn Mawr College excavations in Tuscany, 1970', *AJA* 75, 1971, 258.

<sup>379</sup> A.M. Bietti Sestieri *et al.*, 'Fidene: la struttura dell'età dell'ferro', *Archeologia Laziale* 10, *QArchEtr* 19, 1990, 118; Maaskant-Kleibrink 1991, 74, fig. 11; A.M. Bietti Sestieri, J. De Grossi Mazzorin & A. De Santis, 'Fidene: The Iron-age building', *CAECVLUS* 1, 1992, 77-85.

<sup>380</sup> A new book on mudbrick by Gus van Beck is forthcoming. For literary sources on mudbricks see Vitruvius 2.8.9-19.

<sup>381</sup> For a general discussion of mudbricks in Etruria see Staccioli 1967.

15 cm), dated to 500-475 B.C., Murlo, the Upper Building (partly *pisé*, partly mudbrick), dated to the early 6th century B.C., Orvieto, Belvedere (mudbrick covered with plaster, painted white and red), dated to the early 5th century B.C., Pyrgi, building A (interior walls were mudbrick walls, covered with plaster and painted), dated to 490-480 B.C., Pyrgi, the settlement area (31-33 x 41-46, H. 7-9 cm), Stigliano (6-8 cm thick), Tarquinia, Pian di Civita (the superstructure of the *murs a pilier* walls was either mudbrick or *pisé* (large plaster fragment with white paint), dated to the early 7th century B.C. phase and later, Gabii, the eastern area, phase 1, dated to c. 580 B.C., Rome, Castor and Pollux (some had a white slip, others a white stripe), dated to 484 B.C., Rome, S. Omobono, dated from 580 to 540/530 B.C. The best evidence for mudbrick walls comes from Roselle. Here are found buildings both without foundations and mudbrick walls and buildings with stone foundations and mudbrick walls. Mudbricks of different sizes were used in Roselle. The thickness varied from 7-8 to 12 cm, and they could be up to 50 cm long (mostly, however, they were between 30 and 40 cm on each side). The ones from *Casa del recinto* measured 33 x 25/26 x 7 cm.

A few literary sources mention mudbricks. The main source is Vitruvius 2.3. He refers to the technique as *structura latericia* or *opus latericium*. He discusses the three types of mudbricks: a rectangular Lydian mudbrick (*Lydion*), 1 x 1.5 feet (i.e. c. 29 x 44 cm) which is the one used in Italy, and 2. and 3. which are used in Greece. As opposed to the Italic mudbricks the Greek ones are square: the second type (*pentadoron*) is five palms on either side while the third (*tetradoron*) is four palms on either side.<sup>382</sup>

Mudbricks were also used for fortification walls, the earliest of which was in Roselle, dated to the second half of the 7th century B.C.<sup>383</sup>

### The woodwork of "clay" walls

Almost no remains of the woodwork of the walls have been preserved, except for a few examples of imprints of beams/posts in clay/plaster.

The wattle and daub walls of the huts were made by branches interwoven in more or less thick wooden posts, as can be seen from the postholes in the bedrock.

As mentioned above the hut at Fidenae with *pisé* walls also had a reinforcement of wooden posts in the walls.

Houses with stone foundations may have used the same type of wooden construction of the walls as the huts, since small postholes can be seen in the stone foundations of San Giovenale House I,

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<sup>382</sup> For other sources see Cic. *Div.* 2.47; Varro *Rust.* 1.14.4; Curtius Rufus 8.18.25; Columella *Rust.* 9.1.2; Suet. *Aug.* 28; Dio Cass. 39.61, though some of these of course discuss mudbricks used in later times.

<sup>383</sup> Vitruvius also mentions the mudbrick walls of Arezzo, which were excellently built (2.8.12; also mentioned by Pliny *HN* 35.173). A stretch of this wall was excavated, probably dated to the late 4th century B.C. (L. Pernier, 'Arezzo - Ricerche per la scoperta delle antiche mure urbane laterizie nei terreni di "Fonte Pozzolo e "Cantona"', *NSc* 1920, 167-217). The mudbrick were 41-44 x 26-28 x 12-24 cm.

phase 1 (*Figs. B162-B163*) - this building, however, lies somewhere between a hut and a house since it has sunken floors but a stone foundation.

Several reconstructions of wattle and daub walls suggest that posts were inserted into the stone foundation (*Fig. 98*). In fact we have very little evidence for this.<sup>384</sup> With the exception of House I on the acropolis of San Giovenale, postholes placed at intervals in the foundations have only been found in a few walls in Acquarossa (e.g. zone B, Building A, walls 9-10 and zone D). In the cistern at Vigna Parrocchiale at Cerveteri some tufa blocks with holes (diam. 30 cm; depth 15 cm) for posts (?) were found, but it is uncertain to what building they belonged. In general postholes in the foundations was a rare solution. Instead the posts for the wattle and daub must have been inserted into a horizontal wooden beam/ground plate, placed on top of the foundations, vertical corner beams, and a wall plate at the top. In order to stabilize the wall construction (and through that the support for the roof) a number of both horizontal, vertical and even diagonal beams could be inserted. The cavities in between could be filled with wattle and daub, but also *pisé*, or mudbricks, or even stones (see below). The wall plates on either side of the walls were joined by tie beams (see also below). Such a construction would be able to carry a thatched roof, but not a tiled roof.

At Satricum several postholes were found in the corner blocks or in the second last block which suggest that the horizontal beam/ground plate laid directly on top of the foundation was fixed directly into the socle with posts in the corners (*Fig. B337*). Similar evidence is not known from other sites.

Regarding tiled roofs several scholars have tried to show that mudbrick walls could carry a roof without any wooden reinforcement.<sup>385</sup> This is technically not possible because of the large weight of the tiles (for this see below).

In case of a tiled roof a truss would have been used to carry the roof (see below), and to carry the truss and the weight of the tiled roof, posts must have supported the ends of the truss. Thus the walls would not differ from the walls of houses with thatched roofs, except that the beams would have been thicker.

In Denmark (and elsewhere) wall constructions of this kind have been used for farmhouses with thatched roofs for centuries. Such buildings could stand for many centuries and many of them still do. It should be remembered that these thick thatched roofs were quite heavy and the timber frame is fairly substantial. On *Fig. 99* and *Fig. 103* such farmhouses can be seen. The timber frame of the walls of Danish farmhouses rested on a foundation of granite boulders. The beams were mortised together. More simple timber frame constructions are also known, e.g. only with vertical posts - such constructions are much less stabile.

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<sup>384</sup> As also stated by Melis & Rathje 1984, 392, esp. n. 44.

<sup>385</sup> E.g. Staccioli for the houses at Marzabotto (Staccioli 1967). He has argued against the use of half-timbering wall constructions, primarily because no wooden remains have been found. This argument *e silentio* is not valid, since we have no (or only little) wood from the roof construction preserved - and a roof without a wooden construction is hardly possible. Since Staccioli's article at least Satricum (see below) has shown beyond doubt that vertical wooden posts were used in the walls.

There must have been ample access to wood in Latium and Etruria from the Early Iron Age to the Archaic period, thus it is natural to assume that all these types of wooden beams were used in Etruscan buildings to give the building a greater stability. The beams seen on the buildings of the Verucchio throne (cat. no. 86) (*Fig. A80*) also supports such a construction. From other models similar evidence can be seen. From the first half of the 7th century B.C. the evidence consists of a bronze house urn from Civita Castellana (cat. no. 2) (*Fig. A1*): the vertical walls are divided into square fields by punched lines and rows of dots. These square fields may imitate a timber frame wall construction.<sup>386</sup> A similar construction has been suggested for the urn from Marsilina d'Albegna (cat. no. 1).<sup>387</sup> From the 6th century B.C. the evidence consists of a funerary urn from Cerveteri (cat. no. 52) (*Fig. A50*) with painted lines indicating the woodwork construction of the walls: the long sides are divided by four vertical ridges (two at each corner and two a short distance from the corner), and three horizontal ridges (one along the upper edge of the urn and two between the two inner vertical ridges). These ridges thus form three bands between the inner vertical ridges. On the short sides three bands are formed by two horizontal ridges. This probably represents a timber frame construction, though in this case a mere decoration is also possible.

A house model from Basilicata, now in the Danish National Museum, dated to the 6th century B.C., shows a rectangular building with a thatched roof.<sup>388</sup> On each side of a painted door a net pattern within a frame is seen, regular on one side and irregular (with diagonal lines instead of vertical lines) on the other side. This probably represents the wattle construction of a wattle and daub wall (*Fig. 23*).

Within the timber frame of the Danish farmhouses wattle and daub (later on bricks) were used. Two types of fastening the reeds of the wattle and daub walls to the beams were used: either the ends were fixed to a thin beam on the larger beam (*Fig. 100*), or the reeds were inserted into a slot in the beams (*Fig. 101*). Considering that the Etruscan beams probably not were rectangular in section, the second solution was probably used in Etruria. This assumption is based on two points: first that the evidence of plaster fragments with reed impressions that I know of point to rounded beams; secondly I assume that in order to protect the beams they would be encased in the walls and thus covered with clay. Since the beams would thus not be visible, I assume that the builders would not have bothered making the beams rectangular in section. The postholes in the foundations in Satricum were also circular in section, and that they were covered with clay is clear from the size and position of the postholes in the foundation stones (*Fig. B337*).<sup>389</sup> Thus I propose a slightly different reconstruction of Etruscan buildings with wattle and daub walls (in the case where no postholes have been found) (*Fig. 102*).

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<sup>386</sup> Andrén 1940, xxv, no. 11.

<sup>387</sup> For the interpretation see Buranelli 1985, 54-55 (with references to E. Stefani, 'II - Nepi - Scoperte di antichità nel territorio nepesino', *NSc* 1910, 218 n. 1). According to Stefani the urn reflects the inner walls of a house.

<sup>388</sup> Buranelli 1985, 73-75, fig. 41; Damgaard Andersen & Horsnæs forthcoming.

<sup>389</sup> Machintosh Turfa & Steinmayer 1996 also point out that there was no need to make beams rectangular when they were not seen.

### **Decoration on "clay" walls**

It is possible that the walls of the huts and the early houses may have been painted, as can be seen on the hut urns and building models from the Orientalizing period. From several sites we have evidence of both wattle and daub and mudbricks with traces of paint such as Murlo, the South-East Building, dated to 640-630 B.C. (red and white plaster), Roselle (mudbrick walls in Roselle were usually covered with a plaster layer, 2 cm in thickness, but thicker layers were also used. The walls of the *Casa del recinto* (mudbrick) were covered with fine yellow plaster), Ficana zone 5a, phase 2, dated to the late 7th/early 6th centuries B.C. (plaster), Rome (during the excavations of the temple of Castor and Pollux, several plaster fragments with red, blue and white were found, also in a combination.<sup>390</sup> The evidence indicates a red painted socle. These probably originated from Late Archaic houses in the vicinity), and Rome, Via Sacra (traces of paint). The same colours are seen on the late Orientalizing house urns from Cerveteri (cat. nos. 5-13) (*Figs. A3-A11*).

In general the "clay" walls were probably protected by some kind of whitewash (as are the farm houses in Denmark discussed above).

### WOODEN WALLS

No evidence for such wooden walls has been preserved, but wooden walls could easily have been used. House AA in Satricum, dated to the second half of the 7th century B.C., is claimed to have been of wood with a tiled roof (*Fig. B335*). Building Gamma at *Area Sud* in Pyrgi is suggested by Colonna to have had wooden walls. The building is dated to the 5th century B.C. (*Figs. B131-B132*). The building at Madonella in Cerveteri is also claimed to have been a wooden building. No supports for these wooden walls have been put forward.

### STONE WALLS

#### **Stone walls with ashlar blocks**

Stone walls were fairly common, though used much more rarely than "clay" walls. They were used both for smaller buildings and large monumental buildings. Several buildings at Acquarossa had stone walls such as zone B, Building A and zone F, Building A and C (one of the short walls of building C has been reconstructed to a height of more than 4 m), zone F, Building E. All these walls are dated to the 6th century B.C. Structure C on the acropolis of Marzabotto probably had walls at least partially in stone. In Narce, Monte Li Santi at least some of the walls were of stone (uncertain date). At Podere Tartuchino phase 1 the walls in partly in stone, in phase 2 almost entirely in stone, dated from the second half of the 6th century B.C. onwards. At Pyrgi Building B had stone walls and Building A had

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<sup>390</sup> P. Guldager Bilde & K. Slej, in: I. Nielsen & B. Poulsen (eds.), *The Temple of Castor and Pollux I*, *Lavori e Studi di Archeologia pubblicati dal Soprintendenza Archeologica di Roma* 17, Rome 1992, 188-217; Poster by P. Guldager Bilde at the conference 'From huts to houses - transformation of ancient societies', Rome, September 1997.

outer stone walls covered with white plaster and interior mudbrick walls. At Roselle, *Casa a due vani*, outer stone walls, preserved to 2 m and a mudbrick wall partition wall, dated to the first half of the 6th century B.C., were found. *Casa dell'Impluvium*, dated to the second half of the 6th century B.C. and perhaps also *Casa C*, dated to the late 7th/early 6th century B.C. had stone walls. On *Collina Sud*, room G-H-I (same building?) had stone walls with clay used as mortar. The houses on the Borgo of San Giovenale have been preserved up to a height of 3 m. At Macchia Grande at Veii the buildings built into the slope had stone walls, preserved up to a height of 1.60 m. The houses were built up to the tufa wall of the slope on the back, which thus functioned as the rear walls of these houses. In Rome, Via Sacra, phase 3 wall 17 was a stone wall, preserved at the time of excavation to 2.25 m in height, thus the entire building must have been in stone.

A specific building is the "*naiskos*" from Chiusi, a small building entirely of stone (including the architectural decoration (*Fig. B39*), dated to the third quarter of the 6th century B.C.

#### **Stone walls in a *murs a piliers technique*<sup>391</sup>**

These consist of walls built of large stone blocks/"pilastres", placed at intervals, with a fill of smaller stones in between. These walls could also be covered with plaster and painted. This technique resembles Near Eastern building technique. They are known at Tarquinia, Building Beta, dated from the early 7th century B.C. (*Fig. B183*), Tarquinia, Porta Romanelli (*Fig. B200*), dated to the Archaic period, and Orvieto, Cannicella, dated to the Late Archaic period. In Tarquinia, Pian di Civita, these walls were placed partly on bedrock, partly on remains from previous periods. The stones in between the blocks rested in a depression, sometimes also covered by a layer of beaten earth or crushed stones. The upper part of the walls was either mudbrick or *pisé* (plaster fragment found). This technique went out of use in the first half of the 6th century B.C. in Building Beta.

Walls of this type were also found at Gravisca, but in the third phase, dated to the late 5th/early 4th centuries B.C.<sup>392</sup>

#### **Stone walls with a half-timbering construction**

Such a construction is suggested for Lavinium (*Fig. B282*)<sup>393</sup> and Castel di Decima. In between rectangular spaces, created by the beams of the wall, were placed irregular stones in a clay binding.

#### **Decoration/plaster on stone walls**

Both the outer and inner sides of the walls could be covered with plaster, which could be painted. In Pyrgi rectangular stone blocks of building B were dressed with plaster painted red and white, and similar colours are found on plaster at Orvieto, Belvedere. The walls of Building Beta at Tarquinia were in its early 7th century phase painted white (on plaster on top of the walls in *murs a piliers*), and

<sup>391</sup> For these in general see Bonghi Jovino 1991.

<sup>392</sup> Bonghi Jovino 1991, 186 (with further references).

<sup>393</sup> A slightly different version is suggested by Guaitoli 1981, fig. 2 with diagonal beam inserted near the corners.



in the later phase (late 7th/early 6th century B.C.) red and white. The walls of the house on Via Sacra in Rome were plastered and painted on the interior (black, red, white, and yellow bands or squares).

#### THE HEIGHT OF WALLS

The height of walls is uncertain. Catacchio & Negroni have calculated the height of one of the large oval huts at Sorgenti della Nova to be c. 2 m along the walls and c. 4-5 m at the centre, based on calculations of the depth and diameter of the postholes and the distance between them.

The height of later walls is difficult to establish, since most actual walls (with the exception of the stone walls discussed above) only preserve a few courses or no evidence of walls at all. In the case of S. Omobono in Rome (mudbrick) the height has been estimated to 4.70 m because of clay/mudbrick remains in the section. The stone walls of the houses on the Borgo were preserved up to 3 m. The stone walls of Building C in zone F in Acquarossa could be reconstructed to more than 4 m. The wall belonging to the 3rd phase of the house on Via Sacra in Rome was 2.25 m.

The models suggest that the walls were not much higher than the doors, i.e. probably a height between 2.50 and 3 m.

Staccioli has suggested that the height of walls in Etruscan building in general were between 2.5 and 3 m.<sup>394</sup> All in all this seems a reasonable height for a one-storey building, though more monumental buildings like S. Omobono and Acquarossa zone F apparently were higher.

#### PARTITION WALLS

##### HUTS AND HOUSE WITH THATCHED ROOFS

We have no certain evidence for partition walls from the Early Iron Age, but some of the larger huts, e.g. at Tarquinia, Monterozzi, probably had partition walls of the same type as the outer walls (*Fig. 2, 13*). For the huts from the Archaic period we have evidence of partition walls from Veii, the *Holzbau*, probably also in wattle and daub (*Figs. B 219 and B221*).

##### BUILDINGS WITH TILED ROOFS

Partition walls are known from a number of buildings. In most cases they seem to have been identical in construction to the outer walls, though often thinner. They are often in a mudbrick or *pisé* construction. In Pyrgi building A the inner walls seem to have been mudbrick while the outer walls were stone walls. A few examples of stone partition walls are known from Veii, Macchia Grande, and San Giovenale.

In a few cases we have evidence for a "double wall", i.e. two walls placed close together, probably in order to reinforce the building and thus make it possible to carry a heavier roof/larger span. It could also be used to stabilize buildings on a sloping site or on unstable topsoil.<sup>395</sup> This can be seen in Podere Tartuchino, phase II (early 5th century B.C.), L'Ago dell'Accesa complex VIII (rooms I and II)

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<sup>394</sup> Staccioli 1970.

<sup>395</sup> Perkins & Attolini 1992, 116.

as well as the adjacent walls of complexes VII and VIII. In Ficana, zone 5a, the partition wall from the second phase was left standing in the third phase, probably also to reinforce the walls.

From the secondary evidence partition are attested on the Velletri urn (cat. no. 80) (*Fig. A74*) as well as on almost all of the house-shaped tombs, but these do not add anything further to our knowledge except that they were common features in buildings.

## DOORS

### HUTS

The location of the door of the huts can be deduced from the postholes for the doorposts or sometimes by the cut out for a step (e.g. in the hut on the Palatine) (*Figs. 88e and 90.2*).<sup>396</sup> Both door and frame must have been in wood. The thickness of these door posts varies from sturdy ones to very thin ones - the latter may indicate arched doors, since the doorposts and the upper lintel would have been made from a single stem or branch.<sup>397</sup> Most doors, however, must have been rectangular or slightly trapezoidal, as can also be seen from the hut urns. The door was usually placed on one of the short sides of the hut. This can be seen both from the excavated huts and the hut urns. There are a few examples of small rectangular huts with a single door on one of the long sides, e.g. in Satricum (*Fig. B332*) - this is not reflected in the hut urns. Two doors are unusual (one on the short side and one on the long side). There is, however, a preference for two doors in Southern Etruria and Latium (Veii, Tarquinia hut 13, Lavinium).<sup>398</sup> Two doors are seen on a few hut urns (Ostera dell'Osa tombs 128 and 131 and Lavinium tomb 16).<sup>399</sup> On both hut urns and in real huts the side door is much smaller than the front door. On several of the hut urns there is a relief moulding around the door (e.g. *Fig. 10*), which may reflect a decoration on real huts.

On the votive model from Sala Consilina (cat. no. 73) (*Fig. A67*) a simple rectangular door opening is seen while the one from Satricum (cat. no. 74) (*Fig. A68*) has an entire open front. These models, however, may also represent houses with thatched roofs.

Finally arched doors are seen on the hut representations on Roman coins and medaillons (see chapter 3) as well on "foreign" huts, such as on the column of Marcus Aurelius.

### HOUSES WITH THATCHED AND TILED ROOFS

Like for the huts, the doors and frames most often were of wood.<sup>400</sup> In a few cases the doorsteps and the door posts were of stone (see below). In several cases the entrance cannot be located. From the remaining buildings it is clear, however, that the entrance could have been placed both on the long side or the short side, depending on the location of the building within the settlement or the terrain

<sup>396</sup> For doors in huts see Prayon 1975, 121-122; Bartoloni, Beijer & De Santis 1985, 188.

<sup>397</sup> Prayon 1975, 122.

<sup>398</sup> Bartoloni, Beijer & De Santis 1985, 179, Bartoloni *et al.* 1987, 141.

<sup>399</sup> Bartoloni *et al.* 1987, 141.

<sup>400</sup> For doors in general see Hanfman 1942; Prayon 1975, 163-164.

(e.g. slopes). Inner doors were also used, though in many cases there was apparently no door in the partition walls, and the rooms were only accessible from the outside (as is also the case in the house tombs with two or three rooms opening to the vestibule. In the case of "*palazzi*" and courtyard houses the entrances were from the courtyard.

These entrances/doors are located either from the absence of foundations or - more rarely - because of a doorstep. Only a few models show schematic rectangular openings for doors.

In a few cases the door opening has been preserved. In the large house in Marzabotto, regio V,3 the doorposts were of stone. In Acquarossa, zone B, Building A, remains of the stone basis for a (wooden) doorpost were found. In the eastern house at Macchia Grande at Veii an interior door opening has been preserved in the stone partition wall. The width of the door is c. 1 m. The excavator Stefani suggested that the door was arched because curved tufa blocks were found. Unfortunately, these were not illustrated.

At both Building A and B at Pyrgi terracotta frames for a door were found (see below the discussion on rectangular doors).

Doorsteps have also been preserved a few places: in Structure IV, phase III in Area A in L'Ago dell'Accesa, a doorstep consisting of a large slab was found on the southern side, between wall 3 and 7. In Podere Tartuchino, phase II, room A had a the cobbled doorstep, 80 cm wide. At Roselle, *Casa C*, the stone doorstep in the partition wall was 70 cm wide. In Roselle, *Casa dell'Impluvium* a few doorsteps with thin stone plaques were also found (width c. 70 cm). At Veii, Macchia Grande in the eastern house the doorstep was 1.97 m wide. In Ficana doorsteps were found in zone 5b in the two northwestern rooms on the southwestern side (A and B), dated to the late 7th/first half of the 6th centuries B.C. and in zone 6a, wall F (made of pan tiles), dated to the 6th century B.C. In Lavinium, the building near the 13 altars, a tufa doorstep is preserved. Doorsteps are only seen on one model, the Tuscania cippus (cat. no. 64) (*Fig. A59*). In the case where no doorsteps were found, one must assume that the entire door frame was made of wood (as also suggested for Lavinium (*Fig. B282*)).

In Acquarossa, zone F, Building C, the entrance was located in the second room from the north, and in the middle of the doorway there was a column. It is uncertain if/how this opening was closed.

Judging from the preserved openings and doorsteps the width of most of the doors seems to have been 0.70-0.80 m for inner doors, while entrance doors seem to have been between slightly wider, up to 1.40 m.

Our best evidence for doors comes from tombs, both the chamber tombs in Cerveteri representing the interior of houses<sup>401</sup> and wall paintings,<sup>402</sup> especially from Tarquinia. From these we get opening for doors, actual stone doors<sup>403</sup> and false doors.<sup>404</sup> In a few models doors are also seen. In the following openings will also be referred to as "doors". Several shapes of doors are known:

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<sup>401</sup> In general see Hanfmann 1942; Prayon 1975, 37-39, 98-106; Brocato 1996, 66.

<sup>402</sup> Naso 1996, 412-413.

<sup>403</sup> The interpretation of stone doors are disputed. For a summary of the discussion and references see Prayon 1975, 102, n. 562.

### 1. The arched door<sup>405</sup>

The above-mentioned interior door at Macchia Grande may have been arched, but otherwise the only examples come from tombs. The type is common especially in the Caeretan tombs.<sup>406</sup> Tombs of the B<sub>1</sub>-type use arched doors if they only have one room (e.g. T. del Colonello 1). If the tomb has two rooms a rectangular door is used from the outside to the dromos, while the inner doors are arched (T. della Capanna).<sup>407</sup> For the tombs of type B<sub>2</sub> this custom is reversed: arched doors used from the outside to the dromos, rectangular doors inside. The arched dromos door of the T. della Nave 1 has a moulding around the door. This probably imitates a wooden decoration around the real doors in houses. Similar ridges around the doors are also seen on hut urns (all rectangular doors). Several of these doors in tombs preserve paint (red and yellow).

Since the example from Macchia Grande is uncertain, it is possible that the arched door was only used in tombs.<sup>408</sup> It is also possible that the origin of the arched door should be sought in woodwork construction or that the arched door represents an open gate.<sup>409</sup> It has been suggested that the arched door may have symbolized the passage between the world of the living and the world of the dead, thus the arched door would not represent an actual door.<sup>410</sup> This theory is supported by the placement of the arched doors in tombs of type B<sub>2</sub>. Since they are used solely in the entrance from the outside to the dromos, they are only part of the tomb, not part of the (interior) imitation of the house. The inner doors within the tomb, and thus in the imitation of the house, are all rectangular.<sup>411</sup> On the other hand in several of the other types of tombs a rectangular dromos door is used (type B<sub>1</sub>, type E, and type F).

Against this theory speaks again the supposed arched door in Macchia Grande.

### 2. The rectangular door

Most doors were probably rectangular, but very little evidence of doors has been preserved. In Pyrgi, both at Building B and A, terracotta frames for a rectangular door have been found. It is slightly tapering upwards and the frame is decorated with a moulded floral pattern (*Fig. B123*). In tombs a similar kind of frame has been found around doors, such as the tomb Via degli Inferi 1, though in this case the door is of the *porta Dorica* type (*Fig. 104*) (see below).

Only few models have rectangular doors/door openings. On the "*naiskos*" from the Late Orientalizing period a rectangular door frame with a moulded guilloche pattern is seen, not unlike the

<sup>404</sup> For false doors see Sgubini Moretti 1991a, 29 n. 24 (with further references).

<sup>405</sup> The origin of the arched door has been suggested to be in the Northern Syrian area (Colonna 1986, 398), but a simple arched door - as is also seen on the Early Iron Age hut urns - need not be inspired from abroad.

<sup>406</sup> For the use of arched doors contra rectangular doors see Prayon 1975, 38-39, 65; Colonna & von Hase 1984, 25.

<sup>407</sup> Tombs of type A (not in the shape of houses) also use arched doors, such as the T. delle Statue at Ceri (Colonna & von Hase 1984).

<sup>408</sup> Hanfmann 1942, 9-10; Naso 1996, 412 (both, however, without referring to the evidence from Macchia Grande).

<sup>409</sup> Demus-Quatember 1958, 54-55; Prayon 1975, 99.

<sup>410</sup> The arched doors of type B all face towards the NW, i.e. the region of the Underworld (Prayon 1975, 100-101; Colonna & von Hase 1984, 25).

one from Pyrgi (cat. no. 17) (*Fig. A15*). Otherwise only simple rectangular openings are known from the votive models, either doors (cat. nos. 76 and 79 (*Figs. A70 and A73*)) or large openings (cat. nos. 75 and 80) (*Figs. A69 and A74*)

In tombs the evidence for the rectangular door is abundant. It is common especially in the Caeretan tombs of the 7th century B.C. As we saw above, they were used as inner doors in type B<sub>2</sub> and C<sub>1</sub>.

Rectangular doors are also attested from outside Cerveteri, such as e.g. Chiusi (second quarter of the 5th century B.C.),<sup>412</sup> and Veii (T. della Campana and T. Vacareccia). The painted tombs of especially Tarquinia often have simple rectangular doors between the dromos and the burial chamber. In facade tombs the simple rectangular door is also common (both inside and between the outside and the chamber or vestibule).

In a few examples the doors had bronze studs, such as the ones found in Veii, T. Campana.<sup>413</sup>

Bronze sheets, such as the ones now in the Ny Carlsberg Glyptotek, may have decorated a door.<sup>414</sup>

In a few cases actual doors have been preserved in the tombs, such as in the T. del Colle at Chiusi, dated to the first half of the 5th century B.C.<sup>415</sup> The door consists of two travertine slabs, each with an iron handle. In the cemeteries of Cerveteri real doors are only rarely preserved - two examples of rectangular doors with panels are known from Greppe Sant'Angelo, now at the museum at Cerveteri (*Fig. 105*). These are, however, dated to the 4th century B.C.<sup>416</sup> Otherwise only incised rectangular doors (T. della Croci)<sup>417</sup> or doors only slightly cut out of the tufa (T. 50)<sup>418</sup> are known. These false doors should be considered entrances to imaginary chambers, as they are mainly seen to have been placed for optical reasons.

In Tarquinia a large number of painted false rectangular doors are known (*Figs. 76-77*). Probably these should also be considered doors to imaginary chambers, since they are usually placed on the back wall in a position where other tombs have entrances to actual chambers, or doors to the Underworld.<sup>419</sup>

### 3. The *porta Dorica*

The *porta Dorica* is trapezoidal in shape with a broad upper lintel and framed with a relief decoration.<sup>420</sup> A few examples are seen on the models. One is known in the "*naiskos*" from Chiusi (cat. no. 34) (*Fig. A33*). On the intaglio now in Boston the entire front is formed like an open *porta Dorica* (cat. no. 88) (*Fig. A81*). A *porta Dorica* is seen both on the Late Archaic cippi from near Castel d'Asso

<sup>411</sup> Prayon 1975, 100.

<sup>412</sup> Steingraber 1981, fig. 126.

<sup>413</sup> Naso 1996, 413.

<sup>414</sup> F. Johansen, *Reliefs en bronze d'Etrurie*, Copenhagen 1971; Naso 1996, 413.

<sup>415</sup> Colonna 1986, fig. 350.

<sup>416</sup> G. Proietti, 'Osservazione preliminari su un monumento sepolcrale in località S. Angelo a Cerveteri', *Archeologia nella Toscana*, 1982, 104-108; Cristofani & Nardi 1987, 97-100, figs. 93-97; Cristofani 1991, 67-69.

<sup>417</sup> Prayon 1975, 104, Taf. 56,3.

<sup>418</sup> Prayon 1975, 104, Taf. 56,2.

<sup>419</sup> Prayon 1975, 105 (with further references).

and the one from Tuscania, Pian di Mola (cat. nos. 61 and 64) (*Figs. A58 and A59*) - in these cases they are false doors.

This type constitutes the most common type on the Archaic rock facades (both as actual doors and false doors), in the tombs of Cerveteri, and in the painted tombs of Tarquinia (here as false doors) from the mid-7th century B.C.<sup>421</sup> The earliest examples of the *porta Dorica* is seen in T. Cima in San Giuliano and T. del Sole e della Luna in Vulci, both dated to the third quarter of the 7th century B.C. In Greece the earliest example can be seen in a model from Olympia, dated to the late 7th century.<sup>422</sup> One therefore wonders whether this door type really is inspired from Greece or if it in fact is an Etruscan invention.

A variant of the *porta Dorica* is the type where the upper lintel is curved on the lower side at each end (*mondanatura a becco di civetta*) (*Fig. 106*).<sup>423</sup> This type is typologically later than the ordinary *porta Dorica*<sup>424</sup> and is only seen in Etruria. The type is thus considered an Etruscan invention, possibly Caeretan.

#### 4. The *lünetten* door

A *Lünetten* door is a rectangular door with a semi-circular panel above. This type is only known from tombs, especially in Cerveteri. In type C and D<sub>1</sub> all dromos doors are of this type. The type is also used for inner doors in type C<sub>2</sub> (*Fig. 107*). In type D the *Lünetten*-door is only used as a dromos door, while the inner doors are of the Doric type.

The doors may be either openings or false doors.<sup>425</sup> In case of the false doors they may either be plain or have four panels in relief. Doors with four panels are attested e.g. in Cerveteri, T. della Ripa (*Figs. 68-69*). Panels may also have been painted on the doors, such as the T. dell'Argilla at Cerveteri. In all cases these panels seem to imitate bronze fittings on doors, as can also be seen in tomb paintings.

It has been suggested that the *Lünetten*-type is a transitional form between the arched door and the rectangular door, i.e. a mixture of the tomb/cult element and a house element.<sup>426</sup> It is possible that the *Lünetten*-door was only used in tombs.

## WINDOWS

### HUTS

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<sup>420</sup> The term is taken from Vitruvius 4.6.1-2, who describes the type.

<sup>421</sup> Prayon 1975, 164.

<sup>422</sup> Naso 1996, 414 (with further references). For Greek doors in general see A. Büsing Kolbe, 'Frühe Griechische Türen', *JdI* 93, 1978, 66-174; H. Büsing, 'Dorische Türrahmen', in H. Büsing & F. Hiller (eds.), *Bathron. Beiträge zur Architektur und verwandten Künsten für Heinrich Drerup zu seinem 80. Geburtstag*, Saarbrücken 1988, 107-115.

<sup>423</sup> Naso 1996, 416.

<sup>424</sup> Naso 1996, 331.

<sup>425</sup> False doors of the *Lünetten*-type are known in type C, T. della Croci (type C<sub>1</sub>) and type D, T. della Ripa (type D<sub>2</sub>).

These false doors should probably be considered as exits (from the tomb or the house), not as imaginary entrances to another chamber in the tomb (Prayon 1975, 104).

<sup>426</sup> Prayon 1975, 101.

The evidence for windows<sup>427</sup> in huts naturally has to be based entirely on the hut urns and other models (none of the "modern" huts have windows).<sup>428</sup> Cut out windows are only seen on few hut urns (*Fig. 108*). Several incised or moulded rectangular ornaments are seen on the side of the urns, probably intended to represent windows (*Fig. 10*).<sup>429</sup> All windows are rectangular, with the exception of an arched window on an urn from Pratica di Mare (*Fig. 109*).<sup>430</sup> They are usually placed on one of the long sides. According to Prayon a few hut urns have a painted<sup>431</sup> or reliefs cross,<sup>432</sup> probably representing bars (*Fig. 110* - in this case a door instead of a window cannot be excluded).

Only few windows are seen on the other models or depictions of buildings. On the Bologna stele, dated to the 9th and 8th centuries B.C. (cat. no. 65) (*Fig. A60*), two square windows are seen, on the votive model from Sala Consilina (cat. no. 73) (*Fig. A67*) a small rectangular window is seen on one of the long sides and on the cippus from Canale Monterano the square recess probably indicates a window (cat. no. 60) (*Fig. A57*). The latter two, however, may also represent houses with thatched roofs.

#### HOUSES WITH THATCHED AND TILED ROOFS

Evidence for windows in buildings has only been preserved in San Giovenale, the Borgo.<sup>433</sup> Here simple rectangular windows are seen. Windows are not as commonly depicted as doors. They are seen in a number of tombs from Cerveteri (from type C<sub>2</sub>) next to a door (in the case of two windows often flanking a door).<sup>434</sup> Prayon has suggested that the reason why the early tombs did not have windows is that before this period they would have to have been niches/recesses in the walls.<sup>435</sup> In the later tombs (type E and F<sub>1</sub>) the windows become more stylized and turn into false windows/recesses and finally disappear in type F<sub>2</sub>. None of the models have windows.<sup>436</sup>

In some cases skylight tiles would also have provided light and air (see below).

##### 1. Rectangular windows

The only rectangular windows are those from San Giovenale mentioned above.

##### 2. Windows of the Doric type

<sup>427</sup> Prayon 1975, 122-123 and 164-165; Bartoloni, Beijer & De Santis 1985, 188.

<sup>428</sup> Pugliesi has argued that the Palatine hut had a window (for a discussion of this see Prayon 1975, 122-123).

<sup>429</sup> See further chapter 3.

<sup>430</sup> Bartoloni *et al.* 1987, cat. no. 176, fig. 84.

<sup>431</sup> Prayon 1975, 123; Bartoloni *et al.* 1987, cat. nos. 79 figs. 43. This, however, can not be seen on the illustration in Bartoloni *et al.* nor is it mentioned in the catalogue.

<sup>432</sup> Prayon 1975, 123; Bartoloni *et al.* 1987, cat. nos. 174 fig. 82.

<sup>433</sup> Nylander 1984, 67.

<sup>434</sup> In general see Hanfman 1942; Prayon 1975, 39-41 and 165-166; Brocato 1996, 66; Naso 1996, 413-416.

<sup>435</sup> Prayon 1975, 165.

<sup>436</sup> On later models are indications of windows (Staccioli 1968a, cat. no. 41 (Minturno, dated to the cat. nos. 53 (Capua, dated to the 4th-3rd centuries B.C.) and cat. no. 57 (Fratte di Salerno, dated to the late 4th-early 3rd centuries B.C.))

The type is known from the Caeretan tombs, such as T. 335/336-di Marce Ursus, type E (Fig. 70). The frames of the windows of the Doric type were painted as attested from the T. dell'Argilla at Cerveteri, dated to the second quarter or the middle of the 6th century B.C. They are also seen in S. Giovenale, tumulo IX del Porzarago (Doric windows on either side of a *porta Dorica*).<sup>437</sup>

In some of the Caeretan tombs entrances to small *loculi* are made to look like Doric windows, such as Laghetto II, T. 290<sup>438</sup> and Laghetto II, T. 291.<sup>439</sup> In the latter case the Doric frame is painted.

A different version of the Doric window is the type where the upper lintel is curved on the lower side at each end (*mondanatura a becco di civetta*) (Fig. 106).<sup>440</sup> These can also be painted frames around a rectangular window, such as in Cerveteri T. 290 (Fig. 111).<sup>441</sup> This type is also used for doors (see above).

### 3. Windows of the *Lünetten*-type

These are only seen in tombs such as Cerveteri, T. 309-della Casetta (Fig. 107), Cerveteri, Tomba della Cornice (Fig. 112), Blera, Tumulo della necropoli del Terrone, T. I:A8,<sup>442</sup> Blera, Pian del Vescolo, T. della Sfinge,<sup>443</sup> and S. Giovenale, la necropoli delle Grotticelli.<sup>444</sup> All tombs are of type C<sub>2</sub> and D<sub>1</sub>. In type C<sub>2</sub> they flank *Lünetten* doors (Fig. 107), in type D<sub>1</sub> doors of the *Porta Dorica* type (Fig. 112).

### 4. Triangular windows

In a few early tombs triangular "windows" are seen, but it is unlikely that they depict real windows.<sup>445</sup> They are known from the late 7th century B.C. (e.g. T. A del Tumulo I del Caiola in San Guiliano).

Rectangular windows are securely documented from real buildings and Doric windows were probably also used. *Lünetten* windows are dubious as are triangular windows.

## FLOORS

<sup>437</sup> Romanelli 1986, 35-36, tav. 14.

<sup>438</sup> R.E. Linington, *Lo scavo nella zona Laghetto della necropoli della Banditaccia a Cerveteri, Rassegna di Studi del Civico Museo Archeologico e del Gabinetto Numismatico di Milano, Notizie dal Chiostro del Monastro Maggiore* 25-26, 1980, 66-67, fig. 49; *Gli etruschi e Cerveteri. Nuove acquisizioni delle Civiche Raccolte Archeologiche. La prospezione archeologica nell'attività della Fondazione Lerici*, Mostra Milano, Palazzo Reale, Settembre 1980 - Gennaio 1981, Milan 1980, 154-160.

<sup>439</sup> R.E. Linington, *Lo scavo nella zona Laghetto della necropoli della Banditaccia a Cerveteri, Rassegna di Studi del Civico Museo Archeologico e del Gabinetto Numismatico di Milano, Notizie dal Chiostro del Monastro Maggiore* 25-26, 1980, 67-69, fig. 50; *Gli etruschi e Cerveteri. Nuove acquisizioni delle Civiche Raccolte Archeologiche. La prospezione archeologica nell'attività della Fondazione Lerici*, Mostra Milano, Palazzo Reale, Settembre 1980 - Gennaio 1981, Milan 1980, 161-164.

<sup>440</sup> Naso 1996, 416.

<sup>441</sup> R.E. Linington in *Gli etruschi e Cerveteri. Nuove acquisizioni delle Civiche Raccolte Archeologiche. La prospezione archeologica nell'attività della Fondazione Lerici*, Exhibition Milano, Palazzo reale Settembre 1980 - Gennaio 1981, Milan 1980, 154-155. The material found in the tombs date from the late 6th to the mid-5th century B.C. The same is seen in T. 291 (p. 162).

<sup>442</sup> Romanelli 1986, 35, tav. 14.

<sup>443</sup> Romanelli 1986, 35.

<sup>444</sup> Romanelli 1986, 35, tav. 15.

<sup>445</sup> Naso 1996, 415.



## HUTS

The floor in huts consisted of beaten earth.<sup>446</sup> In some cases the floor included pebbles or pulverized tufa. Pebbles are seen at least from the Early Iron Age huts (e.g. in Tolfa<sup>447</sup> and San Giovenale Hut E<sup>448</sup>). In Tarquinia, Pian di Civita, the floor/pavement from the Late Bronze Age consisted of crushed *macco*, a local volcanic stone.<sup>449</sup> The huts are often surrounded by a ring of pebbles in order to keep damp out (e.g. Hut E in San Giovenale) (*Fig. 89*) and drainage channels are often dug around the huts.

## HOUSES WITH THATCHED AND TILED ROOFS

Only rarely have floors been preserved, thus we assume that it consisted of beaten earth/clay. In some cases these floors can be recognized, especially if the buildings were destroyed by fire and the beaten earth/clay floor "fired", such as the South-East Building at Murlo.<sup>450</sup> The thickness of such floors varied (though the thickness is only rarely given), but could be up to 20-30 cm thick (e.g. in L'Ago dell'Accesa). Often the floor was mixed/covered with stone flakes, pebbles, or small fragments of tiles and pottery in order to keep out damp (e.g. in L'Ago dell'Accesa). In Tarquinia, Pian di Civita, the floor/pavement of the previous period with crushed *macco* continued to be used. In several monumental buildings such as temples the cavities in between the foundation walls were filled with earth/clay and stone flakes, which also formed the floor of the building (e.g. in Pyrgi, Building A and B).

In storage area pithoi/dolia was often inserted into the floor (e.g. in Podere Tartuchino or Murlo the Lower Building).

In some cases the level of the floor was below the lowest level of the foundations (such as in Acquarossa zone N, Building A and several of the houses in L'Ago dell'Accesa).

We have several examples of floors on different levels, when buildings were situated on slopes (e.g. Acquarossa and L'Ago dell'Accesa).

We have only few examples of floors being covered with stone slabs: Cerveteri, Valle Zucchara, dated to the second half of the 6th century B.C., Marzabotto, the pavement north of the acropolis as well as the pavement in the monumentalized spring outside Marzabotto, both dated to 500-475 B.C., Roselle, *Casa dell'Impluvium*, room VI, dated to the second half of the 6th century B.C., Sasso di Furbara (a pavement of small stones and *peperino* slabs), dated to 525-500 B.C., Acqua Acetosa Laurentina, the northeastern room in building V,1, dated to the second half of the 6th to the early 5th centuries B.C., Castel di Decima (only a floor with *cappellaccio* slabs, no walls), probably Archaic, Rome, the Castor and Pollux temple (*cappellaccio* slabs), dated to 484 B.C., the 4th phase of the building on the Via Sacra in Rome.

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<sup>446</sup> Prayon 1975, 120 (with further references).

<sup>447</sup> Maffei, 111.

<sup>448</sup> Prayon 1975, 120 (with further references).

<sup>449</sup> See the appendix.

<sup>450</sup> Nielsen 1987.

In Cerveteri, Vigna Parrocchiale, the elliptical structure (though probably not roofed) was surrounded by a pavement of radially placed tufa slabs, dated to the early 5th century B.C. (*Figs. B32-B33*)

Tile floors are also rare: Roselle, *Casa dell'Impluvium*, room IV (a pavement of pan tiles), dated to the second half of the 6th century B.C., Ardea, Casalinnaccio (a floor of reused eaves tiles), dated to the late 6th century B.C.

Wooden floors: we have no direct evidence of wooden floors, but the cavities (a kind of cellars/store-rooms) in some of the houses at Casal Brunori, at Veii, Piazza d'Armi, trench 4, and Satricum, the courtyard houses (dated to 580-560 B.C.) suggest that wooden planks must have been used for the floor.

## HEARTHES

### HUTS AND HOUSES WITH THATCHED ROOFS

Within huts hearths are often found in a slight hollow in the ground, mostly circular in shape.<sup>451</sup> The hearth may also be attested simply by bones and ashes. In some cases stones, earth or clay was used around the hearth. The hearth is usually placed in the centre of the hut.<sup>452</sup>

For the houses with thatched roofs we have no evidence of a hearth within the buildings, thus they probably used transportable braziers.

### BUILDINGS WITH TILED ROOFS

Only few remains of hearths have been found in buildings, thus portable braziers must have been used: in Acquarossa were found a few recesses, which were originally interpreted as fireplaces with chimneys (zone B and D). Sheffer has suggested that they could not be chimneys but rather should be interpreted as cupboards.<sup>453</sup> A similar recess was found in Roselle, *Casa dell'Impluvium* in room VIII, dated to the second half of the 6th century B.C. (*Fig. B149, no. 39*). In zone G there is an uncertain hearth between the two houses, thus outdoor. In zone B the last hearth consisted of a large stone with a cracked surface (*Fig. B7*). In Roselle, *Casa dell'impluvium*, room IV, V, and VIII each contained a hearth (*Fig. B149*). In San Giovenale hearths were found in several of the houses.<sup>454</sup> In the building at San Giovenale near the bridge a hearth was located but it probably belonged to an earlier phase of which no walls are preserved (*Fig. B170*). In Tarquinia, Pian di Civita, Building Beta, a hearth is located on the southern side of the building (*Fig. B181, no. 330*). In Veii, Macchia Grande, a hearth was found in the eastern house in the NE corner (g), and another closer to the centre of the room (h) (*Figs. B214-215*). The hearth g was probably constructed with a kind of chimney.<sup>455</sup>

<sup>451</sup> Prayon 1975, 120 (with further references).

<sup>452</sup> A few examples of hearths outside the hut is known (Bartoloni, Beijer & De Santis 1985, 179).

<sup>453</sup> Sheffer 1981, 94. A. Vidén in *Viterbo* 1986, 56 also rejects the idea of chimneys.

<sup>454</sup> These have not been published, only mentioned.

<sup>455</sup> Sheffer 1981, 94 n. 299 claims that chimneys were not used in Etruscan Italy at all. She does not

## GABLES

### HUTS AND HOUSES WITH THATCHED ROOFS

On huts and houses with a hipped roof the gable was part of the roof construction. Buildings with two faced roofs probably all had a plain gable.

### BUILDINGS WITH TILED ROOFS

Since these all had two-faced roofs, they must have had gables at both ends. Four types of gables are employed:

1. plain gables with no kind of decoration.
2. gables with a relief decoration in terracotta.
3. gables with a pediment decoration consisting of plastic terracotta figures.
4. recessed gables, i.e. a flat or slightly slanting inserted "floor" within the gable, thus forming a third (and fourth) fall of the roof within the gable. The extra "falls" were covered with cover tiles, pan tiles, and often antefixes. Antepagmenta could also be used with this type of gable.

Type 1 seems to be the most common type of gable. Type 2 is known only known from the second phase of the building at S. Omobono, dated to 540-530 B.C. On the models it is possibly seen in the "naiskos" from Cerveteri (?), dated to the late 7th century B.C. (cat. no. 17) (*Fig. A15*). On a few Late Archaic cippi volutes are seen in the gable. It cannot be excluded that these represent a relief decoration in the gable (cat. no. 61) (*Fig. A58*). A similar kind of decoration is seen on the cippus from Tuscania, but in this case an elaborate king-post may also have been intended (cat. no. 64) (*Fig. A59*). Type 3 is only known from the two small gables with warriors from Cerveteri, though they cannot be attributed to any building.<sup>456</sup> The type is not seen on any of the funerary or votive models. More pediments may have existed (see below). Type 4 is fairly common on Classical and Hellenistic models (such as e.g. the Nemi model (*Fig. 113*)) and mirrors (*Fig. 114*), but earlier examples are known such as the four models from Chiusi (cat. nos. 28, 32, 34, 35) (*Figs. A27, A31, A34, A35*), dated to the 6th and early 5th centuries B.C. The origin of the type may, however, be much earlier. Several scholars have suggested that the thatched hipped roofs of the Early Iron Age discussed above may represent the forerunners for this type of gable.<sup>457</sup> This can be seen from the hut urns and especially the hipped roofs the stelae from Tarquinia (cat. no. 57) (*Fig. A54*) and the votive model from Satricum (cat. no. 74) (*Fig. A68*).

Many Etruscan buildings are reconstructed with a recessed gable, especially monumental buildings. Unfortunately, the presence of these gables is hard to verify on actual buildings, since the tiles and architectural terracottas do not differ from those placed at the two falls of the roof. In the case of the Upper Building at Murlo it has been suggested that such an extra fall of the roof placed within a gable

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specifically comment on the supposed chimney from Veii.

<sup>456</sup> See the appendix, Cerveteri, Vigna Marini Vitalini.

<sup>457</sup> Andr en 1959-1960, esp. 52-54, figs. 21-22; Staccioli 1968a, 93-94; Staccioli 1968b, 296-297.

may have been used. The reason for this is the fact that both lateral simas and antefixes have been found (since the lateral sima would have been used on the long side of the building, the only room for antefixes would be the gable, thus a recessed gable must have been used). A recessed gable is also reconstructed in Rome, Castor and Pollux for the same reasons. So unless some falls had antefixes and others had lateral simas (which of course is possible) it is also quite possible that the antefixes were used within a gable and the lateral simas at the eaves of the roofs on the long sides. In other cases such a reconstruction is based on an analysis of the find spots of the architectural terracottas, e.g. in Building A at zone F in Acquarossa (*Fig. B18*). In Podere Tartuchino a recessed gable may be reconstructed because of the tiles in one end, which were found lying perpendicular to the remaining tiles (phase II, dated to 500-450 B.C.).<sup>458</sup>

When large antepagmenta are found this is often taken as an indicator of a recessed gable, such as Pyrgi Building A, dated to 490-480 B.C. (*Fig. B130*). For the different types of architectural terracottas see *Figs. 115-117*.

## ROOF CONSTRUCTION

### HUTS AND HOUSES WITH THATCHED ROOFS

Of course no remains of thatched roofs in Central Italy have been preserved. Thus our main evidence regarding the roof construction comes from the hut urns, other representations of early buildings, "modern huts", and tombs in the shape of buildings.

#### 1. Hipped roofs

Several of the oval and rectangular "modern" huts had a hipped roof, that is with sloped thatched ends instead of gables (often curved, *a schiana*, that is shaped like a donkey's back). The inclination of these roofs varies between 30° and 50°. All the roofs had large overhangs to protect the walls.

On all together 125 of the hut urns the shape of the roof can be determined. Almost all hut urns have a hipped roof. All roofs have a central ridge, which is sometimes curved, *a schiena*. On several urns the eaves are fairly flat or with a low pitch, while the upper part of the roof is steeper (for this see below). In chapter 3 we saw that the inclination of the roof varied from 23° to 52°, the majority (c. 76%) between 35° and 49°. Several of the hut urns have a vent hole in the gable.

The ground-plan of the hut urns does not seem to be of great importance for the roof construction, since hut urns with all types of ground-plans use a hipped roof.

Hipped roofs can be seen on two stelae from Tarquinia (cat. nos. 57-58) (*Figs. A54-A55*), dated to 9th or 8th century B.C. Other similar representations, though less securely identified as roofs, are the so-called capstones (see chapter 3) (*Fig. 21*), dated to the later part of the Early Iron Age and Orientalizing periods.

The early model from Satricum, probably to be interpreted as a hut (cat. no. 74) (*Fig. A68*), has a roof that is hipped at the front and two-faced or almost rounded at the back. The inclination is c. 25°.

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<sup>458</sup> The excavators suggest a hipped roof which is less likely since no oblique tiles were found.

The roof has a series of incised lines, interpreted as representing reeds, though it cannot be excluded that they represent small rafters. The model is dated to the fourth quarter of the 8th century B.C.

Several tombs of the Orientalizing period, cut out of the tufa, imitate the interior of huts (or houses) (see chapter 3). The tombs of type B clearly indicate thatched roofs. These may represent either houses or huts, but since the tombs only give a schematic rendering of the building it is not possible to determine whether a hut or a house is depicted. Since they are dated to the Orientalizing period and since the woodwork construction seen in some of the tombs seems to be fairly substantial, they should probably be regarded as houses (with a few exceptions - see below).

Most of these tombs have a hipped roof. The earliest representation of a hipped roof in a tomb is seen in Tomba delle Anatre at Veii, belonging to Prayon's type B<sub>1</sub> (*Fig. 50*), and thus more or less contemporary with T. Capanna (see below). Hipped roofs are also known in tombs at Cerveteri, belonging to Prayon's type B<sub>2</sub> (one of the earliest is T. delle Nave 1). The angles are less acute here than in the T. delle Anatre, almost creating "oval" gables (*umlaufende Walm*).<sup>459</sup> These hipped roofs usually have a fairly low inclination, probably because of the large work involved in cutting a high-pitched roof. The central ridge is wider than before.

In general most of the other hipped roofs in tombs are seen in the back part of the rear chambers, while the roof of the front part of the chamber is usually an ordinary two-faced roof.

## 2. Two-faced roofs

Several of the oval and rectangular "modern" huts had a two-faced roof with an inclination between 30° and 50°, and large overhangs to protect the walls.

In a few cases the urns seem to have a two-faced roof, which may be hipped at one end (*Figs. 12-13*).<sup>460</sup> These few urns are either rectangular or oval.

Two-faced roofs can be seen on a number of representations of buildings, but primarily from the 7th century B.C. onwards. From the Early Iron Age, however, we have the building on the stele from Bologna (cat. no. 65) (*Fig. A60*) with a fairly steep two-faced roof (36°-43°). The stele is dated to the mid-8th century B.C. On the model from Sala Consilina (cat. no. 73) (*Fig. A67*) is seen a smooth two-faced roof. The model is dated to 800-760 B.C.

A substantial amount of house models with a thatched roof is known from the 7th century B.C. From the first half of the 7th century B.C. the four bronze urns (cat. nos. 1-4) (*Figs. A1-A2*) and from the second half of the 7th century B.C. the clay urns from Cerveteri (cat. nos. 5-13) (*Figs. A3-A11*) all testify to buildings with a rectangular ground-plan and a two-faced and fairly steep roof, the majority between 30°-40°. Several of these have cross pieces on the ridge of the roof. These show that the early rectangular houses all had a thatched two-faced roof (see further chapter 3). Unfortunately only few houses with thatched roofs are known. These buildings are all rectangular. There is one exception,

<sup>459</sup> Prayon 1975, 168.

<sup>460</sup> Bartoloni *et al.* 1987, cat. nos. 54 and 180.

namely the *Casa del recinto* at Roselle which is square on the exterior and circular on the interior. This could have had a hipped roof, a conical roof, or even a two-faced roof.

A few tombs also point to a two-faced roof.<sup>461</sup> One of the earliest is Tomba della Capanna 11, belonging to Prayon's type B<sub>1</sub> (*Fig. 49*). The inclination of the roof is 43°-48°, while the walls are fairly low. The ridge is very narrow. This probably represents a hut.

Other tombs of type B<sub>1</sub> have a corbelled roof, but it is uncertain if this imitates a real roof. As mentioned above several of the tombs with a hipped roof have a two-faced roof at one end.

As we have seen both circular, oval and rectangular ground-plans were used for huts, though it is uncertain to what extent the shape of the ground-plan influenced the roof construction. Oval and rectangular huts used either hipped roofs or two-faced roofs. Oval and rectangular huts are often reconstructed with an "oval" roof (*Fig. 118*), that is without any gables or hipped ends, but it is often difficult to distinguish between a hipped roof without acute angles and an "oval" roof. The "oval" roofs are not attested from the hut urns, only from the Orientalizing tombs cut out of the tufa (see above). Oval huts are also reconstructed with two-faced roofs (*Fig. 119*).

### 3. Conical roofs

Conical roofs are only securely documented from "modern huts" (*Figs. 24-26*) and only used on circular huts. On the apex of the roofs of the "modern" huts is sometimes a small horizontal ridge. The conical roofs are normally very steep with an inclination of more than 45°.<sup>462</sup> No hut urns have a conical roof.

Thus based on hut urns, other models, "modern" huts, and the evidence from tombs hipped thatched roofs and two-faced thatched roofs are securely documented from the Early Iron Age onwards, but the hipped roof seems to have been much more popular.

Conical roofs are more problematical, since they are not documented from the hut urns, only from the "modern" huts. If the conical roofs were used, they would have covered a circular hut. Huts with circular ground-plans and a single central post (such as the ones from Sorgenti della Nova) may point to a conical roof, but a hipped roof is also a possibility (*Figs. 120-121*).<sup>463</sup> If the conical roof was used in the Early Iron Age, the roof would probably have been steeper than the hipped and the two-faced roof, around 45° or more, as are the roofs on the "modern" huts.

In general the inclination of the thatched roofs of huts varied between 30° and 50° (based on the evidence from the hut urns), but there was probably a tendency to use a lesser inclination (30° to 40°) than is used nowadays. As discussed in chapter 1 the problem with a low inclination is that the roof would be more susceptible to rot - on the other hand a low inclination would protect the roof from the wind and use less thatch.<sup>464</sup>

<sup>461</sup> See also Naso 1996, 359.

<sup>462</sup> Maffei, 112. For examples see e.g. Bartoloni, Beijer, De Santis 1985, pl. 9.1.

<sup>463</sup> Negroni Catacchio & Miari 1995, 524-525, figs. 4-5.

<sup>464</sup> For this see further K. Fagerström, *Greek Iron Age architecture*, *SIMA* 81, 1988, 101.

### The woodwork of the roof of huts

In general thatched roofs consist of a woodwork skeleton with "rafters" and "purlins", i.e. branches woven together, above which are laid layers of thatch or possibly more correctly thin branches and leaves like the "modern" huts, and not with a thick layer of fine reeds, as is used in Scandinavia today. Such a thick thatched roof is very heavy and would need a much more substantial woodwork construction.

Since the Etruscan roofs were very light, the posts and walls needed to support such roofs did not need to be very substantial. Evidence from excavated remains of huts points to fairly thin posts in the perimeter, thus the walls would not have been able to support much weight by themselves.

From the hut urns we have the inclination of the roof (see above) and the shape of the roof. Evidence from the preserved remains of real huts and the hut urns suggest a central beam, supported by one or more posts. The "classic" reconstruction is the one proposed by Davico of the Palatine hut (*Fig. 90,2*).<sup>465</sup> Here the central beam is supported by a centrally placed post, "rafters" rest on the central beam and a "tie-beam", supported by the posts within the wall, and "purlins" are attached to the rafters. In case of a double row of internal posts the central beam would rest on an upright short timber (a kind of king-post), which again rested on a lintel beam, placed on top of two opposite posts (*Fig. 118*). The upper part of the gable would have functioned as a vent-hole. The thatch was placed on the rafters and purlins (probably fastened by string as on modern Scandinavian thatched roofs). Extra thatch would have been placed on the ridge and ridge logs on top of this. These logs may be fairly short or may continue all the way down the roof.

From the Satricum excavations (hut GR VI, measuring 5.20 x 3.55 m) it is clear that small huts could be constructed with roofs resting directly on the walls constructed out of juxtaposed posts, i.e. without any internal or external posts for support<sup>466</sup> - a reconstruction originally suggested by Cozza (*Fig. 90,1*). A similar roof construction can be seen on the circular huts at Lavinium, hut A and G, dated to the 8th century B.C. Here a number of smaller posts next to each other constitute the wall and there is no internal support.<sup>467</sup>

On the hut incised on the stele from Bologna (cat. no. 66) (*Fig. A61*), dated to the mid-8th century B.C. an interesting roof construction can be seen. The roof is separated from the lower part of the building by an incised line. The roof is further divided into four sections by an incised line through the centre and two oblique lines dividing each half of the roof. These lines must represent the woodwork of the roof. This probably represents an early kind of truss construction (see below) with two oblique supports, a system otherwise not documented in Central Italy.

On the building to the right on the Verucchio throne (cat. no. 86) (*Fig. A80*) is a series of rounded objects beneath the roof, probably representing the end of the (circular) purlins. In the centre of the

<sup>465</sup> *Rivista di Archeologia* 38, 1950-1951, 29ff.

<sup>466</sup> Maaskant-Kleibrink 1991, 74-75.

<sup>467</sup> Maaskant-Kleibrink 1991, 75 (with further references).

gable is a king-post with a circular decoration cut in the centre, which also suggest an early truss construction. On either side of this are vertical sticks. Below the triangular gable is a curious construction resembling a grate with thin horizontal beams with vertical sticks in between. It is not clear what the function of this grate is, perhaps ventilation (?). The throne is dated to the mid-7th century B.C.

In some cases it is possible that the vertical posts (or thick branches) of the walls were bent (by means of steam) and continued upwards to form the roof, the posts/branches on either side being connected by a ridge beam. Such a construction is known from numerous anthropological examples, and some of the hut urns may in fact support such a construction. Many hut urns have a fairly steep roof, but very flat eaves. The reconstruction of a circular hut with a central post suggested for Sorgenti della Nova with such continuing posts/branches may explain what the hut urns depict (*Fig. 121*). In order to get a large enough overhang to protect the walls from rain water, it was necessary to bent the roofs at the eaves.<sup>468</sup> For the huts from Sorgenti della Nova this is done by interweaving branches at the point where the posts/branches are bent to form the roof, thus forcing the eaves to bend outwards.

In a few cases porches could have flat roofs as suggested from the vestibules/anteroom of several tombs e.g. San Giuliano, T. Cima (*Fig. 60*).

### **The woodwork of the roof of houses with a thatched roof**

The woodwork of roofs of the houses of the Orientalizing period must have differed from the woodwork construction of a two-faced roof on a hut. For terminology see vol. 2 and *Fig. 122*. As we saw for the huts, the roof rested primarily on internal posts. Regarding houses with thatched roofs we have no evidence for such posts, neither from the few excavated remains of buildings nor from the house tombs. The foundations of houses were of stones the walls were probably thicker and with a thicker timber construction, and the house would thus be able to carry a heavier roof/heavier rafters, purlins and beams, and possibly also a thicker layer of thatch. In several tombs of the Orientalizing period the woodwork construction for the hipped roof can be seen (type B<sub>2</sub> - see also chapter 3). The best examples are T. della Nave 1, which is also the earliest hipped roof in Cerveteri (*Fig. 51*). The roof is constructed with a fairly narrow ridge beam, ending in a disc. On each fall are thin, rather crude, rafters, sloping from the ridge and radiating from the disc. In T. d. Animali Dipinti the roof is more advanced with a two-faced roof with both rafters and purlins, ending at one end in a hipped roof with rafters radiating from a disc and horizontal purlins, running the circumference (*Fig. 52*). The roof is supported by a triangular gable with a tie beam, a king-post, another two vertical supports near the end of the gable, and a horizontal beam across the gable, thus resembling a truss construction (*Fig.*

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<sup>468</sup> This is exactly what is wrong with the reconstruction of House I on the acropolis of San Giovenale (*Fig. B165*).



123).<sup>469</sup> A similar system is seen in other tombs, e.g. T. della Campana 1 (*Fig. 97*). It is possible that the roofs of these tombs more should be considered oval roofs than hipped roofs.

In some tombs, such as T. A/T. dei Soffitti Intagliati in Vulci, Necropoli dell'Osteria, (*Fig. 55*) the roof is constructed with a ridge beam terminating at each end in a disc, and with rafters radiating from the discs as well as from the ridge. In at least some case the discs and columens were painted, as can be seen from the T. Sorbo I<sup>470</sup> and T. dei Denti di Lupo.<sup>471</sup>

The ridge beams as well as the rafters and purlins became more and more substantial during this period.

Thus in a hipped roof/hipped end the woodwork construction would consist of a central beam ending in a kind of wooden disc, from which rafters radiate. Purlins would have been attached either to these, or in the case of a light roof perhaps been interwoven between these. Regarding the wooden discs a system similar to the one reconstructed for the thesaurus at Foce del Sele, dated to 570-560 B.C., was probably used (*Fig. 124*).<sup>472</sup>

If the truss system was not used, it would also have been possible to have a transverse beam/tension beam carrying the roof, resting on top of two posts in opposite walls, thus spanning the width of the roof (a construction used in e.g. Danish farmhouses with thatched roofs (*Fig. 99*). Such constructions were placed at intervals (like trusses).

Logs or cross pieces were used to weigh down the thatch on the ridge as on huts. This can be deduced from hut urns and later models, such as on the bronze house urn from Civita Castellana (cat. no. 2) (*Fig. A1*). At either end of the gables the logs or more probably barge boards project above the apex, crossing each other, and along the ridge are seven pairs of ridge logs or crosspiece which cross each other in the same manner, but do not reach the eaves as the rafters do.

## BUILDINGS WITH TILED ROOFS

In general the change from thatched roofs to tiled roofs seems to have taken place during the end of the first half of the 7th century B.C.,<sup>473</sup> or in the third quarter of the 7th century B.C. at the latest. Thatched roofs were still very popular in the 7th century B.C. After the introduction of the tiled roof the popularity of the thatched roof slowly decreased, but thatched roofs must still have been used widely on buildings of lesser importance in the 6th century B.C. and possibly throughout most of Antiquity - in fact, as we have seen, thatched roofs have been used into modern times.

<sup>469</sup> A similar support system is e.g. seen in T. Mengarelli (Colonna 1986, fig. 273; Naso 1996, 29-34).

Macintosh Turfa & Steinmayer 1996, 27-28 discuss these roof construction and also conclude that they depict truss constructions, but apparently they do not realize that they depict thatched roofs, not tiled roofs (since they conclude (pp. 20-21) that the use of the truss was connected to the tiled roof).

<sup>470</sup> Naso 1996, 29-34, cat. no. 1.2.1.1, figs. 6, 23.

<sup>471</sup> Naso 1996, 38-40, figs. 11-13, tav. IV.2-3.

<sup>472</sup> Naso 1996, 306 n. 465.

<sup>473</sup> As also suggested by Bartoloni *et al.* 1987, 143.

A large number of buildings in the Orientalizing and Archaic periods have tiled roofs. This type of tiled roof - with modifications - is still in use in Italy today.

As opposed to thatched roofs tiled roofs employ a much lower pitch. This can be inferred partly from building remains, partly from experiments. The building remains consist of several architectural terracottas such as raking simas and oblique friezes, from which the inclination can be measured (*Fig. 125*). As examples can be mentioned the roof of Pyrgi building B, dated to the late 6th century B.C., where the inclination was 15°, Pyrgi building A, dated to the first half of the 5th century B.C., with an 18° inclination, Veii, Piazza d'Armi (2nd phase, dated to around 575 B.C.) with an 18° inclination, Velletri, dated to 540-530 B.C., with a 17° inclination, Satricum, temple II, dated to 500-480 B.C., with a 12° inclination, and S. Omobono, Rome, phase 2, dated to 540-530 B.C., with a 15°-16° inclination. At Portonaccio, Veii, a revetment with an inclination of 19° was found, which probably shows the inclination of the roof of the temple.<sup>474</sup> The Belvedere temple at Orvieto had in its later phase an inclination of 17°.<sup>475</sup> Evidence from Acquarossa suggests that the inclination was between 15°-25°.<sup>476</sup> From these remains it is clear that the Etruscan tiled roof of the Archaic period and later normally used a very low inclination, between 12° and 20°.<sup>477</sup> A few smaller early buildings used a higher inclination, such as 26.5° on the so-called Ionic roof from Satricum (probably decoration on the *oikos*/temple 0). The supposed inclination of the South-East Building at Murlo to 30°-35° I do not find likely (see the appendix).<sup>478</sup>

Later Etruscan roofs have an inclination between 13° and 25°, and Roman roofs between 18° and 23°.<sup>479</sup> Modern tiled roofs in Italy with pan tiles and cover tiles normally have an inclination around 20°.<sup>480</sup> The same low pitch can be seen on numerous building models from the Archaic period (see chapter 3). Many of these have a rendering of pan tiles, cover tiles, and ridgepole tiles on the roof, thus there is no doubt that they represent tiled roofs.

### **Tiles**<sup>481</sup>

The Etruscan tile system consisted of three basic types of tiles (*Figs. 115-117*):

<sup>474</sup> F. Melis in *Santuari d'Etruria* 1985, 105.

<sup>475</sup> S. Stopponi in *Santuari d'Etruria* 1985, 81.

<sup>476</sup> Wikander 1993, 123.

<sup>477</sup> For the inclination of a tiled roof see Andrén 1940, lxvii; Andrén 1959-1960, 42; Colonna 1986, 493. Andrén suggests an inclination between 12° and 20°.

<sup>478</sup> This fragment is also discussed by Turfa Macintosh & Steinmayer 1996, 12 n. 13, who are also sceptical (they seem to believe that the fragment should be associated with the Upper Building).

<sup>479</sup> Andrén 1940, lxvii; Andrén 1959-1960, 42.

<sup>480</sup> A.G. Rook, 'Tiled roofs', in: A. McWhirr (ed.), *Roman brick and tile. Studies in manufacture, distribution and use in the western empire*, *BAR International Series* 68, Oxford 1979, 295.

<sup>481</sup> For tiles in general see Ö. Wikander 1988, 203-216, Ö. Wikander, 'Archaic roof-tiles - the first generation', in *Proceedings of the first international conference on Archaic Greek architectural terracottas*, Athens 1988, *Hesperia* 59.1, 285-290; Ö. Wikander, 'Archaic roof-tiles: the first (?) generation', *OpAth* 19, 1992, 151-161.

1. Pan tiles. These are flat tiles with flanges on either long side. Wikander has divided tiles into two main groups: Type I consists of tiles with simple flanges, and type II consists of tiles with notches at either end of the flanges to interlock with the next tile (see the illustrations in the appendix p. 3).<sup>482</sup> Type I is considered the earliest type. The tiles measure c. 50 x 60 cm (as an example can be mentioned the tiles from Acquarossa: tiles of type I were 60 x 50 cm and tiles of type II 61 x 47 cm, though a few were larger (e.g. Murlo, the South-East Building 53 x 75 cm)).<sup>483</sup> The weight of the tiles was between 10-15 kg.

A specific type of pan tiles are the eaves tiles, the lowest tiles which projected from the roof. The underside often had a painted decoration consisting of a border with a floral or geometric design (documented from the first half of the 6th century B.C.). This border suggests that the projection/overhang of the eaves tiles varied between 15-30 cm.<sup>484</sup> The largest border is known from an eaves tile in Fidenae (40 cm)<sup>485</sup> and one from Ardea, Casalinnaccio (40.5 cm).<sup>486</sup> The overhang probably extended further than that (see below).

In Acquarossa tiles with the entire underside painted have been found in zone G.<sup>487</sup> These must have been placed in the overhang of the gable.<sup>488</sup>

Several pan tiles have nail-holes through the flanges. It seems likely that these could have been used as eaves tiles and thus stop the tiles from sliding from the roof. This is also supported by the *Lex parieti faciundo* from Puteoli, dated to c. 150 B.C., which states that the pan tiles closest to the eaves should be fastened with nails.<sup>489</sup> That the lowest row was not always nailed to the wooden members can be seen from Acquarossa, where only one third of the houses have produced such evidence.<sup>490</sup>

2. Cover tiles. These are semi-circular tiles which were used to cover the space between the two pan tiles to make the roof watertight. In order to prevent the wind from lifting the roof, the lowest cover tiles needed to be closed, either by an antefix (see below) or a lump of clay. Cover tiles were interlocked into the next tile, either by a notch, or simple by making the diameter of the tile smaller at one end. The size of the cover tile varied, the width from c. 10 to 20 cm, the length from 50 to 65 cm. The weight was between 2-3 kg.

3. Ridgepole tiles. Along the ridge a series of large semi-circular ridgepole tiles could be placed. Like the cover tiles ridgepole tiles were interlocked into the next tile, either by a notch, or simple by making the diameter of the tile smaller at one end. Some ridgepole tiles had semi-circular openings on

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<sup>482</sup> O. Wikander 1986.

<sup>483</sup> Nielsen 1987, 115, fig. 82.

<sup>484</sup> Ö. Wikander 1993, appendix 5.

<sup>485</sup> M. De Filippis in *Roma dei Tarquinia* 1990, 157.

<sup>486</sup> Stefani 1954, 18, type 1, fig. 17; Wikander 1986, appendix 5.

<sup>487</sup> See e.g. Östenberg 1975, fig. 212.

<sup>488</sup> As can be seen from the reconstruction in Östenberg 1975, fig. 206 (though the inclination of the roof is far too steep).

<sup>489</sup> *Tegulas primores omnes in antepagmento ferro figito* (CIL I<sup>2</sup> 698). For this see Ö. Wikander 1993, 124.

<sup>490</sup> Ö. Wikander 1993, 124.

the lower edge to insert the upper cover tiles. In a few cases an "extra tile" was added between the cover tiles and the ridgepole tiles consisting of a flat tile with semicircular openings, such as from Murlo.<sup>491</sup>

In exceptional cases nailholes have also been found in cover tiles, used to fasten the lowest cover tile to the wooden members (because of the large weight of these due to the antefix). Such holes are attested from a few tiles in Acquarossa.<sup>492</sup> In a few large antefixes with *nimbus* from the Late Archaic period a notch in one or both sides was used to fasten the antefix to the flange of the pan tile.<sup>493</sup>

A few specific types of tiles were also used:

4. Skylight tiles.<sup>494</sup> Skylight tiles of the Archaic period are seen in Acquarossa (see illustration in appendix p. 3) (zone B, house C, dated to 575/525 B.C. (*Fig. B7*); zone F, building A-C, dated to 550 B.C.), Cerveteri, Vigna Parrocchiale, of uncertain date, both probably Archaic, Marzabotto, probably dated to 500-475 B.C., Roselle, *Casa dell'Impluvium*, room V, dated to the second half of the 6th century B.C. (*Fig. B152*), San Giovenale (two fragments from a single tile, belonging to one of the houses on the Borgo and another from the second phase of House I on the acropolis, dated to c. 600 B.C.), Lavinium, the building near the 13 altars, from either room I or II, dated to the first half of the 5th century B.C., and Satricum, *oikos*/building H, dated to the early 6th century B.C., Satricum, courtyard buildings A and B, dated to 580-560 B.C.

5. Angular tiles/*compluvium* tiles.<sup>495</sup> A few examples of *compluvium* tiles - so well-known from Roman houses from e.g. Pompeii - exists, namely the *Case dell'impluvium* at Roselle, dated to the second half of the 6th century B.C. (*Fig. B152*), at Marzabotto, dated to 500-475 B.C. (*Figs. B80-B81*), and at Lavinium, Vigna Nuova (in relation to the courtyard buildings, though the date of the *compluvium* tiles is uncertain).

Since these tiles are diagonally cut, it cannot be excluded that such tiles could have been used for hipped roofs, but both in the case of the *Case dell'impluvium* at Roselle and at Marzabotto do the ground-plan of the buildings suggest a *compluvium/impluvium* system.

A single angular tile fragment is known from an Archaic house, namely Acqua Acetosa Laurentina, house V,1. According to the excavator it was of the same type as the later ones used at Ardea, thus he suggests that the roof was hipped. Unfortunately the fragment is not illustrated. Considering the plan of the building, the angular tile more probably could have been used for a *compluvium* above the courtyard or as joining tiles between the two flanks of the building.

The *compluvium* system has been known from tombs (T. Mercareccia in Tarquinia, dated to c. 300 B.C.<sup>496</sup> and T. dei due ingressi in Vulci, dated to the 4th century B.C. (*Fig. 126*).<sup>497</sup> A Hellenistic urn

<sup>491</sup> L.R. Lacy in *Case e palazzi d'Etruria* 1985, 100, no. 240 (ill.).

<sup>492</sup> Ö. Wikander 1993, 124.

<sup>493</sup> O. Wikander 1993, 124-125 (with examples).

<sup>494</sup> Ö. Wikander 1983; Ö. Wikander 1986, appendix 4.

<sup>495</sup> Ö. Wikander 1993, 45.

<sup>496</sup> Boëthius 1967, 7 and esp. 12-13; J.-R. Jannot, 'La tomba de la Mercareccia à Tarquinia', *RBelgHist* 60, 1982, 101-135.

from Chiusi in the shape of a building on a podium (*Fig. 127*), now in Berlin,<sup>498</sup> may be interpreted as representing Vitruvius description of an "extra" roof above the compluvium (Vitr. 6.3.2), but as discussed above this does not necessarily mean an extra storey.

6. Corinthian combination tiles. These are only found at Satricum, *oikos* H (only small fragments), dated to the early 6th century B.C.

A triangular cover tile of a "Corinthian type" was found during the excavations at S. Omobono, probably belonging to a building in the vicinity.

### **Tile production**

A large amount of clay was needed for tile production. Wood was also needed in large quantities, not only for the woodwork construction of the walls and roof, but also for firing the tiles. Several calculations on this matter have been made.<sup>499</sup> For instance for Satricum, temple I, c. 1440 pan tiles would have been used. Just for these tiles an amount of c. 16-17 tons of clay was needed. To make the roof of Pyrgi building B at least 20 tons of clay was needed. To this should be added the cover tiles and the architectural terracottas.

### **Types of roofs**

1. Two-faced roofs: Tiled roofs in the Archaic period are usually two-faced, as can be seen from numerous tombs and building models representing tiled roofs. The many finds of ridgepole tiles also support this. It is normally assumed that the pitch would be symmetrical, but this need not be the case. In the first phase of the building at Podere Tartuchino the find of a posthole within the building, not centrally placed, seems to suggest that the pitch was asymmetrical (*Fig. B105*). Asymmetrical roofs, though rare, are seen on the tomb from Tuscania, Pian di Mola (*Figs. 33-34*) and a few tombs from Tarquinia (T. Pulcella and the Tomb of the blue demons).<sup>500</sup> A shed roof is a possibility on buildings, where no evidence of ridgepole tiles has been found, but the absence of ridgepole tiles is not conclusive. Cover tiles could have been used instead, or a construction often used on modern Italian roofs with a single row of pan tiles with cover tiles in between, placed perpendicular to the axis of the ridge (*Fig. 128*). Such a system is also suggested for the roofs of both phases of the building at Podere Tartuchino (*Figs. B105 and B108*).

2. Hipped roofs were probably not used for tiled roofs in the Archaic period with the possible exception of house V,1 at Acqua Acetosa Laurentina, though this is uncertain (see also above). A few later indications of hipped tiled roofs exist, however, as is seen on a few building models from Chiusi

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<sup>497</sup> M. Moretti (ed.), *Vulci*, Novara 1982, 11-12; A.M. Sgubini Moretti, *Vulci e il suo territorio*, Rome 1993, 105-106.

<sup>498</sup> *Welt der Etrusker* 1988, 317-318, cat. no. D 5.13 (ill.).

<sup>499</sup> For a discussion of this see Rendeli 1989, esp. 56-57; M. Rendeli in *Roma dei Tarquini* 1990, 138-139.

<sup>500</sup> Perkins & Attolini 1992, 111.

(Fig. 127).<sup>501</sup> Diagonally cut tiles are known from Ardea, but dated to the 4th century B.C.<sup>502</sup> According to Festus (p. 64 L) such a tile was called *tegula deliciaris* (*delicia est tignum, quod a culmine ad tegulas angulares infirmas versus fastigatum collocatur; unde tectum deliciatum et tegulae deliciares*).<sup>503</sup>

3. Flat roofs, such as they are known from Greece, are not known in Etruria in the Archaic period. Boëthius has argued that flat roofs existed in Etruria.<sup>504</sup> This assumption was based partly on the fact that several house tombs had flat roof, but since these only show the flat ceiling (see below), this cannot be used as an argument for the roof construction. Staccioli suggested that a possible flat roof can be deduced from a votive model from Fratte di Salerno, dated to the first half of the 3rd century B.C., but since the model is badly preserved, this conclusion is uncertain.<sup>505</sup> Colonna di Paola has suggested that a passage in Livy 5.20 in which is told that during the conquest of Veii women and slaves threw rocks and tiles from the roofs at the Romans may be interpreted as the roofs being flat.<sup>506</sup> Even if the event recorded is correct, the roofs may not necessarily have been flat - roofs with an angle of between 15° and 20° would have been sufficiently flat for people to stand on. The fact that they threw tiles further argues against flat roofs, since flat roofs would not have been tiled. Nor do we have any remains of buildings suggesting flat roofs, and flat roofs would not benefit from the weather in Italy with its heavy rainfalls during the fall, winter, and spring.

#### **The origin and development of the tiled roof**

The origin of tile-making has been debated. Most scholars assume that the concept came to Central Italy from Greece. The earliest tiles from Greece<sup>507</sup> from the historical period are usually said to be from Corinth ("the older Apollo temple") (Fig. 129). Their date has been much debated: most scholars believe that they are from 680 B.C. or even 700 B.C.,<sup>508</sup> while others prefer a date between 675-650 B.C.<sup>509</sup> On the basis of an analysis of the pottery in connection to the temple Salmon has lowered the

<sup>501</sup> See e.g. Patroni 1941, figs. 343, 348, 349.

<sup>502</sup> Andr n 1959-1960, 44, fig. 16; Andr n 1961, 55, n. II:5, 60, tav. XXIII, XXV. For a discussion of this type of tiles see Castagnoli 1986.

<sup>503</sup> For a discussion of this see also Castagnoli 1986.

<sup>504</sup> Bo thius 1967, 9. He further refers to Vitruvius description of *atrium* houses with flat roofs, but this is hardly relevant for the Archaic period in Etruria.

R. Meiggs, *Trees and timber in the ancient Mediterranean world*, Oxford 1982, 222 also suggest that flat roofs were used.

<sup>505</sup> Staccioli 1968a, 64-65, cat. no. 58, tav. LXV.

<sup>506</sup> Colonna di Paola 1978, 15.

<sup>507</sup> Tiles are known from EH and the Mycenaean period. There is no evidence for a direct continuity - there is more than 500 years between the tiles from the protohistoric periods and the tiles from the 7th century B.C.

<sup>508</sup> E.g. J. Heiden, *Korinthische Dachziegel*, Frankfurt am Main 1987, 20 dates the tiles to 680 B.C. while the excavator, H. Robinson dates the construction of the temple to c. 700 B.C. or shortly thereafter ('Excavations at Corinth: Temple Hill, 1968-1972', *Hesperia* 1976, 203-239 (especially 231-235) - for the tiles see fig. 9)). See also H. Robinson, 'Roof tiles of the early seventh century B.C.', *AM*, 99, 1984, 55-66 (here he lowers the date to approx. 680 B.C.). This date is also supported by A. Mazarakis Ainian, *From rulers' dwellings to temples. Architecture, religion and society in early Iron Age Greece (1100 - 700 B.C.)*, *SIMA* 121, Jonsersed 1997, 156.

<sup>509</sup> Winter 1993, 12.

date to 650 B.C.<sup>510</sup> Several ancient authors also claimed that tiles were invented in Corinth.<sup>511</sup> Tiles from other sites in Greece (Isthmia, Perachora, and Delphi) are dated to almost the same period. Recently it has been suggested that stamped tiles from Laconia are as early as the Corinthian tiles and that they go back to the first half of the 7th century B.C. The Laconian evidence, however, is not certain, since Laconian tiles have not been found in stratified contexts from before the 6th century B.C.<sup>512</sup> Tiles are not known in Asia Minor from before 600 B.C.

The earliest tiled roofs in Etruria seem to be dated around the mid-7th century or slightly later (e.g. Tarquinia, Murlo and Acquarossa).<sup>513</sup> Tiles in Southern Italy and Sicily are from around the same period (e.g. Himera and Locri). It is possible that the use of tiles was introduced from Greece and then further developed in Central Italy (in this case tiles probably spread through Italy in less than two generations).<sup>514</sup> On the other hand it is not totally unlikely that tiles were developed separately in Italy and Greece:<sup>515</sup> the tiles from Italy are not much later than the tiles from Greece, and the Etruscan system seems to be an individual system, even if the pan tiles are flat like the Corinthian pan tiles and the cover tiles curved like the Laconian cover tiles.<sup>516</sup> The Corinthian combination tiles are unknown in Etruscan Italy with the exception of the small fragments found at Satricum, *oikos* H, dated to the early 6th century B.C. Skylight tiles are fairly common in Central Italy. The origin of these tiles is discussed and they are usually considered a Greek invention. The only two examples of 6th century B.C. Greek skylight tiles are found west of the Greek mainland (on Corecya and on Sicily) - unfortunately none of them can be dated more precisely.<sup>517</sup> In Central Italy they are known from around 600 B.C. or the early 6th century B.C. (see above), which may suggest that they were a (Central) Italic invention.<sup>518</sup>

The inspiration for tiles could have come from clay added on top of the thatch as suggested above - this I find much more likely than the idea suggested by Ridgway and Serra Ridgway that unbaked clay on top of wooden planks, sealed with pitch, could have been a "prototype" for a tiled roof.<sup>519</sup>

Regarding the Etruscan tiles it is important to note that architectural terracottas were an integrated part of the tiled roof from the start - the earliest tiles so far known from Italy (from Murlo and

<sup>510</sup> J.B. Salmon, *Wealthy Corinth. A history of the city*, Oxford 1986, 59-60.

<sup>511</sup> Cic. *Rep.* 2.19.34; Cic. *Tusc.* 5.109; Dion. Hal. *Ant. Rom.* 3.46; Pliny *HN* 7.197; Paus. 9.8.3-7.

<sup>512</sup> R. Felsch, 'Further stamped roof tiles from Central Greece, Attica, and the Peloponnese', in: *Proceedings of the first international conference on Archaic Greek architectural terracottas*, Athens 1988, *Hesperia* 59.1, 301-323.

<sup>513</sup> For references see Ö. Wikander 1988, 206; Naso 1996, 359.

<sup>514</sup> Ö. Wikander 1988, 206.

<sup>515</sup> Ö. Wikander 1988, 206 (with further references).

<sup>516</sup> The system of the early Corinthian pan tiles was, however, in itself a mixture since only the eaves tiles were flat, while the rest were semi-circular in section like the Laconian tiles.

<sup>517</sup> Ö. Wikander 1983, nos. 14-15 and p. 94 n. 31; Ö. Wikander 1986, appendix 4.

<sup>518</sup> Wikander refrains from placing the origin of the skylight tiles (Ö. Wikander 1983). According to his material the ones from central Italy date from the mid-6th century, but since his paper the new tiles in Satricum and the ones from House I on the acropolis in San Giovenale move the date back to the early 6th century B.C.

<sup>519</sup> Ridgway & Serra Ridgway 1994, 8.

Acquarossa) are combined with architectural terracottas. As opposed to that architectural terracottas apparently were not an integral part of the earliest Greek tiled roof, since neither the early temples at Corinth, Isthmia, nor Perachora employed architectural terracottas. The early tiled roofs using the Corinthian system are usually hipped roofs. This construction naturally does not need revetments to cover the end of beams etc. As mentioned above tiled hipped roofs do not seem to have been used in Etruria in the Archaic period.

On the other hand the Laconian roof system is much closer to the Etruscan system, because it uses the same type of cover tiles and a two-faced roof. As for the Etruscan tiled roof architectural terracottas would be needed for practical reasons.

Finally the possible evidence for Early Iron Age tiles in Etruria should be mentioned. At the cemetery of Quattro Fontanile at Veii, a few pan tiles were used to cover *loculi* in tombs, dated to the period Villanovan II, i.e. c. 770-730 B.C.<sup>520</sup> At least in two of the tombs there is no sign of any later disturbance. If this is correct, these tiles are the earliest tiles in Etruria, but until further investigation they remain uncertain.<sup>521</sup> A similar use of tiles is known from the Archaic period, e.g. also in Quattro Fontanile<sup>522</sup> and from the Orientalizing period in Nepi.<sup>523</sup>

All in all the evidence points to a local development of tiles in Central Italy and I consider it quite likely that tiles developed from clay used on thatched roofs.

### **The weight of an Etruscan tiled roof, the overhang, and the span involved**

The weight of Etruscan tiled roofs has been estimated. The weight of the tiles varied from 11.5 to 15 kg. The average size was c. 60 x 50 with a thickness of 2.5 cm. The weight of the pan tiles alone would be around 40 kg per m<sup>2</sup> according to Rendeli,<sup>524</sup> while Ö. Wikander suggests 50-70 kg (including cover tiles which weighed 2-3 kg,<sup>525</sup> while the calculations of Macintosh Turfa &

<sup>520</sup> *Fossa* tomb with *loculus*, Tomb CC I alpha (*NdS* 1963, 272, figs. 45, 50, 53). The tomb contained among other things impasto cups and a bronze fibula *ad arco seppeggiante*. There is no drawing of the tiles, but the size (59.2 x 43 cm) are similar to the Archaic ones from tomb NN OO 16 (see below).

*Pozzo* tomb with *loculus*, Tomb FF GG 18 (*NdS* 1963, 188-191, figs. 55a, 73-75). This tomb has been robbed. On one side the tomb overlaps with *fossa* tomb FF 17-18. The gap in the wall is filled with two pan tiles. Both tombs dated to the Villanovan period II. The tomb contained impasto pottery. The tiles may originate from the tomb, though this is not certain. They are larger than the other tiles (69.1 x 51.2 cm).

For a discussion of these tiles see Damgaard Andersen & Toms forthcoming.

<sup>521</sup> These tiles are discussed in H. Damgaard Andersen & J. Toms, 'The earliest tiles in Central Italy ?' in L. Karlsson & R. Brandt (eds.), *Proceeding of the symposium "From huts to houses - transformation of ancient societies"*, Rome, 22-24 September 1997, *OpRom* forthcoming. See also chapter 3.

<sup>522</sup> *Fossa* tomb NN OO 16 (*NdS* 1963, 262-268, figs. 113, 124, 125, 127-129). The tomb contained black-figured pottery and bucchero. The size of the tiles are 59.4 x 42.4 cm and 59.7 x 43.7 cm.

From the *fossa* tomb BB 5 a tile is also known (incomplete, 53.3 x 33.2 cm), but since the tomb was violated in Antiquity this evidence cannot be used (*NdS* 1970, 206-208, figs. 15-17).

<sup>523</sup> In Tenuta Franca. See G. Cifani & M. Munzi, 'Considerazione sugli insediamenti in area falisca. I periodi arcaico e tardoantico', in N. Christie (ed.), *Settlement and economy in Italy 1500 BC - AD 1500*, Oxford 1995, 389.

<sup>524</sup> M. Rendeli in *Roma dei Tarquini* 1990, 138-139.

<sup>525</sup> Ö. Wikander 1986, 70.



Steinmayer is based on a weight of 60 kg.<sup>526</sup> The weight of the timber is calculated as 40%, that is approximate 85 kg pr. m<sup>2</sup>. In order to estimate the size of the beams used the joining cuts in preserved Greek stone mating pieces may also be used.

M. Guaitoli has calculated the weight of the roof of the building near the 13 altars at Lavinium (*Fig. 130*).<sup>527</sup>

The overhang of the roof has been widely discussed.<sup>528</sup> As we saw above the painted border on the eaves suggest that the eaves projected at least 40 cm. Considering the clay walls on many buildings the overhang was probably larger, at least 0.5 m (this equals the length of one tile minus overlap). The evidence from Acquarossa, zone E, suggests an overhang of 0.5 to 1 m, since deep water channels cut into the bedrock along one side of the house at this distance.<sup>529</sup> The overhang for Acquarossa, zone F, Building A-C has been estimated to more than 1 m.<sup>530</sup> Macintosh Turfa & Steinmayer suggest an overhang of two metres for larger buildings, such as Murlo, the Upper Building.<sup>531</sup>

It is often claimed that a large overhang can be seen on models,<sup>532</sup> while in fact most models only have a moderate overhang (with the exception of the cippi from Castel D'Asso and Tuscania, both dated to the Late Archaic period (cat. nos. 61 and 64) (*Figs. A58-A59*)).

The size of the timbers used is hard to determine. The large weight of the tiled roof suggests heavy timbers, especially for the central ridge beam (as can also be seen from the imprint of the beam in Murlo, the South-East Building). Literary sources also suggest that the Etruscans used very heavy beams.<sup>533</sup> Evidence from the tiles with painted undersides from Acquarossa, zone G, suggests that the thickness of the rafters were between 6-13 cm.<sup>534</sup> The evidence from the two most well-preserved skylight tiles at Acquarossa suggest that the width of the rafters did not exceed 17.5 and 23.5 cm, respectively.<sup>535</sup> This fits well with the estimates for Greek rafters provided by Hodge (6 to 17 cm).<sup>536</sup>

At Satricum, *oikos* H, dated to the early 6th century B.C., a combination of an antepagmentum and an akroterion was found, consisting of a disc with a volute above. On the reverse side of the disc was a raised border, which must have covered a circular beam (either the ridge beam, purlins or the wall plates). Considering that the disc was only 13.5 cm in diameter, they most likely covered purlins.

<sup>526</sup> Macintosh Turfa & Steinmayer 1996, 2.

<sup>527</sup> M. Guaitoli, 'Urbanistica', *Archeologia Laziale* 6, *QArchEtr* 8, 1984, 378.

<sup>528</sup> See Ö. Wikander 1993, 123-124; Macintosh Turfa & Steinmayer 1996.

<sup>529</sup> Ö. Wikander 1988, 123.

<sup>530</sup> Olofsson 1984, 72.

<sup>531</sup> Macintosh Turfa & Steinmayer 1996, 23 n. 36.

<sup>532</sup> E.g. C. Wikander 1988, 51 (with further references).

<sup>533</sup> Vit. 3.3.5.

<sup>534</sup> Ö. Wikander 1993, 122.

<sup>535</sup> Ö. Wikander 1993, 122.

<sup>536</sup> Hodge 1960, 61, 64, 68, 71. See also Wikander 1993, esp. n. 142.

The size of the central beam may be inferred from the gorgoneion antepagmentum from Murlo, the Upper Building (width 30-35 cm; preserved height c. 35 cm),<sup>537</sup> though the antepagmentum may have been larger than the beam itself. Other antepagmenta also suggest large beams, such as the antepagmenta from Acquarossa (max. width 23 cm).<sup>538</sup> The largest Archaic antepagmentum is the one with the Seven against Thebes from Building A at Pyrgi, measuring 1.3 x 1.4 m, but the central beam was hardly this big. In general the ridgepole antepagmenta seem to have been slightly wider than they were high.<sup>539</sup>

Macintosh Turfa & Steinmayer 1996 has used the height of the revetment plaques to establish the size of the architrave.<sup>540</sup> For this see below.

Regarding most buildings the span was fairly modest (see *Fig. 125*). In Acquarossa there was no fixed rule, but internal walls seem to have been inserted if the span was more than c. 5 m.<sup>541</sup> In Acquarossa these internal walls were always placed at right angles to the ridge. Double walls (see above on partition walls) could also be used to further stabilize the roof.

For larger buildings the problem was of course greater. The largest roofed building was the one on the Capitoline Hill in Rome. The podium measured 60-62.16 x 51-53.50 m and the building probably only slightly less. The building has been restored with three cellae, a deep pronaos with three rows of six columns. Along each of the sides of the cella was a row of three columns. The interval between the columns is estimated to 7.85 m in the width and 10.46 m in the length. In order to carry the roof large beams (probably oak) with a minimum length of 7.85 and 10.46 would have been needed and considering the weight of the roof they must have been of substantial dimensions.

### **The woodwork of the roof of houses with a tiled roof (*Fig. 122*)**

The roof construction of a tiled roof is basically different from that of a thatched roof, primarily because of the large weight of the roof. The main problem is to avoid the weight of the roof from pressing the walls outwards. Larger and more substantial beams were used, and the technical aspects of the roof construction were much more complicated and required a great technical skill.<sup>542</sup>

In excavations only few indications of the timber work are found. As an example can be mentioned the evidence from the South-East Building at Murlo. The large central ridge beam, which fell to the ground during the fire of the building, left an impact on the clay floor. At Roselle, *Casa a due vani*, a fragment of a wooden beam was found. At Podere Tartuchino charcoal imprints of the rafters were found in the floor (for this see further below).

<sup>537</sup> L.R. Lacy in *Case e palazzi* 1985, 115-116, no. 337.

<sup>538</sup> C. Wikander 1988, 53 n. 137.

<sup>539</sup> Macintosh Turfa & Steinmayer 1996, 17.

<sup>540</sup> Macintosh Turfa & Steinmayer 1996.

<sup>541</sup> C. Wikander 1988, 51.

<sup>542</sup> On woodwork of roofs with tiled roofs see in general see Hodge 1960 (on Greek roofs); C. Wikander 1988, 49-55; Ö. Wikander 1993, esp. 121-125; Macintosh Turfa & Steinmayer 1996.

Several models depict gables in which the woodwork construction can be detected. On the Chiusine model from the late 6th century B.C., now at the Pergamon Museum (cat. no. 26) (*Fig. A25*), a painted decoration indicates the timber work: on the gables is a red band along the edges and a vertical line in the centre, thus imitating a king-post, the principal rafters, and the tie beam. On several models and tombs the end of the ridge beam and wall plates can be seen. On the votive model from Velletri a central antepagmentum covering the end of the ridge beam, two corner antepagmenta, covering the end of the wall plates and another two in between, covering the ends of the purlins can be seen (cat. no. 80) (*Fig. A74*). A similar construction can be seen in one of the facades of a tomb in Blera (*Fig. 39*).

On the model from San Gimignano (cat. no. 56) (*Fig. A53*) painted lines on the roof probably indicate rafters. Rafters and purlins are also painted on the roofs on several tombs, e.g. Grotte del Mereo T. 1 (*Fig. 79*) and Castro (*Fig. 87*). Several of these suggest that thinner rafters were used in between larger rafters (*Fig. 87*).

From this evidence - as well as from the treatment of timber in Roman buildings<sup>543</sup> - the wooden construction would have consisted of a triangular gable constructed of two principal rafters, joined at the apex, and a tie beam, thus a truss construction (*Fig. 122*). Macintosh Turfa & Steinmayer 1996 has emphasized the tie beam as the main difference between Etruscan and Greek architecture - since the Greeks used stone walls the problems of side loads were unimportant unless very large structures were built. Considering the large span in some of the buildings (such as the one on the Capitoline Hill mentioned above or the Upper Building at Murlo with large room) a truss construction would be necessary to carry such a heavy roof.

To stabilize the construction a king-post would be necessary. This connects the apex and the tie beam, as indicated by the Chiusine model (cat. no. 26) (*Fig. A25*) and the supports in the wall paintings from Tarquinia (*Figs. 81-82*). Further vertical supports may have been inserted, as can be seen from e.g. the tomb at Tuscania, Peschiara (*Figs. 29-30*). We do not have evidence for a system with queen-posts and a collar beam, but in the case of two or four columns supporting a gable, a system with queens-posts and collar beams would be more stable, since the weight would rest directly on the columns. It is also possible that oblique supports were used in the truss as is done today. Evidence (though uncertain) was already seen in the early incised building on the stele from Bologna (cat. no. 66) (*Fig. A 61*), dated to the mid-8th century B.C. (discussed above). Another example may be a (possibly 4th century B.C. or later) gable from a roof-shaped lid of an urn (*Fig. 131*).<sup>544</sup> More trusses must have been inserted at intervals along the roof to stabilize the construction, possibly at a distance of 3-4 m. Below the truss were the wall plates, lying on the walls or supported by posts or

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<sup>543</sup> Roman wooden construction, however, is not very well known, even with the evidence from Pompeii and Herculaneum (see Adam 1994, 207-208).

<sup>544</sup> Hodge 1960, 59, pl. VIIIc.

columns. On top of the truss was a long central beam, forming the ridge. In some cases the ridge beam could have been inserted into the truss construction as can be seen on a model from Chiusi (the ridge beam is trapezoidal and fixed in between the principal rafters) (cat. no. 38) (*Fig. A37*). Purlins rested on the principal rafters and the end of the purlins protruded at the gable, as can e.g. be seen from the Velletri model (cat. no. 80) (*Fig. A74*) as well as the Blera tomb (*Fig. 39*).<sup>545</sup> Rafters rested on the purlins and were attached to the central beam at the top and the wall plates below. Since several of the early Etruscan tiles are very large (see above) it is natural to assume that the rafters and purlins were constructed in such a way that each tile would be supported on either side by a purlin/rafter, thus the width of the tiles must correspond to the distance between the rafters, the length of the tile to the distance between the purlins. This is supported by the excavations of the building at Podere Tartuchino (phase II), where the charcoal imprints of rafters in the floor suggest a distance of c. 50 cm between the rafters, which would correspond to the width of the tiles. At the Upper Building at Murlo, for instance, the unit seems to have been 54 cm, which is the width of the tiles, the friezes and the lateral simas, thus it is reasonable to conclude that rafters were placed at intervals of 54 cm.

Returning to the evidence from the models what is seen e.g. on the Velletri model must be the three elements protruding in the overhang of the gable: the end of the central beam, the ends of the two wall plates, and the ends of the projecting purlins. This must indicate that the truss construction was "hidden" in the gable, i.e. plastered or perhaps covered by wooden boards.

Macintosh Turfa & Steinmayer has used Building A at Portonaccio (*Fig. B225*) as an example of how the woodwork construction of monumental buildings was.<sup>546</sup> They assume that five tension members/tie beams of trusses would have been used, spaced 3.5 m. The roof span (including overhang) is estimated to 19 m. With the weight of the truss and tiles the roof load per truss was c. 6,000 kg; the half load 3,000 kg and with a 17° pitch the tension load/side load about 850 kg. The depth of the tension member/tie beam is estimated to 66 cm (i.e. the height of the revetments),<sup>547</sup> while the thickness is estimated to 85 cm, based on the width of the column capital. Thus the tension members were probably roughly squared beams, measuring 0.66 x 0.85 x 19 m. This would be more than adequate to support the roof.

This sound reasonable, except for the estimated sizes of the beams. First of all, as argued below, it is problematical to use revetments to base estimations of size of beams, since the placement of the friezes is uncertain (see the discussion on friezes below). Secondly, there is nothing to suggest that the size of the beam corresponded to the size of the revetment, i.e. a revetment could easily be larger than the beam (and probably was judging e.g. from the hanging curtains). Thirdly, these beams would be much too large and such vast dimensions quite unnecessary - and add too much weight to the roof.

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<sup>545</sup> For unknown reasons Hodge (1960, 59) believes that the Etruscans did not use purlins.

<sup>546</sup> Macintosh Turfa & Steinmayer 1996, 13-16.

<sup>547</sup> For further suggestions of the size of the wooden beams, based primarily on architectural terracottas see *Fig. 132*.

In a few cases the central beam was supported by a central post (for this see above the discussion on posts), but whether this indicates that the truss was not used here is uncertain. At least a tension beam of some sort must have been used.

Some scholars reject the use of the truss. C. Wikander has argued that because of the modest span of Etruscan (domestic) buildings (see above) a truss system would not be necessary.<sup>548</sup> She further argues that *mutuli* plaques/antepagmenta speak against a truss system, but why antepagmenta cannot be used together with a truss I do not see, since both the central beam and the purlins rest on the truss and thus may well project (as may the wall plate below the truss). In the case of large antepagmenta a recessed roof may have been used (such as Pyrgi Building A) (for this see below). Instead she suggests a curious roof construction (*Fig. 133*).<sup>549</sup> One model (a) suggests a central beam and two wall plates, only connected by rafters and further supported by a partition wall perpendicular to the ridge. These members seem to rest on the walls. Even if they rested on posts within the wall this construction would not be enough to keep the weight of the roof from pushing the walls apart. In the second suggestion (b) the problem is solved by a latitudinal tension beam connecting the two wall plates (basically the same system as used in Danish farmhouses (see above)), but now the central beam is omitted and the rafters joined at the apex. This construction would be too light to carry a heavy roof, which would collapse without a support of a ridge beam. But if a ridge beam was added to the second reconstruction this would probably be enough to carry the roof of smaller buildings.

The prop-and-lintel system, which was used in Greece (where we have no evidence of the truss), could also have been used, though we have no evidence for it. A prop-and-lintel system rested within the wall (*Fig. 134*), which worked well in Greece with its stone walls, but would have worked less well with "clay" walls. The advantage of the prop-and-lintel was the possibility to make lower ceilings and thus room for an attic above (in Greek temples we have ample evidence for such attics because of preserved staircases, but no similar evidence is known from Central Italy - the stairs, however, would probably have been of wood and thus not preserved). A possible prop-and-lintel system, however, may be seen in the tombs from Tuscania, Pian di Mola (*Fig. 37*).

The woodwork of a tiled roof with a recessed gable was more complicated. Such a system is suggested for Pyrgi Building A and B and we have several models showing this system (cat. no. 28, 32, 34, and 35) (*Figs. A27, A31, A33, and A34*) as well as later models (*Figs. 113-114*). One must assume that this extra fall would have rested on a continuous wooden board or a system of "rafters and purlins", though it is difficult to imagine how the latter would have been constructed. In the reconstruction of Pyrgi Building B (*Fig. B125*) the eaves of the recessed gable seem to rest on a series

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<sup>548</sup> C. Wikander 1988, 52. She further rejects that the prop-and-lintel system was used.

<sup>549</sup> C. Wikander 1988, 50-51, fig. 11.

of longitudinal beams, resting on the tie beams. But what the upper part of this recessed roof rested on is uncertain. In this reconstruction there is not enough room for such a large and steep recessed roof as proposed, and especially the queens-posts would be in the way. On the other hand if the recessed roof was fairly flat and the length about 1-1.5 m (i.e. two or three rows of tiles) the construction would be much simpler and there would be enough room for such a recessed roof in the overhang (in fact the models with recessed roofs also point to a fairly short recessed roof).

In general there are several peculiarities in the Pyrgi reconstruction, though technically possible.<sup>550</sup> Instead of a king-post the gable is supported by a kind of queens-posts and collar beam system, consisting of two parallel longitudinal beams, one above the other with struts in between (a "ladder"). This construction is placed in either side of the gable, c. halfway between the corner and the centre of the gable, and connected by a horizontal beam. The reason for this must be to place the weight on the columns instead of in the centre. Instead of placing the central ridge beam on top of the truss, it is placed within the truss and apparently only supported by the rafters above it. In this system only one set of rafters are used (e.g. no principal rafters) which are repeated at short intervals. It should also be remembered that Pyrgi Building B is the perhaps most atypical Etruscan building since it is peripteral and its roof construction thus not representative for Etruscan roofs.

On most reconstruction drawings the wooden elements of the roof are nice square timbers (*Fig. B 125 and Fig. 135*). As also pointed out by Macintosh Turfa and Steinmayer this was hardly the case, since it would require too much works and serve no practical purpose (*Fig. 136*). The akroterion from Satricum, *oikos* H discussed above, also points to rounded purlins. According to Theophrastus (5.5.6) three types of timbers were used: unworked timbers (i.e. left in the round), cleft (i.e. split into planks or beams, or hewn (i.e. squared, using axes or adzes). According to Sen. *Ep.* 90.9 and Verg. *G.* 1.144 round timbers were the most common type of timber at least until the time of Augustus.<sup>551</sup> On the other hand several of the models point to squared beams, at least for the central beam, the purlins, and the wall plates (unless antepagmenta are seen). Perhaps the beams were roughly squared, especially in monumental buildings, while buildings of less importance used rounded or cleft beams.

We have no certain evidence how these rafters, beams, and purlins were fastened to each other. For the Roman period, however, we have abundant evidence for this (*Fig. 137*): most beams seem to have been morticed together, and similar systems must have been used in the Archaic period. Nails and wooden dowels may also have been used. In several cases beams must have been tied together.

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<sup>550</sup> I would like to thank assistant professor Torben Jacobsen of the Danish Technical University, Institute of Building Construction, for discussing the technical problems of roof construction with me.

<sup>551</sup> These sources are also discussed by R. Meiggs, *Trees and timber in the ancient Mediterranean world*, Oxford 1982, 347-348 and Macintosh Turfa & Steinmayer 1996, 20.

Several scholars propose a roof construction with laths and battens and sometimes also a clay bedding, such as the reconstruction of Pyrgi Building B discussed above (*Figs. B125 and B130*). If such a construction was used, the distance between the rafters and the purlins could of course be greater.<sup>552</sup> The idea that laths and battens were used on ancient roofs seems to stem from two Greek inscriptions (one from the Arsenal and one from the Gallery of the walls,<sup>553</sup> and the most common illustration used is the one published in Hodge 1960 (*Fig. 135*). Considering that the motor saw was not invented, the effort and cost of making such a construction would have been considerable. Furthermore it was quite unnecessary and served no practical purpose (except perhaps saving a few rafters and purlins) - and it could not even be seen when the building was finished. A clay bedding also seems unnecessary.<sup>554</sup> Thus a simple construction with just rafters and purlins is much more likely such as can also be seen on many buildings in Italy today (*Fig. 138*), a solution also favoured by Ö. Wikander.<sup>555</sup> This is also indicated by the use of skylight tiles.<sup>556</sup> On *Fig. 139* can be seen a reconstruction of the simple Etruscan roof using only purlins and rafters and non-sawn wood.

#### WOODEN ROOFS

Wood could also be used for roofs. According to Columella, *Rust.* 8.3.6 wooden shingles (*scandulae*) superseded thatch. Pliny *HN* 16.15.36 suggests that they should be made of hard oak. Shingles are not mentioned by Vitruvius. We have no evidence for this roof construction in Italy, but this of course does not prove that they were not used. If shingles were used for roofs, they would probably have been two-faced. Such shingles have recently been found in Beauport in England.<sup>557</sup>

#### BRONZE ROOFS

We have no archaeological evidence of bronze roofs from the Archaic period, but they were known in later Roman times as can be seen both from archaeological remains and from literary sources such as Ovid, *Fasti* 6.262: *quae nunc aere vides, stipula cum tecta videres, et paries lento vimine textus erat* ("The building which now you see roofed with bronze you might then have seen roofed with thatch, and the walls were woven of tough osiers"). Early buildings with bronze roofs are also mentioned from Greece such as the early Apollo temple at Delphi (Paus. 5.11, who also mentions a building on the Roman Forum with a roof of bronze). If bronze roofs existed in the Archaic period it is quite natural - considering the cost of bronze - that we find no trace of such roofs.

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<sup>552</sup> For a discussion of this see also Ö. Wikander 1988, 206 n. 31; Ö. Wikander 1993, 122.

<sup>553</sup> Hodge 1960, 65.

<sup>554</sup> Greek Laconian tiles and early Corinthian tiles probably used a clay bedding because of the curve, and according to Hodge 1960, 65 mud was still found on the underside of the tiles from Chios. To my knowledge no evidence of such a clay bedding has been found in Central Italy.

<sup>555</sup> Ö. Wikander 1993, 122.

<sup>556</sup> Hodge suggests that a kind of light-well could have been constructed beneath the skylight tile, but this is hardly likely (Hodge 1960, 73).

<sup>557</sup> G. Brodrib, *Roman brick and tile*, Gloucester 1987, 6-7.

## CEILINGS

### HUTS AND HOUSES WITH THATCHED ROOFS

Regarding the Early Iron Age we have no evidence that ceilings were used. In the Orientalizing period the early tombs seem to depict the inner part of roofs and no specific ceilings can be seen (type B<sub>1</sub>-B<sub>2</sub>), except possibly in a few cases, mostly vestibules, where flat ceilings, often coffered, are seen (e.g. *Fig. 140*). This type of ceiling is constructed with rows of beams and another row of slimmer beams perpendicular to the heavy ones. In between the panels may be diagonal ridges cut out of the tufa.<sup>558</sup> In some coffered ceilings the panels have a series of diagonal ridges, placed in a pattern so that four panels would make diamond-shaped forms, e.g. in T. dei Animali dipinti (*Fig. 140*), San Giuliano, T. Cima (*Fig. 60*), Valle Capellana T. 1 (*Fig. 94*). In the left side room of the T. Campana 1 in Cerveteri (type B<sub>2</sub>) the ceiling is not coffered, but between the rafters is a series of diagonal ridges.<sup>559</sup> It seems likely that these diagonal crossings should be interpreted as thatch, that is an extra layer of insulation.<sup>560</sup> Naso prefers to see this decoration as representing diamonds, since a painted diamond decoration is seen in other tombs, such as T. dei Denti di Lupo and T. Mengarelli (*Fig. 85*), and which is common on cloth.<sup>561</sup> As mentioned above it is possible that vestibules represent porches. If this is the case, a roof is seen, not a ceiling. Since a roof over a porch would not have been as important as the roof of the building, it is possible that a flat thatched roof or a roof with a low inclination was used. The only reason for making a flat or nearly flat roof over a porch would be that the roof could be placed in alignment with the top of the wall and thus avoid a low height underneath the porch.

### BUILDINGS WITH TILED ROOFS

Our knowledge of the nature of ceilings has to be based solely on the house tombs.<sup>562</sup> The problem is how to distinguish roofs from ceilings as they are seen from below.

In a few cases plaster fragments found on excavations have been assigned to ceilings. The only purpose for this would be insulation, perhaps also a ground for a painted ceiling. Such ceilings are suggested for Murlo, the South-East Building. In this case it seems quite unnecessary in an open building. On the other hand no foundations for walls were found, but perhaps the plaster was used for

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<sup>558</sup> For the origin and development of the coffered ceiling see W. Hoepfner, 'Zur Problem griechischer Holz-und Kasettendecke', in A. Hoffmann, E.L. Schwandner & W. Hoepfner (eds.), *Bautechnik der Antike. Internationales Kolloquium*, Mainz am Rhein 1991, 90-98; S. Steingraber, 'Die Tomba dei Festoni in Tarquinia und die Deckenmalereien der jüngeren etruskischen Kammergräber', *Jdl* 103, 1988, esp. 226-245; S. Steingraber, 'L'architettura funeraria a Chiusi, *La civiltà di Chiusi e del suo territorio*, Atti del XVII. Convegno di Studi Etrurschi e Italici, Florence 1993, 177-178.

<sup>559</sup> Steingraber 1982, fig. 275.

<sup>560</sup> Colonna 1986, 419; E. Nielsen at the conference "From huts to houses - transformation of ancient societies", Rome, September 1997.

<sup>561</sup> Naso 1996, 346. For Tomba Mengarelli see Naso 1996, tav. II.4

<sup>562</sup> Prayon 1975; Brocato 1996, 65. A ceiling is also cut out of the tufa on the building at Ischia di Castro, but this does not differ from that of the tombs.



partition walls without foundations. In Pyrgi three types of plaster were found, one of which was suggested as having been part of ceilings.

Sheffer has suggested that some of the buildings in Acquarossa had ceilings, e.g. in zone L, Building C. The postholes found here are interpreted as supporting a ceiling.<sup>563</sup> This seems unlikely - if ceilings were used they could either be nailed to the tie beam of the trusses or rest on consols in the wall (*Fig. 141*). The latter method would have the advantage of having an attic (because of the low inclination of the roof there would not be room enough for an attic if the ceiling was nailed to the tie beams).

Ceilings could have been constructed either with battens placed directly on the trusses (placed at intervals along the building. Considering the low pitch of the roof this would make the attic very low and thus not usable. Instead consols or beams across the roof could be fastened in the walls (*Fig. 141*).

Only in the later tombs, from type C, the flat or slightly slanting ceilings begin to be used and this type of ceiling continues in the later tomb-types.<sup>564</sup> The flat ceilings must imitate real ceilings made of wood. They either are plain or imitate broad (wooden) battens. It is possible that the slightly slanting ceilings may represent either the actual roof or a combination of a plaster coating and rafters on the inside of the roof. Some of the flat ceilings are coffered as in the earlier tombs (see above). The diagonal ridges in the coffered ceiling discussed above can also be seen in T. dei Capitelli (*Figs. 64-65*) and T. Maroi I, and on the wall of the T. V di Riserva del Bagno at Veii is a graffito with a similar motive (dated to the late 7th century B.C.).<sup>565</sup>

A unique type of ceiling is documented from a tomb in S. Giovenale, Pontesili T. 1.<sup>566</sup> While the tomb itself is of an ordinary type with three rectangular chambers, the ceiling of the first chamber is slightly slanting with a kind of double column, perpendicular to each other and thus making a cross.

While the column of the ceiling normally runs the length of the building, a few examples of columns in a transverse position are known from Cerveteri.

## ROOF DECORATION

### HUTS AND HOUSES WITH THATCHED ROOFS

Several of the logs or cross pieces on the roof may be decorated. The evidence regarding roof decoration has to be based almost entirely on the hut urns and later models. While "modern" huts do not use any kind of roof decoration, 40% of the hut urns have a plastic decoration, cut out of the end of the wooden cross pieces. There are three main types: "horns" (34%), animal protomes (probably birds) (5%), and human beings (1%). In general the architectural decoration must reflect a decoration of the roofs of real huts, a decoration cut out of the wooden logs or cross pieces.

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<sup>563</sup> *Viterbo* 1986, 110.

<sup>564</sup> See also Brocato 1996, 65.

<sup>565</sup> Naso 1996, fig. 257.

<sup>566</sup> E. Berggren & M. Moretti, 'San Giovenale (Blera)', *NSc* 1960, 61, fig. 57.

On the model from Sala Consilina (cat. no. 73) (*Fig. A67*) is a volute ornament (probably intended to represent a decoration cut out of the cross pieces) on the ridge and behind each of these a plastic bird.

From the Orientalizing period we have abundant evidence as to the decoration carved out on the cross pieces of the roof, such as can be seen on the buildings on the Verucchio throne with birds and human figures (cat. no. 86) (*Fig. A80*), and "horns" and volutes are seen on several of the 7th century building models (cat. nos. 2, 8, 9, 10, 11, 12) (*Figs. A1 and A6-A10*). One of the urns (cat. no. 11) (*Fig. A9*) also have animals along the eaves of the roof.

Thus, the decoration on the late 8th and 7th century models clearly show a roof decoration/construction similar to the one of the Early Iron Age hut urns.

It is a possibility that thatched roofs (and walls) may have been painted. This may be inferred from the hut urns with a painted or incised decoration on the roof, the model from Sala Consilina (cat. no. 73) (*Fig. A67*), and several of the funerary urns from Cerveteri from the second half of the 7th century B.C. (cat. nos. 5-13) (*Figs. A3-A11*). It can of course be argued that the decoration on the hut urns was purely a decorative/symbolic feature of the urn, not necessarily of the hut itself. If the roofs were painted, this could only be done if a layer of clay was added on top of the thatch.<sup>567</sup> Even after heavy rain the sun would quickly dry the clay, and it would allow the rainwater to run off the roof more quickly. Unless soaked in water, sunbaked clay would last a long time, and it could easily be patched up when necessary. This could perhaps account for the lower inclination that seems to have been used on ancient thatched roof and for the sharp bend near the eaves on many of the hut urns. That clay was added on the thatch is also implied by Vitruvius 2.1.3, who states that *Posteaquam per hibernas tempestates tecta non potuerunt imbres sustinere, fastigia facientes, luto inducto proclinatis tectis, stilicidia deducebant* ("When in winter-time the roofs could not withstand the rains, they made ridges, and smearing clay down the sloping roofs, they drew off the rain water"). This clay on the roof could have been coated and painted, perhaps whitewashed which would make the roof more water resistant. The problem is that the clay would add extra weight to the roof. But all in all I think that the possibility is well worth examining, especially with experimental archaeology.

#### BUILDINGS WITH TILED ROOFS - ARCHITECTURAL TERRACOTTAS<sup>568</sup>

Our evidence regarding architectural terracottas is naturally based on the preserved architectural terracottas themselves (*Figs. 114-117*), but models may also give important evidence.

#### Akroteria

<sup>567</sup> This idea is also suggested by Bartoloni *et. al.* 1987, 138. Colonna (1986, 392), on the other hand, rejects the idea that the roof was covered by clay.

<sup>568</sup> I have previously discussed architectural terracottas and their development in my thesis *Etruscan architectural terracottas from the late Orientalizing and Archaic periods: Their relation to building identification, their development, origin, function, and symbolic significance*, Copenhagen 1989 (unpublished).

Akroteria can be placed either at the apex, in the two lower corners of the gable, or along the ridge of the roof.<sup>569</sup> They are known from a number of sites, dated from around 640/630 B.C. Akroteria can be either fairly small figures or large life-size statues such as the ones from Murlo, the Upper Building, Veii, Protonaccio or Satricum, temple II, used from the early 6th century B.C. Regarding smaller fragments it is often impossible to determine whether they originate from akroteria or antefixes.

Akroteria are far more common in Etruria than in Latium (*Diagrams 16-17*). There is a great variety of motives on akroteria, ranging from simple ornamental ones (volutes, discs, palmettes, or floral), and animals, especially common in the early period, to more complicated mythological themes and statues of deities in the later period. Akroteria are also common on models (*Diagrams 1-6*). Here are mostly seen small akroteria on the ridge are seen on models, primarily birds, volutes, and floral designs. The only large akroteria used on models are the felines, placed either on the ridge or on the oblique sides of the gable. Strangely enough, birds are very rarely used as real akroteria.

### **Pediment sculptures/tympanon**

These could be either plaques with a relief decoration covering the entire triangular gable (such as S. Omobono in Rome, phase 1) or pediment sculptures in the round such as the warriors from Cerveteri.<sup>570</sup> Unfortunately the latter cannot be associated with any building, except that the small size indicates a small building. A few separate figures may have come from pediments (such as the head of Hercules from the Esquiline in Rome),<sup>571</sup> though unless a substantial number are found this is difficult to determine. Even for later buildings pediment sculptures are rare. They are not seen on any of the models.

### **Antepagmenta<sup>572</sup>**

Several types of antepagmenta are known (*Diagrams 18-19*). They are either painted or has a moulded decoration. Often, however, they are difficult to recognize if they are fragmentary. Simple akroteria, such as disc antepagmenta, especially if the paint was lost, may simply have been identified with tiles and thrown away. A few early examples of antepagmenta (animals and gorgons) are known from around 640-630 B.C. (Acquarossa) and the early 6th century B.C. (Murlo). Otherwise, they all date to the Late Archaic period. Like for akroteria complicated mythological themes are seen in the late period, such as the Seven against Thebes in Pyrgi, Building A.

Like for akroteria antepagmenta are much more common in Etruria than in Latium (in Latium only used in the Late Archaic period).

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<sup>569</sup> For a recent discussion of akroteria see P. Danner, 'Die dekoration auf First und Giebelschrägen in der archaischen Baukunst Mittelitaliens', in *DELICIA FICTILES* 1993, 93-107.

<sup>570</sup> See the appendix, Vigna Marini Vitalini.

<sup>571</sup> See the appendix. Another example, dated to the Late Archaic/Early Classical period, can be mentioned from Orvieto (no exact findspot known) (Stopponi 1993, 160-161).

<sup>572</sup> André 1940, ccix-ccxi.

On models (*Diagrams 1-6*) it is often difficult to determine whether the ends of the purlins are seen or simple antepagmenta (e.g. cat. no. 28) (*Fig. A27*). That at least some of them may be interpreted as antepagmenta can be inferred from a funerary model from Arezzo (though later) (*Fig. 20*). These all date to the Late Archaic period. A few disc antepagmenta are also seen, not documented in real architectural terracottas.

### Protomes

Protomes, i.e. plastic animals placed on top of the cover tiles, are only known from Acquarossa, consisting of griffin and possibly also lion protomes, dated to the last quarter of the 7th century B.C.

An entirely different type of architectural terracottas are also often referred to as protomes.<sup>573</sup> They consist of moulded heads that are flat on the back and have a small projection at the back, thus they must have been attached to a beam or possibly a purlin and thus have a function similar to an antepagmentum. Only few protomes are known from Central Italy. Felines are known from Murlo (either the Upper or the Lower Building), thus dated to the early 6th century B.C. or c. 630 B.C. Gorgoneions are known from Cerveteri, Vigna Marini Vitalini, dated to 510 B.C. and from Vigna Parrocchiale. Acheloos is known from Cerveteri, Vigna Marini Vitalini, dated to the Late Archaic period (could also be from some kind of antepagmentum).

Protomes are not seen on any of the models.

### Antefixes<sup>574</sup>

Many types of antefixes were employed (*Diagrams 21-22*). The earliest were simple semicircular plaques with a painted decoration, such as the ones from Acquarossa, dated to 625-600 B.C., only covering the end of the cover tile except for a slight overhang over the edge of the roof, but during the Archaic period they gradually become higher and the overhang disappeared. In the 6th century B.C. antefixes became more common, now with a moulded decoration such as female heads. The number greatly increased around 520 B.C. In this period the antefixes became larger and more elaborate and some were supported by struts at the back. The *nimbus* is especially characteristic of the period.<sup>575</sup> The reason for the large number of antefixes from this period is that lateral simas were practically no longer being used and because of the more numerous and larger monumental buildings. In general the development can be characterized as a development from mask-like, stylized appearances to more lifelike appearances. Many different types are known, the most common the female heads. In the Late

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<sup>573</sup> In general see Andr n 1940, ccix ("appliqu s"). Note that the term protome is not used synonymously by all scholars.

<sup>574</sup> Antefixes in general have been treated by Andr n 1940, cxxxvii, clxii-clxxv. For the literary sources on antefixes see L. Anselmino, *Terrecotte architettoniche 1 - Antefisse*, Rome 1977, 7-8.

<sup>575</sup> It was taken over from Campania (where numerous examples are known) and is probably a development of the tongue-frame seen on antefixes from Campania (probably originated in Capua) from the mid-6th century B.C. (Winter 1978, 35; Winter 1981, 112-116).

Archaic period deities (Juno Sospita)<sup>576</sup> and mythological creatures become common (satyrs, harpies, Acheloos, etc.). In this period are seen complete figures, often in combination (e.g. satyrs and maenads) as opposed to only heads in the previous periods.

Only a few examples of antefixes are seen on models: human heads, satyrs, and gorgoneions (*Diagrams 1-6*). All the types used on models are also found on real architectural terracottas, but of all the different types of human and mythological creatures common on real antefixes, only gorgoneions and one example of satyrs are known.

### **Lateral simas**<sup>577</sup>

Lateral simas with waterspouts are fairly rare in Central Italy. Altogether lateral simas with spouts are securely known from seven different sites (Poggio Civitate, Poggio Buco, Velletri, Rome (S. Omobono and Regia), Acquarossa and Veii and possibly also Punta della Vipera), some of them made from the same or the same type of mould (Velletri, S. Omobono, Regia, and Punta della Vipera). The spouts are mostly in the shape of a feline, except for the Acquarossa spouts with the ram's heads above, and the circular spout from Forum Boarium.<sup>578</sup> In general it can be seen that the lateral sima with the plain *fascia* and a waterspout in the shape of an animal in the centre was a standard form already around 630 B.C. To cover the joins between the two lateral simas, overlapping heads attached to one end of the lateral sima were used or antefixes in the shape of human heads on semicircular cover tiles. In the early 6th century B.C. the cavetto with strigils was introduced. The lateral simas lost their popularity during the 6th century B.C. and the latest examples are the ones in Rome and Velletri, dated to 540-530 B.C.

Lateral simas are not known from any of the models.<sup>579</sup>

### **Raking simas**<sup>580</sup>

Raking simas are much more popular than lateral simas and are known throughout the Archaic period. From the 7th century B.C. they are only known from Murlo. They consisted of the flat *fascia* attached to a pan tile. In the early 6th century B.C. a cavetto with strigils is added and the *fascia* got a figured decoration (either painted or moulded).<sup>581</sup> In the second half of the 6th century the number increased.<sup>582</sup> Around 520-510 B.C. the raking sima became very large (up to approximately 50 cm in

<sup>576</sup> For a discussion of Juno Sospita see chapter 5.

<sup>577</sup> For a recent discussion of simas see C. Wikander, 'The decorative systems of the Archaic sima', in *DELICIAE FICTILES* 1993, 87-91; Ö. Wikander 1994.

<sup>578</sup> Damgaard Andersen 1990.

<sup>579</sup> On the model from Veii, Portonaccio, cat. no. 79 (*Fig. A73*) it is difficult to determine whether friezes or lateral simas are depicted. Since there are no spouts friezes are most likely.

<sup>580</sup> Ö. Wikander 1994.

<sup>581</sup> Acquarossa (Type I and II), Veii (Piazza d'Armi), Poggio Buco, Gravisca, and Rome (Regia) or a relief decoration (Murlo, Poggio Buco, Tuscania, and Cerveteri).

<sup>582</sup> With relief decoration: Rome, Veii, Velletri, Cerveteri. With painted decoration: Acquarossa Type IIB and III and Punta della Vipera.

height) and elaborate. They often had struts, like the late antefixes, to support them. *Torus* simas became popular in this period, probably inspired from Sicily.<sup>583</sup>

Numerous models have a thickening of the eaves which may represent raking simas. It cannot, however, be excluded that barge boards are intended.<sup>584</sup> A few models have raking simas with an ornamental decoration,<sup>585</sup> but none have a relief decoration with figures as are seen on "real" raking simas.

### Friezes<sup>586</sup>

Friezes are numerous. They could be placed diagonally below the raking simas on the gables (i.e. on a kind of barge board) or horizontally. Since many friezes have nailholes (placed randomly) they must have been fastened to a kind of board. It is often assumed that the horizontal friezes were placed on a board fastened to the end of the rafters, below the eaves and thus below the antefixes (or lateral simas).<sup>587</sup> It is also possible (though less likely) that they could have been fastened to a (visible) tie-beam in the gable (sometimes referred to as the architrave),<sup>588</sup> to the wall plate, or to the wall. Raking friezes could have been placed either on a board covering to the end of the purlins or below the roof of the gable, i.e. fastened to the (visible) principal rafters. Friezes had either a relief or a painted decoration.

The earliest friezes (640-630 B.C.) had a painted decoration and no cavettos (Acquarossa). In the first half of the 6th century B.C. friezes with a moulded figured decoration became numerous and a

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<sup>583</sup> Two types of decoration are used: 1. figures in high relief extending into the cavetto: Volterra and 2: ornamental decoration: Cerveteri, Veii, Civita Castellana, and Lanuvium. The raking simas from Palestrina are unusual with 1. a procession in relief and 2. a painted hippocampus decorating them.

In general, there are three theories about the purpose of these pierced *torus* simas: the holes were used 1. to carry the simas, 2. for ventilation during firing/drying 3. to inset some kind of metal rod to fasten the simas to each other (Stefani 1944-1945, 95; Andrén 1940, cxxxiv). I think the first theory is very unlikely since most of these holes in the *torus* do not go all the way through and are uneven, and it would have been much more convenient to carry them on a wooden plaque. Thus theory 2 or 3 (or possibly a combination of these two) is probably the most valid. The large raking simas from the Late Archaic period would especially need to be fastened to each other.

<sup>584</sup> Possible plain raking simas or barge boards: cat. no. 21 (Fig. A20), cat. no. 28 (Fig. A27), cat. no. 32 (Fig. A31), cat. no. 34 (Fig. A33), cat. no. 38 (Fig. A37), cat. no. 40 (Fig. A39), and cat. no. 42 (Fig. A41), cat. no. 67 (Fig. A62), cat. no. 68 (Fig. A63), and cat. no. 85 (Fig. A79).

<sup>585</sup> Three examples of raking simas with decoration are known: on cat. no. 51 (Fig. A49) the raking sima has a moulded cavetto with indentations representing the strigils of the cavetto, terminating on each side in a lateral volute. On cat. no. 82 (Fig. A76) is a large raking sima also supported by struts. This sima consists of arches with a *torus*, a plain *fascia* and at the top a cavetto with strigils. On cat. no. 81 (Fig. A75) is a large plain raking sima consisting of three *tori*, the uppermost ending in an inverted volute corner akroterion.

<sup>586</sup> For a general discussion on friezes see Å. Åkerstöm, 'Untersuchungen über die figürlichen Terracottenfriesen aus Etrurien und Latium', *OpRom* 1, 1954, 191-231 and Torelli 1992 (with further references) and for distribution of friezes in general see Knoop 1987, fig. 32.

<sup>587</sup> E.g. Olofsson 1984, 72 (regarding Acquarossa zone F, Building A and C).

<sup>588</sup> C. Wikander (1988, 51) argues - rightly I think - that this is less likely because the overhang of the roof would make the friezes difficult to be seen, the protective value was unnecessary since the overhang protected the wall plate, and the inverted L-shaped revetments type II from Acquarossa would be difficult to place here.

plain cavetto or a cavetto with strigils was added.<sup>589</sup> These continued until 520 B.C.<sup>590</sup> Between 520/10 - 480/70 B.C. ornamental motives on large revetments have replaced the figured friezes (see below).

Friezes are also seen on several of the 6th century models, though never with any kind of decoration.<sup>591</sup>

### **Revetments**

Different kinds of large revetments, open-work crestings etc. are not seen until the late 6th - early 5th centuries B.C. They are especially popular in the 4th century B.C. and later. They are common on the Late Archaic monumental buildings such as Veii, Portonaccio or Pyrgi, Building A and B. They are characterized by their large size and a purely ornamental decoration. They are often in combination with other types of revetments and of little practical value.

Note that the term revetment is often used if it cannot be determined whether a fragment belonged to e.g. a frieze or a raking sima.

### **Motives of revetements**

Revetments had either a painted or a moulded decoration, both used from the second half of the 7th century B.C. (*Diagrams 22-23*). From the earliest period but figured and ornamental decoration was used, though the figured decoration prevailed. It is often difficult to interpret these figured scenes and to determine their significance, especially in relation to whether the scene has any sacred connotations or not (see also chapter 5). The most common scenes are processions, some of which have winged horses. Other popular scenes are riders/warriors and banquets. In the Late Archaic period the ornamental decoration became common.

### **The origin and early development of architectural terracottas**

Antefixes and antepagmenta probably played an important role in the early development of architectural terracottas: with the introduction of cover tiles antefixes would be the most necessary terracottas to produce, in order to prevent the wind from lifting the roof. Even if a lump of clay or some other material may have been used (as is the case in Italy today), antefixes were used together with the earliest examples of roofs. Antepagmenta would have been just as necessary, at least the ones covering the semicircular opening of the ridgepole tiles. As mentioned above, antepagmenta are

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<sup>589</sup> Acquarossa, Gabii, Murlo, Poggio Buco, Rome (Regia, S. Omobono, the Capitol, and Comitium), and Veii (Piazza d'Armi). Except for the ones from Acquarossa the decoration is in relief.

<sup>590</sup> Acquarossa (zone F), Castel d'Asso, Lavinium, Tuscania, Ardea, Cerveteri, Pyrgi, Rome (the Regia and S. Omobono), Roselle, Tarquinia, Veii, Velletri, and Vetulonia. Except for the revetment from Acquarossa with a painted *fascia* and a triangular cavetto, the other types have curved cavettos with strigils and a *fascia* with a relief decoration.

<sup>591</sup> Cat. no. 21 (*Fig. A20*), cat. no. 28 (*Fig. A27*), cat. no. 32 (*Fig. A31*), cat. no. 38 (*Fig. A37*), cat. no. 40 (*Fig. A39*), cat. no. 42 (*Fig. A41*), cat. no. 51 (*Fig. A49*), cat. no. 68 (*Fig. A63*), cat. no. 79 (*Fig. A73*), cat. no. 81 (*Fig. A75*), cat. no. 82 (*Fig. A76*). Most of these are plan or with only a simple decoration (lines etc.).

difficult to identify, and many may have been lost. The earliest antepagmenta are the gorgoneions at Murlo, the Upper Building, dated to 600-590 B.C.

Revetments were important in order to protect the wooden parts of the roof, but they were not essential like antefixes and antepagmenta. Revetments are known from the earliest tiled roofs, e.g. at Acquarossa.

Architectural terracottas were clearly developed from the decoration on huts and houses with thatched roofs. These seem primarily to have consisted of decorative elements or figures cut out of the end of the logs near the eaves on huts or cut out of the cross pieces on the ridge (see above).

This can clearly be seen on some of the earliest architectural terracottas, especially from Acquarossa. The griffin head protomes on the cover tiles from Acquarossa, dated to the last quarter of the 7th century B.C., are clear parallels to the animals near the eaves on both hut urns and house models (e.g. cat. no. 11) (*Fig. A9*). These protomes are not seen otherwise in the Archaic period, probably because they had no practical function. The decorated antefix probably also had its origin in these animals, though its form, of course, was a new invention for the tiled roof.

The early terracotta akroteria also have close parallels to the decoration cut out of the cross pieces on hut urns and thatched houses. This can clearly be seen on e.g. the volute akroteria from Murlo and Acquarossa, which can be compared to a number of hut urns with volutes and Caeretan models (e.g. cat. no. 10) (*Fig. A8*). The seated and standing akroteria from the Upper Building at Murlo also have parallels to human figures cut out on the roofs, seen both on the hut urns<sup>592</sup> and on the huts or houses on the Verucchio throne (cat. no. 86) (*Fig. A80*).

The early raking simas and revetments must be inspired from wooden barge boards, such as they are seen on the Caeretan urns (cat. no. 9) (*Fig. A7*) and possibly also on the houses (or huts) on the Verucchio throne (cat. no. 86) (*Fig. A80*).

The antepagmenta, on the other hand, had no predecessor in wood, and must have been a new invention, clearly related to the tiled roof.

In general most of the motifs used on architectural terracottas in Central Italy are unknown in Greece. It is thus clear that the development of architectural terracottas in Etruria was an independent development, not a fixed decorative system taken over from the Greeks, such as many scholars have claimed. However, it is usually claimed that tiles and architectural terracottas were introduced to Italy from Greece, based on the famous story related by Pliny (*HN* 35.152)<sup>593</sup> that Demaratus, when he fled

<sup>592</sup> See Damgaard Andersen 1993b, 27-29, figs. 33-34.

<sup>593</sup> The Demaratos story have been discussed by a large number of scholars - most seem to regard it as a historical event. The most important are: A. Blakewell, "'Demaratus". A study in some aspects of the earliest Hellenization of Latium and Etruria', *JRS* 25, 1935, 129-149 (esp. 147-149); G. Ampolo, 'Demarato. Osservazione sulla mobilità sociale arcaica', *DialArch* 9-10, 1976-1977, 333-345; M. Mertens-Horn, 'Beobachtungen an dädalischen Tondächern', *Jdl* 93, 1978, 30-65; Williams 1978; Torelli 1979, 310-312; von Hase & Colonna 1984, 51-52 n. 106; D. Musti, 'Etruria e Lazio arcaico nella tradizione (Demarato, Tarquinio, Mezenzio)', *Etruria e Lazio arcaico, Atti del incontro di studio, QArchEtr* 15, 1987, 139-153; Ö. Wikander in



from Corinth around 650 B.C., took three craftsmen (named Eucheir, Eugrammos and Diopos) with him to Italy and these three introduced the art of modelling (*plastike*) to Italy. Several objections can be made to this story: *plastike* does not necessarily mean architectural terracottas and Corinth so far has not produced convincing evidence of architectural terracottas or other terracottas sculpture from before 650 B.C. (nor has any other site in Greece). Williams agrees that in 650 B.C. Corinth could hardly have exported terracottas to Italy and thinks that the development of architectural terracottas took place individually in Greece and Central Italy, but he explains the Demaratus story by saying that what Pliny could have meant was that tiles were exported. This theory seems very unlikely since the word *plastike* can hardly be taken to mean tiles. Pliny (*HN* 7.195) claims, however, that tiles were invented by Kinyras from Corinth, but these two statements by Pliny need not be connected. For the origin of tiles see above.

A recent find of an antefix in a tomb in Camerina with the inscription Diopos led scholars to believe that Pliny's story could now be proved.<sup>594</sup> Previously the names of the craftsmen were taken to be artificial names, but now at least Diopos seems to be a real name (or a nick-name). Since the tomb in which the antefix was found is dated to the mid-6th century B.C. this inscription does hardly prove Pliny's story. Thus it can be concluded that the Demaratus story cannot be used as an argument that Etruscan tiles and architectural terracottas were imported from Corinth (or Greece).

Several other ancient sources discuss the origin of terracottas: Athenagoras, *Legat. pro Christ.* 17.3 apparently based on the text of Pliny, tells the story of Butades' daughter and the relief (though without mentioning Butades' name). As opposed to that Tatian (*Oratio adversos Graecos*, 1) and Clemens of Alexandria (*Stromata* 1.16.75) claims that *plastike* was invented by the Etruscans. Since these sources all are late (2nd century AD) and written with a specific religious purpose, they cannot be used as evidence regarding the origin of terracottas. One could perhaps conclude that the two latter sources show that the idea of the Etruscans having invented *plastike* did not seem totally strange in the 2nd century AD.

## CONCLUSION - THE DEVELOPMENT OF BUILDING TECHNIQUES

From the Neolithic period till well into the 7th century B.C. huts with foundations cut out in the tufa dominated. The ground-plan was either circular, oval or rectangular. The foundations were cut out of either the tufa, or the hut could have a sunken floor. Stone foundations were only used rarely for huts.

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Viterbo 1986, 99; D. Ridgway, 'Demaratus and his predecessors', in G. Kopcke & I. Tokumaru (eds.), *Greece between the east and the west: 10th-8th centuries BC*, Papers of the meeting at the Institute of Fine Arts, New York University March 15-16th, 1990, Mainz am Rhein 1990, 85-92; N. Winter, 'The Greek background for Archaic architectural terracottas of Central Italy' in *DELICIA FICTILES* 1993, 17-20; Ridgway & Serra Ridgway 1994.

Only the above mentioned text by Pliny mentions the two other craftsmen. Other sources only mention Demaratus as the father of the later Roman king Tarquinius Priscus (Polyb. 6.2.11a; Dion. Hal. *Ant. Rom.* 3.46; Strabo 219, 378; Cic. *Tusc.* 5.109 and *Rep.* 2.34, Livy 1.34 and 4.3 and finally Pliny *HN* 35.16. Thus Pliny is the only source for the craftsmen following Demaratus.

<sup>594</sup> P. Pelagatti in *Magna Grecia* 12, 1, 1977, 4; *AR* 1976-1977, 71, fig. 44; Colonna 1980-1981, 157-158.

The walls were wattle and daub, supported by posts. Doors and windows were mostly rectangular; the doors on the front short side and the windows (in a few cases probably two) on the long side. The floors were beaten earth, sometimes with stones or flakes of tufa. In most cases the roof was carried by one or more posts. The roof was thatched, consisting of leaves and branches laid on a fairly thin wood/branch construction. The predominant shape was the hipped roof, though two-faced roofs and possibly also conical roofs were also used. It is a possibility that clay was added on top to make the roof more waterproof. The dominant shape for the thatched roof was the hipped roof. Judging from the tombs the hipped roofs were used until the mid-7th century B.C. Two-faced roofs were used sparsely in the Early Iron Age, but seem to become fairly common in the late 8th/early 7th century B.C. Such two-faced roofs were used primarily on rectangular buildings.

From the early 7th centuries B.C. huts were gradually replaced by houses, still with a thatched roof. At San Giovenale House I, phase 1, shows a sunken floor, but at the same time substantial stone foundations, thus a building type lying somewhere between a hut and a house. A curious building is Building AA in Satricum with foundations cut out of the tufa and postholes, but - according to the excavators - with a tiled roof. The ground-plan is uncertain. It is difficult to see, however, how this rather flimsy structure could have supported a tiled roof. One of the earliest houses is House IV in San Giovenale, probably dated to the late 8th/early 7th centuries B.C. Another building may be House F on the Borgo of San Giovenale. Building Beta in Tarquinia, Pian di Civita, must have been thatched in its earliest phases, since no remains of tiles were found before the second half of the 7th century B.C. Very few buildings from this period have been preserved, and at several sites (such as Satricum) huts continued to be used (for a further discussion of this see chapter 5). They early houses had a rectangular ground-plan with a stone foundation.<sup>595</sup> Most buildings were small with one or two rooms (or an anteroom). The walls either were wattle and daub, mudbrick, or *pisé*, all with a timber frame construction. The evidence both from buildings and from the tombs suggest that posts/columns did not support the roof - a few examples of pilastre/lesene are known, however. The roof must have rested primarily on the timber frame of the walls, joined by a tension beam or a truss may have been employed. Doors and windows were probably rectangular. The floor was beaten earth, sometimes with pebbles and/or stone flakes.

Around the mid-7th century the tiled roof was introduced, but it is clear that the change from huts to houses had already taken place before tiles began to be used. The tiled roof played a major role in the development of Etruscan architecture.<sup>596</sup> Besides being more durable these buildings were less exposed to fire, and it was thus possible to place buildings closer together and have larger concentrations of buildings but with much less risk of fire than in the hut villages. Livy (5.55.3) states that tiles were eventually supplied at the state's expense (in Rome after the Gallic war in 390 B.C.) since wooden and thatched roofs easily burned.

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<sup>595</sup> With the exceptions of some of the early houses at Roselle.

<sup>596</sup> And thus also urbanism in Central Italy, as I have argued in Damgaard Andersen 1997.

Because of the large weight of the tiles, more substantial buildings were needed. The foundations were fairly thick (between 0.45 to 3 m for the large monumental temples, depending on the size and nature of the building) and consisted of stones, either irregular or ashlar blocks, often tufa. Sometimes posts or columns and pillars were used to support the roof or a porch or portico. Columns were in either wood with parts (or the entire column) encased in terracotta,<sup>597</sup> in wood with stone capitals and/or bases in stone, or entirely in stone. Both Tuscan and Aeolic Ionic columns are known. The walls were either wattle and daub, *pisé*, mudbrick, or stone (or a combination of these) with a half-timbering construction. In the case of stone walls mortar was only rarely used. A specific technique is walls in *murs a piliers*, a technique taken over from the Near East. The earliest use of this can be seen in Tarquinia, Pian di Civita, Building Beta, dated to the early 7th century B.C. Wooden walls may also have been used, though we have no certain evidence for this. The doors and windows were either rectangular or Doric and could be placed on both the long and the short sides. In some case there were one door and internal doors leading to the other rooms, in other cases each room had its separate entrance door. The floor was mostly beaten earth, sometimes with pebbles and stone flakes or crushed pottery/tiles. A few examples of tiled floors and floors with tufa slabs are also preserved. The cavities/subterranean storerooms suggest some use of wooden floors.

The tiled roof employed a much lower inclination than the thatched roof (mostly 10°-20°) and was always two-faced, though shed roofs may also have been used. It sometimes had a recessed gable. The woodwork construction of the roof was fairly heavy with thick beams. The basic construction was based on the truss, often with a king-post and sometimes more vertical and horizontal supports inserted. Rafters were placed at an interval of c. 50 cm, corresponding to the width of the pan tile, while purlins were placed at intervals of c. 60 cm, corresponding to the length of the pan tile.

Ceilings gradually came into use during the late 7th/first half of the 6th century B.C. as can be seen from the tombs, though a number of buildings apparently did not use ceilings as can be seen from the skylight tiles.

Several roofs had a decoration of architectural terracottas, consisting primarily of akroteria, antepagmenta, antefixes, and revetments. Besides being decorative these all (except for the akroteria and the protomes on the cover tiles) had a practical function in protecting the woodwork of the roof and preventing the wind from lifting the roof.

The introduction of architectural terracottas is probably to be connected with the change of habitation and the beginning of urbanization in the second half of the 7th century B.C. When the habitation system gradually began to change from huts to houses and the thatched roof was replaced by a tiled roof,<sup>598</sup> the decoration was made in terracotta instead of wood. Volutes/"horns" of the same type as the ones from Acquarossa and Murlo, the Lower Building and the South-East Building, are common on thatched roofs (the hut urns and on the Sala Consilina model (cat. no. 73) (Fig. A67), the urn from Civita Castellana (cat. no. 2) (Fig. A1) and on house urns from Cerveteri (cat. no. 8-12)

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<sup>597</sup> Pillars are only known from tombs.

(Figs. A6-A10)). Both the Caeretan models and Murlo and Acquarossa date to the second half of the 7th century B.C. and were thus contemporary. A reminiscence is still to be seen in 540-530 B.C. with the volutes from Rome S. Omobono and Cerveteri and in the Late Archaic period with the volute base supporting the Eos and Kephalos/Tithonos akroterion from Cerveteri,<sup>599</sup> or in the volutes supporting the akroterion with a warrior and a female from Cannicella, Orvieto.

Animals are common on thatched roofs, both on hut urns (Figs. 10 and 15) and house urns (e.g. cat. no. 11) (Fig. A9), as well as architectural terracottas, but it is not quite clear what type of animal they represent: birds and horses have been suggested.<sup>600</sup> The griffin and lion terracotta protomes from Acquarossa clearly resemble the animals on the logs near the eaves.

The raking simas may have been inspired from the barge boards.

The building of houses with a tiled roof required much more technical skill than hut building, and it seems reasonable to imagine that house building soon went from private construction to more specialized crafts. Manufacturing of tiles, skill in both making tiles and firing them, the large amount of clay and firewood needed, the technical problems of the large weight of the tiled roofs, all suggest that such houses were not "homemade".<sup>601</sup>

Tiled roofs thus made it possible (and necessary) to built more durable buildings.

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<sup>598</sup> For this problem see Ö. Wikander 1988, 207.

<sup>599</sup> *Welt der Etrusker* 1988, 170, cat. no. B 6.1.18 (ill.).

<sup>600</sup> Since both birds and horses are rare as architectural terracottas, this either indicates that birds/horses went out of fashion in the second half of the 7th century B.C., and was replaced by other systems. Another possibility is that they were not meant to be specific animals but only to represent animals as such - whatever significance they had. It is also a possibility that they represented felines - if this is the case we have much better evidence for felines on early architectural terracottas.

<sup>601</sup> As suggested by several scholars, e.g. Melis & Rathje 1984, 293-394 n. 50.

## CHAPTER 5

# THE FUNCTION, DEVELOPMENT, AND RECONSTRUCTION OF ETRUSCAN BUILDINGS

### THE FUNCTION OF THE HUTS OF THE EARLY IRON AGE TO THE MIDDLE ORIENTALIZING PERIOD

Determining the function of huts is difficult, since they all seem to show the same characteristics, both in terms of architecture and finds. The different shapes of ground-plans have often been suggested as being of both chronological and functional significance. As shown in chapter 2, 3, and 4 the difference in shape does not seem to be due to a chronological development from circular to oval to rectangular huts. The choice of shape seems to be a combination of a preference for a specific shape in some areas (such as oval huts in San Giovenale), as well as a difference in function and status. It has been suggested that square huts were used for habitation and oval and rectangular ones for other uses such as stables and storerooms (e.g. Monterozzi - see chapter 2).<sup>602</sup> In Satricum (see chapter 2) both circular, oval, and rectangular huts were found. Since cooking items were found in the circular huts and storage items in the oval huts, and since the two types were placed close together, Maaskant-Kleibrink concludes that the small circular huts (2-3 m in diameter) should be interpreted as cooking sheds. Unfortunately, such clear evidence does not exist elsewhere. Many other small circular huts are known, e.g. Veii, Piazza d'Armi and underneath the Regia in Rome, but the preserved evidence/publications do not allow us to draw similar conclusions.

It is natural to assume that status was connected to the larger huts. They have often been interpreted as belonging to the *paterfamilias*.

Thus, all huts had a domestic function: habitation, cooking, stables, and storage. That male and female activities took place in the same hut is clear from the evidence from hut GR VII at Satricum.<sup>603</sup> In this hut, 11 m in length, and dated to the first half of the 7th century B.C., both a number of loomweights (“female activity”) as well as iron knives and drinking vessels (i.e. a banquet) (predominantly “male activity”) were found.

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<sup>602</sup>Linington 1981; Linington 1982; Batoloni, Beijer & De Santis 1985, 1982.

<sup>603</sup>Maaskant-Kleibrink 1991, 80.

A further function can be seen in Satricum where remains of a hut beneath the later temples were found. These foundations date to the 7th century B.C.<sup>604</sup> In connection to this hut - which did not otherwise differ from other huts from this period - indication of cult practice was found: a pit in front of the hut was probably used for libation, and outside traces of a votive deposit<sup>605</sup> - which dates back to the 8th century B.C. - were found. The position of the hut beneath the later temples further indicates that it had a sacred function. Because of the domestic finds the hut must also have been used for habitation, perhaps for a chieftain or priest. This is probably the earliest certain example of a building with at least a partial sacred function from Latium. A similar phenomenon can be seen in Rome, both under the Regia and under the temple of S. Omobono, as well as in Gabii and Ardea (under the mid-5th century B.C. temple at Colle della Noce).<sup>606</sup> In these cases, however, more than one hut was located beneath the later temple, but one of them may have had a partial sacred function. It is of course a question whether this evidence can be transferred to Etruria, but the find of a hut in Tarquinia, Pian di Civita, dated to the Bronze Age/Early Iron Age (located in the area of the later sacred complex), seems to support the theory that this was also an Etruscan phenomenon (*Figs. B175-B176*).<sup>607</sup> That the site was a sanctuary from the early period can be inferred from the votive deposits, one of which contained a number of deer antlers. The hut was demolished in the course of the 9th century B.C., and other more monumental stone structures were built. This hut, however, may have been used solely for sacred purposes, though this is not quite clear. It had a stone foundation, which is fairly rare (see chapter 4).

Postholes and hearths were found on the site of the later temple at Gravisca, thus one or more huts were probably located here, though their function is not clear. They are dated to the late 7th century, possibly as early as 630 B.C. In Cerveteri, San Antonio, a hut was located beneath a Late Archaic temple, but this has so far not been published.<sup>608</sup> Thus it is clear that in this period the sacred and the profane need not be separated spatially.

The earliest temples/sacred buildings are mentioned in a few literary sources. Vitruvius (2.1.5) claims that they were thatched (... *in arce sacrorum stramentis tecta*). According to Varro the earliest roofs were *testudo* (Varro in Servius *ad Aen.* 1.105) (*Quidam tradunt apud veteres omnia templa in modum testudines facta* ...); Varro *Ling.* 5.161 (*locus si nullus relictus erat sub divo, testudo ab testudinis similitudine*). Exactly what *testudo* means is uncertain, but probably a four-faced thatched roof.<sup>609</sup>

According to Varro the earliest Roman temple was built during the reign of Numa: *Omnia regis temporibus delubra parva facta* (Varro *de vita populi Romani* I fr. 13). Dion. Hal., *Ant. Rom.* 1.64.1

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<sup>604</sup> See chapter 2 for bibliographical references.

<sup>605</sup> For a discussion of votive deposits see below.

<sup>606</sup> L. Crescenzi & E. Tortorici in *Ardea* 1983, 26-29.

<sup>607</sup> See the appendix.

<sup>608</sup> See the appendix.

<sup>609</sup> As can be seen from Vitr. 2.1.4 and Festus P 232.

states that "Aeneas constructed the walls, the temples and the other buildings of Lavinium." According to Dionysios the temple was placed on the highest point of the plateau. He describes the temple of the Penates in Lavinium as a hut, and he mentions that they still existed in his times (this is perhaps what is seen on Roman coins and medaillons - see chapter 3).

Specific sanctuaries also existed in the Prehistoric periods in Etruria and Latium, mostly natural sanctuaries, often spring sanctuaries, but these are difficult to recognize archaeologically, unless votives are found.<sup>610</sup> Almost all of this evidence comes from Latium and very little from Etruria.

From the Neolithic to the Middle Bronze Age cave sanctuaries prevailed in Latium. In the Late Bronze Age the caves were left and replaced by open air sanctuaries. From this period the first votive deposits are known, the earliest being Laghetto del Monsignore near Campoverde (in Latium), dated to the 10th century B.C.<sup>611</sup> These votives consisted of food deposits and other finds, primarily pottery. No buildings were connected to these sanctuaries. Some of the Latial votive deposits were located at the site of later known sanctuaries, such as Rome (the Capitol and near the shrine of Vulcan on the Forum), Nemi (the Diana temple), and Monte Cavo (sacred to Jupiter Latiaris).<sup>612</sup>

In Etruria we have very little evidence of cult in the Bronze Age and Early Iron Age. In the Bronze Age we have a few examples of "sacred staircases", such as the one in Sorgenti della Nova.<sup>613</sup> It is possible that the many staircases found in later Etruscan cemeteries, e.g. at Cerveteri, may be a reminiscence of this. Besides this we have evidence of cult from caves. From the Early Iron Age the only securely identified sanctuary is the above-mentioned one on Pian di Civita, Tarquinia.

At San Giovenale, on the acropolis, was the so-called semi-subterranean building or room, consisting of a small rectangular room or building, cut deep into the tufa (*Fig. B168*). It was dated to the last third of the 8th century B.C. and it went out of use some time in the early 7th century B.C. It was constructed around and over a natural crevice in the rock, which once held the waters of a spring, and there was a natural channel at the bottom. The building may have been roofed (postholes). In one corner there was a staircase. No definite religious objects were found, only domestic pottery, spindle whorls, *rocchetti*, and a few bronze objects. The most curious find was a large number of deer antlers and bones, similar to what was found in the early votive deposit at Tarquinia, Pian di Civita. The

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<sup>610</sup> For early cult in Central Italy see especially Lowe 1978; Guidi 1980; A. Guidi, 'Alcune osservazioni sulla problematica delle offerte nella protostoria dell'Italia centrale', *SciAnt* 3-4 (1989-1990), 1991, 403-414; R.D. Whitehouse, 'From secret society to state religion: Ritual and social organisation in Prehistoric and Protohistoric Italy', in N. Christie (ed.), *Settlement and Economy in Italy 1500 BC - AD 1500, Papers of the Fifth Conference on Italian Archaeology*, Oxbow Monographs 41, 1995, 83-88.

<sup>611</sup> Guidi 1980, 149.

<sup>612</sup> Lowe 1978, 143-145.

<sup>613</sup> For cults in the Bronze Age in Etruria see e.g. N. Negroni Catacchio, L. Domanico, & M. Miari, 'Offerte votive in grotte e abitato nelle Valli del Fiora e dell'Albegna nel corso dell'Età del Bronzo: indizi e proposte interpretative', *SciAnt* 3-4, 1989-1990, 579-598; N. Negroni Catacchi, *Sorgenti della Nova. L'abitato del Bronzo Finale*, Origines. Studi e materiali pubblicati a cura dell'Istituto Italiano di Preistoria e protostoria, Florence 1995, 339-346.

presence of deer antlers both places makes it tempting to connect these sanctuaries to a hunting cult, perhaps a kind of Mistress of the Beasts.<sup>614</sup>

Otherwise, we have no definite evidence of votive deposits or sacred objects from this period, but only hoards containing metal objects. The interpretation of these has been debated, but nothing in the Etruscan material seems to suggest that they should be interpreted as votive deposits.<sup>615</sup> On none of the later (6th century B.C. onwards) sanctuaries do we have evidence of earlier cults.

For the reconstruction of huts see chapter 4.

### **THE FUNCTION OF BUILDINGS OF THE LATE ORIENTALIZING AND ARCHAIC PERIODS<sup>616</sup>**

Identification of Etruscan buildings in this period is difficult - especially compared with Greek buildings - because of a number of problems: the poor condition of the preserved buildings; the excavation methods previously used (no stratigraphic excavation, no plans or photographs, no exact find spots, etc.); the many preliminary publications; the fact that many finds, especially from so-called votive deposits, have been mislabelled or simply lost (especially during World War II); and finally the lack of Etruscan literary sources as well as contemporary Greek and Roman sources. Thus, we know very little about political, sacred, and social conditions/institutions in Etruria in this period. Identification of e.g. civic buildings is thus very difficult, since we have no notion of what they looked like, nor can we be sure that they actually existed.

This situation leaves us with a number of unidentified buildings, but I think that in a number of cases it is possible to identify buildings and their function more precisely than has previously been done, especially because of new excavations. In several cases I think a new identification can be justified, especially regarding old temple identifications, and in a number of cases one must conclude that not enough evidence is preserved to identify a building as a temple.

### **SANCTUARIES/TEMPLES**

There is no universal definition of a sanctuary, nor of a temple. I define a sanctuary as a place consecrated for the reverence and worship of the divine, a place where god and man may meet, outside the domestic sphere.<sup>617</sup> A temple I define as a sacred building in a sanctuary, consecrated for a deity/deities. Whether the altar was as important as in Greek religion is not quite clear and as we shall see altars are in fact not common in sanctuaries. This does not necessarily mean that there were none,

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<sup>614</sup> For other evidence of an early Mistress of the Beasts cult see Damgaard Andersen 1992-1993.

<sup>615</sup> For the different interpretations see Bartoloni 1989, 33.

<sup>616</sup> I have previously discussed this briefly in Damgaard Andersen 1993a.

<sup>617</sup> Numerous publications discuss the interpretation of religion, cult, and sanctuaries, especially in the cognitive processual archaeological tradition (e.g. Renfrew 1985, C. Renfrew, 'The archaeology of religion', in C. Renfrew & E.B.W. Zubrow, *The ancient mind. Elements of cognitive archeology*, New directions in archaeology, Cambridge 1994, 47-54). Since the object of this work is architecture I do not intend to go into this discussion.



since altars need not have been permanent stone structures - one would, however, expect at least traces of ashes (but of course this may have been overlooked especially in earlier excavations).

In Etruria and Latium - as elsewhere - a sanctuary<sup>618</sup> may have been anything from a natural sanctuary such as a sacred grove, a holy tree, a spring, or a cave to a large monumental sanctuary with temples and other buildings.

### **The function and role of sanctuaries**

Etruscan cult and religious beliefs are known primarily through later (mostly Roman) sources, in particular Cicero's *De divinatione*.<sup>619</sup> Furthermore the Etruscan religion may be compared to Greek and Roman religion (of which we have numerous written sources) and many Etruscan rituals were taken over by the Romans.

On the basis of the archaeological remains we are able to determine the physical layout - at least to some degree - of the sanctuary, but we do not know much about how cult was practiced and organized.

Many scholars discuss the function of sanctuaries in general. As an example I have chosen Turner. He suggests four main functions of a sanctuary: it acted as a centre, as a meeting point, as a microcosm of the heavenly realm and as an immanent-transcendent presence.<sup>620</sup> By centre is understood both a spiritual centre for the individual man, a centre of reference, but also a physical centre, often the point from which the creation of the world took place. By meeting point is understood a *point of communication between heaven and earth, the place where the gods have revealed themselves and where men go to meet their divinities*.<sup>621</sup> By microcosm is understood *a little piece of heaven on earth*.<sup>622</sup> The sanctuary could in many ways be a mirror of the divine world, such as by the orientation of the temple and by being a reflection in its own proportions and shape. Turner emphasizes that the layout of the sanctuary is not done according to human aesthetic or architectural principles or functional needs, but on the basis of revelation through dreams, oracles, the stars, or other media.<sup>623</sup> By immanent-transcendent presence Turner understands the presence of the cult object, the idol. By such an idol the presence of the god in the holy place is indicated, and through this man can be assured that the divinity visits them and dwell there. ... *the gods are not equally present at all places, ... their*

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<sup>618</sup> There are numerous articles and monographs discussing Etruscan sanctuaries and temples. For a recent bibliography, see G. Moretti, 'Templi etrusca "o di etrusca nome" tra archeologia e trattatistica archeologica', *Atti del II Congresso Internazionale Etrusco, Firenze 1985*, Florence 1989, 173-198. See also *Santuari d'Etruria* 1985; Edlund-Berry 1987; Rendeli 1989; Rowe 1989; P. Barresi, 'Schemi geometrici nei templi dell'Italia centrale', *ArchCl* 42, 1990, 251-281; Glinister 1997.

For sanctuaries in Northern Etruria/the Po valley see G. Sassatelli, 'Culti e riti in Etruria Padana: Qualche considerazione', *SciAnt* 3-4 (1989-1990), 1991, 599-617.

<sup>619</sup> For Etruscan religion in general see G. Dumézil, *Archaic Roman religion*, Chicago 1970 (esp. the appendix: the religion of the Etruscans, pp. 625-696); Pfiffig 1975; Torelli 1986. For literary sources see Torelli 1986, 160-162.

<sup>620</sup> Turner 1979, 18-33.

<sup>621</sup> Turner 1979, 22.

<sup>622</sup> Turner 1979, 26.

<sup>623</sup> Turner 1979, 28.

*presence at the sanctuary transcends, as it were, their immanent presence elsewhere.*<sup>624</sup> These four functions relate to sanctuaries both with and without temples, but in many cultures the temple, the house of god (first a simple shelter for the idol, then a shrine, and finally a temple) emphasizes the importance of the divinity.

Turner has suggested two main types of temples: a temple house and a meeting house. The temple house he considers the home for the god, while the meeting house was *not a house for the god but a house for the people of the god, not a temple but a meeting-for worship house*. While the latter is used primarily in Semitic religions (and Christianity), the former was the most common type in the ancient world, and probably also in Etruria and Latium. This can be seen from the small size of many temples - with the exception of the Telesterion at Eleusis and the Sanctuary of the Bulls at Delos no ancient temple was large enough to have accommodated a congregation.

Mertens suggests that the Etruscan temple - as opposed to the Greek temple as the home of the god - should be defined as *posto elevato dell'augure orientato verso lo spazio determinato e delimitato del "templum" davanti al tempio stesso.*<sup>625</sup>

Exactly what the Etruscan temple was used for is uncertain: was it considered the "home" of the god, the *deorum sedes*, used for worship, used as a "museum"/storeroom for votives like many Greek temples or what. After looking more closely at the sanctuaries, I will return to this problem.

We know very little about the Etruscan priesthood, except that there were haruspices, taking omens from especially livers, and augurs, taking omens from the sky and the birds. But the exact connection between the priests and the sanctuaries is obscure.

C. Renfrew has compiled a useful list of "What we wish to know" (i.e. about sanctuaries in general).<sup>626</sup> He divides his 41 questions into three main groups: A: the practice of the cult; B: beliefs underlying the cult, and C: the place of the cult and religion in society.

If these groups are adapted to sanctuaries in Etruria and Latium in the Archaic period, the practice of the cult (point A) involved primarily the layout of the sanctuary and how the cult was conducted: what was the exact function of the temples (did all sacrifices take place outside and was the temple considered the home of the god?), how was the cult organized, was the sanctuary in use for the entire year or just for a period of time, who participated in the cult (the entire population/city/village, a specific family, a specific gender<sup>627</sup> or others), and how far would one travel to attend a cult.

The beliefs underlying the cult (point B) include the nature of the deity (or deities).

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<sup>624</sup> Turner 1979, 32.

<sup>625</sup> D. Mertens, 'Parallelismi strutturali nell'architettura della Magna Grecia e dell'Italia centrale in età arcaica', in P. Padula (ed.), *Scritti in onore di D. Adamesteanu. Attività archeologica in Basilicata 1964-1977*, Matera 1980, 51. This passage is discussed by Prayon 1993a.

<sup>626</sup> Renfrew 1985, 25-26.

<sup>627</sup> We know for instance that gender-specific cults existed in Rome.

Finally (point C) the place of the cult and religion in society primarily deals with the organization of the sanctuary: who built the sanctuaries/temples and who paid for them, who decided where they were to be placed, how were they administrated, and the role of the priests/priestesses.

Unfortunately, not many of these questions can be answered. For Renfrew's point B (the beliefs underlying the cult) see the discussion of the gods below. In a few cases we know who dedicated the temples. Especially in the case of the temples/sanctuaries in Rome we know that these often were dedicated by the kings, e.g. the Fortuna temples dedicated by Servius Tullius or the Capitoline temple dedicated by Tarquinius. In general the evidence for temples in Latium suggests that temples were dedicated by individuals/families.<sup>628</sup> In Etruria we have only one such piece of evidence, namely the dedication on the gold tablets at Pyrgi, stating that the king of Cerveteri, Thefarie Velianas, dedicated this sanctuary. But this does not necessarily mean that only kings could build temples.

Besides the sacred functions, some sanctuaries had a "secondary" function (see below), and other events than sacred could take place at sanctuaries, often in connection to a religious festival, such as trade fairs. The finds of kilns and moulds for terracotta figurines and architectural terracottas suggest that many sanctuaries were centres of production (and thus important economical factors, not just producers of souvenirs),<sup>629</sup> and the numerous inscribed votives suggest that scribes worked at sanctuaries.<sup>630</sup> Treaties could also be signed and kept at sanctuaries. Sportive events such as horse race must also have taken place - these events may also have been considered sacred.<sup>631</sup> The large sanctuaries must thus have functioned as cultural centres.

### **Ancient terms for sanctuaries and temples**

The ancient sources use several terms when describing these temples/sanctuaries. Many of these terms are discussed by Sextus Pompeius Festus, *De sinificatu verborum*.<sup>632</sup>

*Lucus* means a scared grove, such as *Lucus Feroniae*. According to the 12 tables (Cic. *De leg.* 2.19) *Lucos in agris habento et Larum sedes*, thus primarily in the country, though *luci* are also found in the towns.

*Fanum* means a holy place, a sanctuary, not a temple (as is clear from Livy 10.37.15: *sed fanum tantum id est locus templo effatus*). It may or may not have a temple building. Examples are *Fanum Voltumnae* and the Regia in Rome was also called a *fanum*.

*Templum* designates a space in the sky or on the earth marked out by an augur for taking auspices (*augurii aut auspicii causa*, according to Varro *Ling.* 8.8). This (earth) place eventually came to mean

<sup>628</sup> Smith 1996, 226.

<sup>629</sup> For an example of this (in Campania) see J.-P. Morel, 'Aspects économiques d'un sanctuaire (Fondo Ruozzo à Teano, Campanie)', *SciAnt* 3-4 (1989-1990), 1991, 507-517.

<sup>630</sup> G. Colonna in *Santuari d'Etruria* 1985, 27.

<sup>631</sup> Colonna 1993a.

<sup>632</sup> For a discussion of these see F. Castagnoli, 'Il tempio romano: questione di terminologia e di tipologia', *BSR* 52, 1984, 3-20; Glinister 1997, 63-64.

a building for the deity, the temple or in some cases the sanctuary as such, thus the meaning of the word is not always clear. The word *templum*<sup>633</sup> seems to be derived from the Greek *temenos*. In the story of Romulus' dedication of a *templum* to Jupiter Feretrius in Rome (Livy 1.10.5-7) the term must mean a sacred area, not a specific building ("By an oak which the shepherds held sacred, at the same time as he made his offerings, he marked out the limits of a *templum* ... "Jupiter Feretrius," he said, to thee I, victorious Romulus, ... dedicate a *templum* within the bounds which I have even now marked off in my mind ... This was the origin of the first *templum* that was consecrated in Rome."<sup>634</sup> Dion. Hal., *Ant. Rom.* (2.34.4), however, calls this a *neos*, which would imply a temple building. He states that it measured less than 15 feet, i.e. less than 4.5. m, which indicate a small shrine/enclosure.

Another term is *aedes*, evidently used about a shrine, a building smaller than a temple (building), but often the word is also used for a temple building.

*Sacellum* was defined by Festus 422 L as *sacella dicuntur loca dis sacrata sine tecto* and according to Trebatius in *Gell.* 8.12.2 it was *locus parvus deo sacratus cum area*.

*Sacrarium* (which was e.g. used about the Ops Consiva in the Regia in Rome) was defined by Ulpianus (*Dig.* 1.8.9): *sacrarium est locus in quo sacra reponuntur, quod etiam in aedificio privato esse potest*.

The Greek sources (primarily Dion. Hal.) use the words *neos/naos* and *hieron*. Though *naos* normally refers to the temple/cella and *hieron* to the sanctuary itself, this distinction does not seem to be applied to the Italic material.

### **The identification of sanctuaries and temples**

As mentioned above the identification of a sanctuary and a temple is not always easy. Sanctuaries may have been placed anywhere and there is no easy way to identify a temple building, since many different types are known (see below). Many "cult objects" may not have survived or because of our cultural heritage we may not be able to recognize them. This is especially the case with natural sanctuaries (see below). When sites are identified as sanctuaries and buildings as temples such identifications must be based on clear evidence of sacred nature. In the following I will list possible characteristics for the Archaic Etruscan period, and discuss their value. It must be emphasized, however, that this is no checklist. The evidence as a whole must be viewed in each case. In *Diagrams 9-10* the characteristics for each temple can be seen. In order not to make too many diagrams these also show the architectural characteristics for the temples (ground-plan, size, columns etc.).

### *Votive deposits,<sup>635</sup> cult objects, and sacred symbols*

<sup>633</sup> For the word *templum* see Ogilvie 1965, 92; Edlund 1987, 37-38; Glinister 1997, 63-64.

<sup>634</sup> For a discussion of this see Edlund 1987, 37-38 (with further references).

<sup>635</sup> The only general treatments of votive deposits are Hackens 1963; Piffig 1975, 83-88; Bonghi Jovino 1976 (esp. the introduction 5-13); Edlund 1987, esp. 134-137; Glinister 1997, 66-67. For the later periods see also A. Comella, 'Tipologia e diffusione dei complessi votivi in Italia in epoca medio- e tardo-republicana', *MEFRA* 93, 1981, 717-803.

Votive deposits were numerous in Latium from the prehistoric periods.<sup>636</sup> How numerous votive deposits were in Etruria is uncertain. They are often found in connection to sanctuaries, but votive deposits may also be found isolated, i.e. no other evidence of cult such as a temple or an altar is found (e.g. the Brolio deposit).<sup>637</sup> The problem with these deposits is that most of them were excavated a long time ago, and often no excavations in the vicinity were carried out, thus we cannot be sure that they were in fact isolated. Most of our evidence regarding votive deposits consists of bronze statuettes, preserved in museums around the world, without any context or in some cases only the name of the city is known.<sup>638</sup> Whether these votives came from monumentalized sanctuaries or isolated votive deposits we do not know.

Defining a votive deposit is problematical. The modern (Italian) terminology is not consistent, using both modern terms such as *stipe votiva* and ancient terms, *favisae*.<sup>639</sup> In almost all publications the definition of a votive deposit is taken for granted, and only few have tried to define a votive deposit. M. Bonghi Jovino has suggested that it is ... *un intenzionale cumulo, costituito da ex-voto che, per varie ragioni, non restano più a lungo esposti nei templi*.<sup>640</sup> Regarding the placing, she continues *I depositi votivi vanno però considerati in un ambito ben preciso e determinato*, a point which is also stressed by others.

The most important problem, however, is only briefly discussed by Bonghi Jovino, namely **how** to avoid confusing votive deposits with rubbish layers and dumps. She mentions that one must not confuse these two and that an ancient dump (*scarico*) ... *non deve necessariamente o esclusivamente contenere ex voto bensì questi possono essere stati scaricati insieme con altri oggetti, di diverso valore e significato*.

Before proceeding I want to illustrate the problem by examining two votive deposits, the first of which is a clear votive deposit and well published, and the other which is very problematic and poorly published.

At Vulci, Fontanile di Legnisina, a votive deposit has been found next to a temple (*Fig. B242*). The votive deposit was placed on the northern and eastern side of a large altar, especially in the

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<sup>636</sup> For specific votive deposits in Latium see Lowe 1978; Guidi 1980; P.-G. Gierow, *The Iron Age culture of Latium*, *ActaRom* 4°, 24:1, Lund 1966, esp. 35-46; G. Bartoloni, 'Esibizione di ricchezza a Roma nel VI e V secolo: Doni votivi e corredi funerari', *SciAnt* 1, 1987, 143-159; G. Bartoloni, 'I depositi votivi di Roma arcaica. Alcuni considerazioni', *SciAnt* 3-4, 1989-90 (1991), 747-759. A new series of publications on votive deposits has been started, which greatly increase our knowledge (Comella 1986; Comella & Stefani 1990).

<sup>637</sup> A. Romualdi, *Museo Archeologico Nazionale di Firenze. Catalogo del deposito di Brolio in Val di Chiana*, Rome 1981, 35; A. Romualdi in *Santuari d'Etruria* 1985, 162-164.

<sup>638</sup> For Etruria see A. Romualdi, 'Luoghi di culto e depositi votivi nell'Etruria settentrionale in epoca arcaica: considerazioni sulla tipologia e sul significato delle offerte votive' *SciAnt* 3-4, 1989-1990 (1991), 619-649; B. Ginge, 'Votive deposits in Italy: new perspectives on old finds', *JRS* 6, 1993, 285-288. For votive statuettes see Richardson 1983.

<sup>639</sup> For a discussion of these terms see Hackens 1963.

<sup>640</sup> Bonghi Jovino 1976.

northeastern corner, and in a natural depression. Within the deposit a large amount of material was found. Most of it is dated to the 4th to the 1st century B.C. (e.g. a large amount of terracotta statuettes and anatomical votives), but a few Archaic fragments were found (early 5th century B.C.): a naked male bronze statuettes, and fragments of bucchero and Attic red figured vases. Votive inscriptions to Uni were found, as well as some to Vei, but dated to a later period. In this case there can be no doubt that these finds are to be interpreted as cult objects (for the Archaic period statuettes and for the later periods anatomical votives and votive inscriptions), placed in a votive deposit (within a natural cavity) and thus clearly defined.

On the other hand the so-called votive deposit at Piazza d'Armi in Veii is much more problematical. Stefani, who excavated the site, maintained that the two cisterns found connected with the so-called *oikos* must have contained votive deposits. There is nothing to support this and they might as well have been ordinary cisterns. The so-called votives (consisting only of domestic pottery, spindle whorls, *rocchetti*, and two Attic sherds)<sup>641</sup> came from all over the site and from different levels!<sup>642</sup> In this case I think it is quite clear that this cannot in any way be interpreted as a votive deposit.

Thus what is a certain indicator of cult are different types of cult objects. These could be statues, statuettes, figurines, figures cut out of bronze sheet (as seen in Latium), anatomical votives, and votive inscriptions. Unfortunately these are not common in the Orientalizing and Archaic periods. Statuettes are seen from the second half of the 6th century B.C. and anatomical votives are known from the early 5th century B.C., but they do not become common until the 4th century B.C. and later. Bronze sheet figures, however, are fairly common in Latium. All these objects are found solely in sanctuaries. In some cases also weapons were used as votives, though rarely.<sup>643</sup> Animal statuettes are not common in votive deposits and are only known from a few rural sites such as Monte Becco and Brolio.<sup>644</sup> Besides these objects it is likely that many more existed that we are either not able to recognize today or that may not have been preserved. Food offerings were probably numerous, but remains of such are rarely preserved except for bones. Even if bones were found in sanctuaries, they are often not published or only poorly published.

Miniature pottery is often used as indicator of a votive deposit. Numerous examples are known from Latium. As an example can be mentioned the deposit in Lavinium with 30,000 fragments of miniature pottery, restored as 1527 vases.<sup>645</sup> In the case of such a large number, an identification as a votive deposit seems reasonable, even if no other cult object is present. In Etruria miniature pottery is

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<sup>641</sup> See also Sheffer 1990, 188.

<sup>642</sup> *Il materiale che doveva appartenere alla stipe votiva si trovò, tranne qualche piccole oggetto, frantumato e sparso a varia profondità in tutta l'area scavata ed anche dentro le due cisterne* (Stefani 1944, 265-266). For this votive deposit see also Bonghi Jovino 1976, 17-18 (although she does not in this case seem to follow her own definitions of a votive deposit as a well defined area). See further the appendix.

<sup>643</sup> Edlund 1987, 136 (with further references).

<sup>644</sup> Edlund 1987, 137 (with further references).

<sup>645</sup> Fenelli 1989-1990, 490 (see also the appendix).

fairly rare and seems to consist mainly of miniature kyathoi (they are found in Civita Castellana, Celle, Lago dell'Accesa, Roselle, *Casa dell'Impluvium*, Roselle, the votive deposit in square E 11-12, Stigliano, Veii, Località Campetti). Besides kyathoi a miniature *bacile* was also found at Lago dell'Accesa, at Stigliano miniature *atingittoi* and *ciotoline*, and at Celle miniature bucchero kantharoi, *atingittoi*, and small cylindrical impasto vases. At Narce, Monte Li Santi, miniature black glazed cups were found in the votive deposit in room A, but they probably belong to a later period. These miniature vessels have thus primarily been found in a domestic context though a few in a sacred context (Celle and the deposit at Roselle).

Several scholars have suggested that the kyathoi were part of a "domestic cult",<sup>646</sup> but considering their shape it seems most likely that they had a practical purpose and thus should not be considered "miniature". The other shapes may also have had a practical purpose. Furthermore, "domestic cult" is a problematic term, and apart from the evidence at the "*palazzi*" we have in fact no evidence for domestic cult in the Archaic period.

While many religions have a number of more or less easily recognisable sacred object,<sup>647</sup> Etruscan religion only seems to have used few of these - or at least we do not recognize them. At the recent excavations in Tarquinia, Pian di Civita, however, the unique find of the bronze "trumpet-lituus", the shield and the axe, ceremonially buckled before deposition, can clearly be interpreted as a sacred symbol of some sort, even if the significance is obscure. The question, however, is whether a lituus (the sacred sign of an augur) in itself can be regarded as a cult object.<sup>648</sup> Besides the one from Tarquinia, only one lituus is found in a sanctuary (Sasso di Furbara) - on the other hand a lituus cut out of a bronze sheet was found in a tomb in Cerveteri, dated to the 6th century B.C., and lituus are seen on several relief scenes such as on a stele from Fiesole and on the frieze plaques (the seated figures) from Murlo. Thus I think that a lituus may be regarded as the sacred symbol of the augur but not as a cult object in itself. In the case of the find from Tarquinia, the combination of the "trumpet-lituus", the shield, and the axe and the fact that they seem to have been ceremonially buckled before being placed in a deposit, make these cult objects.

The question is if we can define votive deposits that do not contain any recognisable cult objects.<sup>649</sup> As we saw in Vulci the deposit was clearly defined, being placed in a natural cavity. If no cult objects are present, I believe that very good reasons should be present for interpreting a group of finds as a votive deposit. At least it should be clearly defined, but it is not possible to make an overall rule - each deposit must be considered in its own right. As an example of such a votive deposit may be mentioned

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<sup>646</sup> Donati 1994, 97 (with further references).

<sup>647</sup> See e.g. Renfrew 1985.

<sup>648</sup> For lituus see Pfiffig 1975, 99-100; Torelli 1986, 220.

<sup>649</sup> I have previously argued (Damgaard Andersen 1993a, 74) for the following definition: 1. a votive deposit must be clearly demarcated, in a pit or a separate stratum, 2. it should contain artefacts that are not solely found in habitation area or necropoleis, for instance, votives, and 3. it should contain a substantial number of artefacts.

Even if most - if not all - securely identified votive deposits apply to these points, it is perhaps safer to put emphasis on the cult objects as an overall defining factor and then view the remaining deposits one by one.

the early votive deposit at Tarquinia, Pian di Civita, where a clearly defined deposit in a natural cavity was found. This deposit was used from the Late Bronze Age to the early 5th century and it seems to have played an important role in the layout of the sanctuary. Besides antlers were found around it which may suggest cult. Even if no cult objects of the above-mentioned type were found, it seems reasonable in this case to interpret the deposit as a votive deposit.

Another problem is the number of votives in a deposit. Several votive deposits seem to be fairly small, while others are large. A very large number of artefacts in one place may sometimes be an indicator of a votive deposit. Regarding Greece Ainian also maintains that a votive deposit should contain a large number of objects ("It is often the discovery of *quantities of the same class of objects* in one single site which leads one to identify them as votives).<sup>650</sup>

It is uncertain how votives were exhibited in the sanctuary before they were buried in the deposit. They could have been placed on shelves or bases, as the evidence from a number of bronze statuettes seems to imply, since they show that the figurine was inserted into a stone object, and similar evidence can be seen from indentations in rocks, where the bronzes would have been attached.<sup>651</sup> The platforms at Cannicella and Tarquinia, Pian di Civita, also suggest that they were exhibited on such platforms. We also have evidence of vases in sanctuaries being placed on columns, such as on a Caeretan hydria at the National Museum in Copenhagen, though in this case we cannot be certain if an Etruscan or a Greek sanctuary was intended.<sup>652</sup> Votives could also be hanging from trees, which we know was the custom in Greece and Southern Italy, as can be seen from the vase now in the British Museum.<sup>653</sup> When and how they were placed in deposits we do not know, but it is natural to assume that it was done when there was no more room or at certain intervals, such as a religious festival once a year. I do not find it likely that a single or a few votives were buried separately, unless of a very specific kind such as the gold tablets from Pyrgi.

From Greek sources we have evidence that metal votives were melted down in antiquity and the metal used for other items within the sanctuary.<sup>654</sup> This may also have been the case in Etruria and Latium, and many votives are thus "missing".

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<sup>650</sup> A. Mazarakis Ainian, *From rulers' dwellings to temples. Architecture, religion and society in early Iron Age Greece (1100 - 700 B.C.)*, SIMA 121, Jonsered 1997, 285.

<sup>651</sup> E.g. the bronze votives from Ghiaccio Forte, dated from the 6th century B.C. onwards (A. Talocchiono in *Santuari d'Etruria* 1985, 157-159).

<sup>652</sup> K. Friis Johansen, 'Eine neue caeretaner Hydria', *OpRom* 4, 1962, 61-81; Colonna 1993b, 62, fig. 11.

<sup>653</sup> British Museum E 494 (C.H. Smith, *Catalogue of the Greek and Etruscan Vases in the British Museum, vol. III. Vases of the finest period*, London, 1896, 300-302, pl. XVI). On fragments of a bell-shaped crater is seen Herakles sacrificing in front of a burning altar. Behind the altar is a Doric column with a xoanon and next to that votive pinakes hanging from a tree. The vase is dated to the second half of the 5th century B.C.

<sup>654</sup> T. Linders, 'The melting down of discarded metal offerings in Greek sanctuaries', *SciAnt* 3-4 (1989-1990), 1991, 281-285.



That votive deposits also could have another form is suggested by some scholars, namely offerings thrown in a ditch by worshippers as part of a ritual (such as banquet or drinking service).<sup>655</sup> Such deposits are claimed to have a clearer stratigraphy, but this may also be the case in "ordinary" deposits if the votives were buried regularly. One thing that would separate the two is that these ritual offerings are likely to contain more domestic pottery, while "ordinary" deposits also would contain statuettes, anatomical votives etc. This type of votive deposit - if it should indeed be called a votive deposit - is thus even harder to identify than "ordinary" deposits.

Building materials buried beneath or near a later temple (or other types of buildings) are by some scholars considered a third type of votive deposit, the theory being that these remains were buried out of respect for the early building/temple.<sup>656</sup> Such deposits are known from a number of sanctuaries, e.g. the architectural terracottas buried together with the gold tablets at Pyrgi or the architectural terracottas from Civita Castellana, Vignale. A similar phenomenon can be seen in Latium, e.g. the architectural terracottas buried in the votive deposits underneath the *Lapis Niger*, considered belonging to the cult of Vulcan or the ones found in the votive deposit on the Esquiline in Rome. In general architectural terracottas are often found in votive deposits, both in Rome and elsewhere. Edlund has suggested that the burial of the architectural remains from the Upper Building at Murlo may have had a sacred significance.<sup>657</sup> When the building was demolished (for whatever reason), the material was buried in several "dumps", both within the building and outside. Edlund suggests that this was done as a sort of *damnatio memoriae*. However, much of the material was left where it fell when the building was demolished, e.g. many of the architectural terracottas.

When looking at the evidence from various buildings/sites the theory remains problematic, since we have several examples of sites that were totally cleaned after destruction. On other sites architectural terracottas and other building material from older buildings/temples were used as fill for the new buildings, and in most cases nothing indicates that these were treated as sacred objects in any way. On the other hand Varro (in Gell., *NA* 2.10.3) refers to *favisae* under the temple on the Capitol, where decorations fallen from the building and other votives were kept. That specifically building remains are mentioned suggest that these were considered sacred. Perhaps older building remains were only considered sacred in specific cases, e.g. because of omens, buildings destroyed by natural forces/interference by the gods such as lightning or similar events.

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<sup>655</sup> Such as Lowe 1978, 142.

<sup>656</sup> E.g. Hackens 1963, 91; Glinister 1997, 65-66; F. Glinister, 'Sacred rubbish', forthcoming. Pfiffig (1975, 86) on the other hand stresses that votive deposits should not be confused with *fossae* or *vascae* containing *ex votos*, buried after the destruction of a temple; i.e. "sacred dumps".

<sup>657</sup> For a discussion of this see Edlund 1987, 91; I. Edlund-Berry, 'Power and religion: how social change affected the emergence and collapse of power structures in Central Italy, *The archeology of power, Papers of the fourth conference of Italian archaeology*, 1991, 161-172. For a critical comment see also P. Lulof, 'An early Etruscan terracotta workshop: the seated and standing statue acroteria from Poggio Civitate (Murlo)', *BaBesch* 70, 1994, 219.

Besides the above-mentioned Varro text literary sources on votive deposits are few. Some sources, however, mention that when temples had too many offerings/votives to display they were buried in *favisae*.<sup>658</sup>

One important question is where the votives were made. We have examples of kilns/workshops or evidence of the use of local clay in almost all types of sanctuaries. There does not seem to be any distinction between the types of votives within the different types of sanctuaries.<sup>659</sup> So far we have no evidence of production from natural sanctuaries - which is only to be expected - nor any evidence from the few sanctuaries in cemeteries. Kilns are known in a few urban and sub-urban sanctuaries, such as Lavinium (the 13 altars) and in Tarquinia, Pian di Civita (a furnace was also found here) (for these see below). Kilns are also known at the sanctuaries/"palazzi" at Montetosto and Narce, Monte Li Santi. Regarding workshops outside sanctuaries (see below) we have no evidence that they produced sacred objects. Is it thus possible to conclude that votives (figurines, anatomical votives etc.) always were made within the sanctuary? A. Romualdi has for instance suggested that the large find of bronzes at Brolio could in fact have been a production centre and not a votive deposit.<sup>660</sup> Since the bronzes are dated from the late 7th to the early 5th centuries B.C. this is hardly likely. Especially in the 4th century B.C. and later do we have evidence that bronzes and terracottas found at different sanctuaries were made from the same mould. This either means that the objects were made at one (large/important) sanctuary and then "exported" to the other sanctuaries or - more likely - that the artisans and the moulds travelled. And what about ceramic votives? Obviously Greek pottery found in sanctuaries was not made there, but we have no way of knowing whether or not local pottery was made in the sanctuary. Regarding incised votive inscriptions these must have been made at the sanctuary, though it cannot be excluded that simple votive inscriptions (such as a dedication on a vase) could have been made by the owner, a friend or relative.

#### *Votive inscriptions*

Inscriptions with names of deities clearly identify a building as a temple - provided it is certain to which building the inscriptions belong and that both are from the same period.<sup>661</sup> As examples of buildings identified as temples because of votive inscriptions can be mentioned temple A and B at Pyrgi (several inscriptions, among them the gold tablets with a dedication to Uni/Astarte); Pyrgi, *Area Sud* (dedications to Suri and Cavatha); the temple at Gravisca (dedications to the Greek Hera, Aphrodite, Demeter and Apollo, and to the Etruscan Uni, Turan, and Vei); and Punta della Vipera (dedication to Menerva). See also *Diagrams 9-10*.

<sup>658</sup> For a discussion of this see Hackens 1963.

<sup>659</sup> Edlund 1987, 137.

<sup>660</sup> A. Romualdi, *Museo Archeologico Nazionale di Firenze. Catalogo del deposito di Brolio in Val di Chiana*, Rome 1981, 35. For a discussion of this see also Edlund 1987, 82, 135.

<sup>661</sup> For Etruscan votive inscriptions see M. Cristofani, 'Il 'dono' nell'Etruria arcaica', *PP* 161, 1975, 132-152; Colonna 1989-1990, 875-903.

Most of these inscriptions belong to the Late Archaic period - in the early Archaic period inscriptions were mostly in the form of the name of the worshipper and in this case it is difficult to determine if an inscription is votive or merely stating ownership,<sup>662</sup> unless other words specify that the object was a donation. Several words indicate an inscription as votive such as *mulu/muluvanice* or *turuce*, meaning gifts/donating gifts, or words referring to "the Sacred" (such as *cver*, *tinscvil*, and *alpan*). In some cases dedications were made to "the gods", *Aiser*, or *flere*. It should, however, be mentioned that such inscriptions are also found in cemeteries, e.g. in Cerveteri (many votive inscriptions are known from Cerveteri, either found in cemeteries or without context.<sup>663</sup> *Mulu*, i.e. votive gift, is often mentioned, especially from the Early Archaic period).<sup>664</sup>

An example where inscriptions cannot be used is the so-called Hera temple at Cerveteri. Here votive inscriptions to Hera dating to the 3rd century B.C. were found. This does not necessarily prove that the Archaic terracottas found on the site decorated a Hera temple.

Regarding Latium only few votive inscriptions have been found:<sup>665</sup> Satricum (*Lapis Satricanus*), the inscription *Apolonos* from Civita Castellana (in the Faliscan area), and the inscription to Castor and Pollux from the sanctuary of the 13 altars at Lavinium (*Castorei Podlouqueique quois*), though a mixture of Latin and Greek.<sup>666</sup>

Several fragments of vases found in a sanctuary context have an incised X (both in Etruria and Latium: e.g. found at Roselle, the votive deposit near the *Casa del recinto*, San Giovenale, the building by the bridge, Tarquinia, Pian di Civita,<sup>667</sup> Rome, the Palatine, and Velletri). This has been interpreted as a sacred mark, though the precise significance is uncertain. Since such X's are also common on pottery in tombs, they need not have any sacred meaning. Sometimes other letters are incised, such as in Roselle, the deposit near the *Casa del recinto*.

### *Altars*

An altar placed close to a building can identify the building as a temple, but at most sanctuaries we have no evidence of altars.<sup>668</sup> Nor need a sanctuary have a temple because there is an altar, such as can

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<sup>662</sup> Colonna 1989-1990, 877.

<sup>663</sup> Marchesini 1997, cat. nos. 30, 52-55, 57-60, 62, 70-76, 81, 84-86, 90, 109, 118, 150, 161, 193.

<sup>664</sup> Marchesini 1997, e.g. cat. no. 60. The inscription *mi hirumesi mulu* on a bucchero oinochoe, dated to 630-580 B.C., was found in the cemetery of Monte Abatone, T. 304.

<sup>665</sup> For Latin votive inscriptions see S. Panciera, 'Le iscrizioni votivi latine', *SciAnt* 3-4 (1989-1990), 1991, 905-914.

<sup>666</sup> For the few Latin votive inscriptions found outside sanctuaries (at least not recognized sanctuaries) see S. Panciera, 'Le iscrizioni votivi latine', *SciAnt* 3-4 (1989-1990), 1991, 905-914.

<sup>667</sup> For Tarquinia the excavators suggest that the plates with the X's could have been used for sacred banquets.

<sup>668</sup> For altars in general see Pfiffig 1975, 71-83; Steingraber 1982; Euwe-Beaufort 1985; Edlund 1987, 138; Thuillier 1990.

be inferred from the evidence on the Capitoline hill with the altars from the reign of Tarquinius Priscus, i.e. in the early 6th century B.C., mentioned by several literary sources.<sup>669</sup>

Stone altars are found in Gravisca, Marzabotto, the acropolis, Orvieto, Cannicella, Pyrgi (both the main sanctuary and *Area Sud*), Veii, Portonaccio, and Vulci, Fontanile di Legnissima. In a few sanctuaries later altars are known such as Punta della Vipera (4th century B.C.). Uncertain altars are found at Tarquinia, Pian di Civita. In Latium altars are only found in Rome, S. Omobono. To these should be added altars not related to monumental temples (e.g. the 13 altars at Lavinium) and altars mentioned by literary sources, but not located (such as the altars on the Capitol before the erection on the Capitoline temple). Altars are also known from sanctuaries/"palazzi" (Montetosto and Narce, Monte Li Santi, and possibly also at Rome, the Regia). Smaller terracotta altars, *arulae*, are also known, but they are usually dated to a later period (the one in Cerveteri, S. Antonio, is undated).

According to Augustine *De civitate dei* 4.31, Plut. *Numa* 8.8, and Tertullian *Apologeticus* 25.12 only tufa altars were placed in the sanctuaries, no cult statues, even as late as the early 6th century B.C.

Altars were also common in cemeteries in Etruria, but none have been found in Latium. How such altars were used can be seen from a relief on a circular Chiusine cippus/base found at Perugia, dated to before 520 B.C. (*Fig. 142*).<sup>670</sup> On one side a prothesis scene is seen, and on the other side a sacrifice. In the centre is an altar with a burning sacrifice, and on the left side are eight and on the right side nine persons. Some are carrying *lituus*. Another example can be seen on another Chiusine relief from a sarcophagus.<sup>671</sup> On one of the short sides is a burning altar with three persons on either side and a cow. A stylized tree signifies that the event is took place outdoor. On one of the long sides a burning altar with a banquet scene around is also depicted. Another example of an altar "in function" can be seen on one of the painted terracotta slabs from the Banditaccia cemetery at Cerveteri, showing a man in front of an altar with a burning sacrifice, probably also taking place in a cemetery (*Fig. 93*).<sup>672</sup> The slab is dated to the third quarter of the 6th century B.C.

In the sanctuary in the cemetery of Cannicella at Orvieto, an altar was found, dated to the late 6th or the 5th century B.C.

For a further discussion on cult in cemeteries see below (temples in cemeteries).

A scene on a Caeretan hydria with an ox about to be slain by an axe in front of a column with a bowl and an altar with fire probably shows a sacrifice in front of an altar at a sanctuary.<sup>673</sup>

Altars may have been used for libation, burning sacrifices, or for votives.<sup>674</sup> Edlund suggests that Etruscan altars primarily indicate a funerary function of the sanctuary or that they were used for

<sup>669</sup> E.g. Dion. Hal. 3.69.5; Servius ad *Aen.* 9.488; Livy 1.55.2 and 5.54.7.

<sup>670</sup> Jannot 1984, 151-153, cat. no. D.I.14, figs. 519-524; Thuillier 1990, 247, pl. LXXg.

<sup>671</sup> Jannot 1984, 23-25, no. B,I,5, figs. 105-106.

<sup>672</sup> F. Roncalli, *Le lastre dipinte da Cerveteri*, Florence 1965, 18-19, cat. no. 3, tav. III; F.R. Fortunati in *Santuari d'Etruria* 1985, 43, no. 1.30 (ill.).

libation.<sup>675</sup> Although altars were common in cemeteries, they are found in sanctuaries, and I see no need why they should be used only for libation. The scene on the Caeretan hydria also goes against this theory as does the evidence for the meat sacrifice in the sanctuary at Narce, Monte Li Santi.

### *Cult statues*

The find of a cult statue in a building can identify it as a temple, but preserved cult statues are rare in Etruria and Latium in the Archaic period, in fact it is a question whether they existed at all, and if they did, from what period.<sup>676</sup> It is, however, possible that they were made of wood or another perishable material (see below). Only two (or three) possible Etruscan cult statues from the Archaic period are known.

At Celle, outside Civita Castellana, a female tufa head with remains of a bronze leaf crown, and two statues of seated winged lions were found. Colonna interprets the female head as part of the cult image, and suggests that the two winged lions were placed on either side of the entrance. He dates the sculptures to the first half of the 6th century B.C.,<sup>677</sup> and thus he dates the early temple accordingly, even if the earliest architectural terracottas date from the Late Archaic period. Colonna interprets this as the temple was undecorated until this period. Other explanations are possible: the statues could have been moved from another place or belong to another structure in the vicinity (especially since they are found not directly associated with the temple). Since the sanctuary was located near a cemetery, it is most likely that they originated from a tomb in the vicinity. The statues could also be votives.<sup>678</sup> And finally it is possible that the statues are later, dated to around 500 B.C., as suggested by Comella.<sup>679</sup> In either case the problem is that we have no parallel for statues in sanctuaries, only in cemeteries. Thus there is very little evidence for interpreting this female head as a cult statue, and I do not believe that it is possible to date the temple as early as the first half of the 6th century B.C.

The female statue from Cannicella is also unique, being a reworked Greek marble kouros and found in a sanctuary within a cemetery (*Fig. B102*). The kouros is dated to 540-530 B.C., but when the kouros was changed into a goddess is not possible to say. The statue has been interpreted as a cult statue, but this is uncertain. One important question is whether or not the statue stood where it was found (see *Fig. B101*), i.e. in the open, whether it was placed in either a "primitive" shrine (of wood), or stood in the more monumental building. Since the statue is very weathered and had a hole for a meniskos, I think it is likely that it stood in the open, and thus need not be interpreted as a cult statue,

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<sup>673</sup> K. Friis Johansen, 'Eine neue caeretaner Hydria', *OpRom* 4, 1962, 61-81; Colonna 1993b, 62, fig. 11.

<sup>674</sup> Euwe-Beaufort 1985, 103.

<sup>675</sup> Edlund 1987, 138.

<sup>676</sup> Not much is written on Etruscan cult statues. See Pfiffig 1975, 94-98; Richardson 1976, 128.

<sup>677</sup> *Santuari d'Etruria* 1985, 111.

<sup>678</sup> For a general discussion of cult statues contra votive statues see Renfrew 1985, 22-24.

<sup>679</sup> Comella 1986, 183.

but may have been a votive.<sup>680</sup> A further argument against it being a cult statue is that fragments of more marble statues were found.

On a painted terracotta slab from Cerveteri a statuette/statue on a pedestal is seen, dated to the Late Archaic period.<sup>681</sup> Because of the small size and since no building is indicated the image may just as well be a votive gift or a statue/statuette in a cemetery.

The Pyrgi tablets, dated to c. 500 B.C., mention a dedication of a *heramasva* (Etruscan)/m's (Phoenician) by Thefarie Velianas to Uni-Astarte. This is usually interpreted as a (cult) statue,<sup>682</sup> but the Phoenician word need not refer to a (cult) statue, but just as well to a votive gift.<sup>683</sup> Even if the word refers to a statue, it need not be a cult statue but could be a votive statue.

Literary sources only rarely mention cult statues. Pliny (*HN* 7.33) mentions that *simulacra* originally were made of wood or terracotta. Pliny further (*HN* 14.1) speaks of an ancient wooden statue in Populonia. From Livy (5.22.4-7) we have the story of the removal of the cult statue (*signum*) from the temple at Veii in 396 B.C., but we do not know how far back this statue should be dated. Dion. Hal., *Ant. Rom.* 13.3 mentions that the image was a *xoanon*, i.e. it was made of wood.

Regarding Latium we only possess similar meagre evidence. Two marble heads should be considered, both believed to represent the cult statue of Juno Sospita at Lanuvium.<sup>684</sup> One is a marble head of unknown provenance, now in the Museo Gregoriano Profano in the Vatican Museums.<sup>685</sup> The head has been compared to a now lost head found at Lanuvium (without context),<sup>686</sup> believed to be the cult image of Juno Sospita at Lanuvium. The head is dated to the Late Republican period. Both heads must have belonged to acroliths. They both have large holes in the heads, interpreted as being used for fastening the goat's skin. Since we have no exact provenance for the heads, an interpretation as the Juno Sospita from Lanuvium is problematic, and there is no relation to a possible Archaic cult statue.

P.J. Riis has suggested that a bronze head with the provenance of Ariccia in the Ny Carlsberg Glyptotek should be identified as the cult image of Diana Nemorensis.<sup>687</sup> The height of the statue is

<sup>680</sup> For the opposite opinion see e.g. A. Andr n, *Orvieto, SIMA Pocket-book* 27, 1984, 29.

<sup>681</sup> F. Roncalli, *Le lastre dipinte da Cerveteri*, Florence 1965, 22, tav. 6; G. Colonna in *Santuari d'Etruria* 1985, 24.

<sup>682</sup> G. Colonna in *Santuari d'Etruria* 1985, 24; M. Cristofani, 'Ripensando Pyrgi', *Miscellanea ceretana* I, *QArchEtr* 17, 1989, 96.

<sup>683</sup> G. Colonna, "'Tempio e "santuario" nel lessico delle lamine di Pyrgi', *SciAnt* 3-4, 1989-1990, 202 (with further references) - see also p. 213; G. Garbini, *La religione dei fenici in occidente*, Roma 1994, 64. Other scholars, such as E. Richardson, in L. Bonfante (ed.), *Etruscan life and Afterlife*, Warminster 1986, 220, refrains from interpreting the word at all: "a dedication of something".

I would like to thank O. Hvidberg-Hansen for discussing this problem with me.

<sup>684</sup> For Juno Sospita see also below.

<sup>685</sup> G. Hafner, 'Der Kultbild einer G ttin im Vatikan', *Jdl* 81, 1966, 186-205; *LIMC* V, 1990, 822, no. 33.

<sup>686</sup> G. Hafner, 'Der Kultbild einer G ttin im Vatikan', *Jdl* 81, 1966, 186-205; H.G. Martin, *R mische Tempelkultbilder*, Rome 1987, 112ff, tav. 15-16; *LIMC* V, 1990, 821.

<sup>687</sup> Ny Carlsberg Glyptotek, I.N. 1624/old cat. no. H 216b. P.J. Riis, 'The cult image of Diana Nemorensis', *ActaArch* 37, 1966, 67-75. This identification is supported by other scholars such as S. Haynes, *Etruscan bronzes*, London/New York 1984, 267-268, cat. no. 61 ("possibly"); C. Gr nne in *Highlights in the Ny Carlsberg Glyptotek*, Copenhagen 1996, 102-103 (ill.); I. Gradel, 'Old money', in M. Moltesen (ed.), *In the sacred grove of*

estimated to c. 1.25 m. The bronze head is usually interpreted as a naked male kouros, but Riis has argued that the way the head is broken off suggests that it was clothed and he further thinks that it more likely should be interpreted as a female, even if the hair is short. The identification is further based on the likeness of the head (features and hairstyle) to the coin image supposed to be the Archaic Diana Nemorensis, on the coins of P. Accoleius Lariscolus from 43 B.C., where she is seen in profile. On the reverse of the coin is an image of the cult statue of Diana, consisting of three figures, Diana, Hecate, and Trivia, with a common wooden support at the back of the heads. The large hole in the head of the Ariccia head could thus have occurred when the cult statue was broken. This seems highly speculative, and we have no way of knowing whether the Archaic cult image looked like the image on the coins 500 years later. It is also debatable whether the head is male or female, and finally the provenance of the head is Ariccia, not Nemi (even if it is close). Thus there is hardly any substantial evidence for interpreting this head a hypothetical cult statue, and it is more likely that it was a votive statue. Regarding cult statues in Rome we have more sources, but they are contradictory. According to Augustine *De civitate dei* 4.31; Plut. *Numa* 8.8; and Tertullian *Apologeticus* 25.12 no personified images, nor even wooden shrines for the idols existed even in the early 6th century B.C., but only tufa altars. Varro also mentions that *simulacra* were not used by the Romans until 584 B.C. (I. fr. 38) (*Nondum tamen aut simulacris aut templis res divina apud Romanos constabat. Frugi religio et pauperes ritus et nulla Capitoia ... sed temporaria de caespite altaria et vasa adhuc Samia ... nondum enim tunc ingenia Graecorum atque Tuscorum fingendis simulacris inundaverunt*).

On the other hand a few sources mention early images: Cassius Dio 58.7.2; Pliny *HN* 8.197; Arnobius, *adv. Nat.* 2.67 mention a cult statue of *Fortuna Virgo*, dedicated by Servius Tullius.<sup>688</sup> Pliny (*HN* 34.33) mentions that a bronze Hercules statue (*Hercules Triumphalis*) in the Forum Boarium was dedicated by Evander and a Janus statue dedicated by Numa, but he does specify that they were placed within temples. Both these stories seem more like anecdotes. In Rome the first cult statue was - according to Pliny *HN* 35.157 - a terracotta Jupiter statue in the Capitoline temple,<sup>689</sup> made by Vulca of Veii for Tarquinius Priscus, i.e. ca. 580 B.C., but several scholars maintain that Pliny has confused the two Tarquinii since he also mentions that Vulca made the four-horse chariot on the Capitoline temple. Other sources maintain that both the temple and the chariot were commissioned by Tarquinius Superbus (e.g. Plut. *Popl* 13), but this does not mean that it was actually built. Colonna suggests that the Jupiter statue may be as early as Tarquinius Priscus and that it could have been placed in a small *sacellum*<sup>690</sup> and later moved into the great temple.<sup>691</sup> As discussed in the appendix the

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*Diana. Finds from a sanctuary at Nemi*. Exhibition catalogue, Ny Carlsberg Glyptotek, Copenhagen 1997, 200. On the other hand Richardson 1983, 137 considers it a kouros and M. Cristofani (in *Roma dei Tarquini* 1990, 144) considers it a votive statue.

<sup>688</sup> For a discussion of this see F. Coarelli, 'La Porta trionfale e la Via dei Trionfi', *DialArch* 2, 1968, 74-76.

<sup>689</sup> Richardson 1964, 356-359.

<sup>690</sup> The only finds are two fragments of terracotta friezes of the same type as the Minotauros friezes of the third Regia, dated to the early 6th century B.C., but they cannot be related to any building (Gjerstad 1960, fig. 127:8-9).

dating of the preserved structures of the temple has been debated, but a date around 510 B.C. seems reasonable, thus the cult statue was probably not earlier. From the same period Pliny (*HN* 35.157) and Martial (14.178) mentions the *Hercules Fictiles*, also made by Vulca.<sup>692</sup> From the Late Archaic period Pliny (*HN* 34.15) and Livy (2.41.20) mention a bronze statue (*simulacrum*) in the temple of Ceres, Liber, and Libera at Rome, paid for out of the property of Spurius Cassius, who was put to death in 485 B.C. Pliny (*HN* 15.7.32) also mentions a statue of Saturnus, the inside of which was filled with oil, but the date is uncertain (the temple itself is dated to 498 B.C.).

Finally, according to Strabo (4.1.5) the cult statue of Diana on the Aventine in Rome was a *xoanon* similar to that of Artemis in the Massalian Ephesion, but its date is uncertain.<sup>693</sup>

Thus there is no convincing written evidence for early Etruscan cult statues, and they were probably a later phenomenon, belonging to the Late Archaic period - unless of course they were made of wood or another perishable material. In either case cult statues is not a useful criterium for a temple definition. Cult statues on the other hand may be earlier in Rome/Latium. Judging from some of the literary sources perhaps from the early or mid-6th century B.C., but at least from the Late Archaic period.

In general images of gods and goddesses were late in Etruria and Latium. The first recognizable divinities (bronze statuettes) can be dated to around 530 B.C.<sup>694</sup> The earliest were of Mars, Menvra/Minerva and Hercle/Hercules, while Tinia/Jupiter and Uni/Juno are not seen before the end of the 6th century B.C. To this late period belong also a few statuettes of Turms/Mercur and Juno Sospita, perhaps also a few of Turan/Venus.

The only exception is a bronze statuette of a winged female in Cortona, probably to be identified with the "Mistrees of the Beasts". It is dated to the late 7th century B.C., and shows both Etruscan and Spartan features. Richardson suggests that it may have come from the sanctuary of Artemis Orthia at Sparta, possibly through Tarantum, but it may as well be Etruscan.<sup>695</sup> For this see also the discussion on the gods below.

#### *Temenos walls*

Many sanctuaries - if not all - must have had some kind of demarcation,<sup>696</sup> even though these are rarely recognisable in this early period. Such demarcations could be hedges, stones, ditches, *aggeres*, or temenos walls, but so far only evidence of walls are preserved. Since a precinct wall need not be a temenos wall, walls by themselves cannot indicate a sanctuary. Only in combination with other kind of

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<sup>691</sup> G. Colonna in *Santuari d'Etruria* 1985, 23; Colonna 1981.

<sup>692</sup> For a discussion of these see Colonna 1981, 47.

<sup>693</sup> For a discussion of this see C. Ampolo, 'L'Artemide di Marsiglia e la Diana dell'Aventino', *PP* 130-135, no. 25, 1970, 200-210.

<sup>694</sup> Richardson 1976, 128; Richardson 1983.

<sup>695</sup> Richardson 1976, 131, fig. 13; Richardson 1983, 338-340, cat. no. 1.1571, figs. 800-802.

<sup>696</sup> Turner 1979, 15-16; Edlund 1987, 137-138..



sacred evidence may a temenos wall support a sanctuary definition. Temenos walls, furthermore, are not very numerous in Etruria or Latium. In Etruria they are known at Marzabotto, the monumentalized spring, Orvieto, Belvedere, Orvieto, Cannicella (though from a later period), Punta della Vipera, Pyrgi, the main sanctuary, Veii, Portonaccio, and Tarquinia, Pian di Civita, from the later phases. Possible temenos walls are known from Fonte Veneziana near Arezzo, Marzabotto, the acropolis, and Roselle, the building/precinct in square E 10-11. In Latium the only evidence of a temenos wall comes from Satricum, the south-west area, but the date is uncertain.

Domestic buildings also had a precinct wall in a few cases such as Regisvilla.

### *Temple buildings*

The presence of a temple building clearly indicates a sanctuary, but sanctuaries need not have temples. Unfortunately temples are not always easily recognisable. Several characteristics have been proposed: ground-plans, podiums, columns, architectural terracottas, dimensions, and orientation.

The ground-plan has long been discussed because of Vitruvius' description of the so-called Tuscan style (*de tuscanicis dispositionibus*) in Book 4.7.1-2:

*Locus, in quo aedis constituetur, cum habuerit in longitudine sex partes, una dempta reliquum quod erit, latitudini detur. Longitudo autem dividatur bipertito, et quae pars erit interior, cellarum spatiis designetur, quae erit proxima fronti, columnarum dispositioni relinquatur. Item latitudo dividatur in partes x. Ex his ternae partes dextra ac sinistra cellis minoribus, sive ibi alae futurae sunt, dentur; reliquae quattuor mediae aedi attribuantur. Spatium, quod erit ante cellas in pronao, ita columnis designetur, ut angulares contra antas, parietum extremorum regione, conlocentur; duae mediae e regione parietum, qui inter antas et mediam aedem fuerint, ita distribuuntur; et inter antas et columnas priores per medium isdem regionibus alterae disponantur. Eaeque sint ima crassitudine altitudinis parte vii; altitudo tertia parte latitudinis templi; summaque columna quarta parte crassitudinis imae contrahatur. Spirae earum altae dimidia parte crassitudinis fiant. Habeant spirae earum plinthum ad circumum, altam suae crassitudinis dimidia parte, torum insuper cum apophysii crassum quantum plinthus. Capituli altitudo dimidia crassitudinis. Abaci latitudo quanta ima crassitudo columnae. Capitulique crassitudo dividatur in partes tres, e quibus una plintho, quae est abacus, detur, altera echino, tertia hypotrachelio cum apophysii. Supra columnas trabes compactiles inponantur ut altitudinis modulis is, qui a magnitudine operis postulabuntur. Eaeque trabes compactiles eam habeant crassitudinem, quanta summae columnae erit hypotrachelium, et ita sint compactae subscudibus et securiclis, ut compactura duorum digitorum habeant laxationem. Cum enim inter se tangunt et non spiramentum et perflatum venti recipiunt, concalescunt et celeriter putrescunt. Supra trabes et supra parietes traiectiones mutulorum parte iiii altitudinis columnae proiciantur; item in eorum frontibus antepagmenta figantur. Supraque id tympanum fastigii structura seu de materia conlocetur. Supraque eum fastigium, columen, cantherii, templa ita sunt conlocanda, ut stillicidium tecti absoluti tertiaro respondeat.*

("Let the site on which the temple is to be built be six parts in length; five parts are to be assigned to the breadth. Now the length is to be divided in two. The interior half is to be left for the portico with its columns. Further let the width be divided into 10 parts. Of these let three parts each on the right and left be given to lesser sanctuaries, or alternately to the wings; the remaining four parts are to be given to the central shrine. Let the space which is before the sanctuaries in the forecourt be planned for the columns, in such a way that the corner columns are put opposite the pilasters, in line with the ends of the walls. The two middle columns are to be in line with the walls which are between the wings and the middle shrine. Between the pilasters and the columns in front, additional columns are to be put half way in line with them. At the bottom these are to have a diameter  $1/7$  of the height. (The height is to be one third of the width of the temple.) The top of the column is to be diminished  $1/4$  of the diameter at the bottom. The bases are to be made half a diameter high. Let the bases have their plinths circular and half the height of the base, with a torus and apophysis<sup>697</sup> as deep as the plinth. The capital is to be half a diameter. The width of the abacus is as great as the diameter of the column at the base. The height of the capital is to be divided into three parts, of which one is to be given to the plinth or abacus, one to the echinus or ovolo, the third to the hypotrachelium<sup>698</sup> with the apophysis. Above the columns, beams are to be placed bolted together, of such proportionate depth as shall be demanded by the magnitude of the work. And these coupled beams are to have a thickness equal to the hypotrachelium at the top of the column, and they are to be so coupled with dowels and mortices that the coupling allows an interval of two inches between the joists. For when they touch one another and do not admit a breathing space and passage of air, they are heated and quickly decay. Above the beams and walls the mutules are to project  $1/4$  of the height of the column. On the front of these, casings (antepagmenta) are to be fixed and above them the tympanum of the gable either of stone or wood. Above this the ridge piece, rafters, and purlins, are to be so placed that the pitch of the roof is one in three.")

As I have argued in chapter 1, I do not think that Vitruvius described according to which principles an Etruscan temple was constructed - in fact the term "Tuscan style" more probably meant a description of a specific type of temples, not Etruscan temples as such. I doubt whether we can use Vitruvius at all in a discussion of Etruscan temples, even if some Etruscan temples have a cella divided into three rooms. Since a number of temples had a ground-plan that differed from that described by Vitruvius, such as only one cella, the ground-plan alone cannot be used as a criterion. Moreover, domestic houses like those at Acquarossa may have a three-room plan, as have several tombs.

An example of the misuse of Vitruvius mentioned in chapter 1 is the fact that the reconstruction of several three-cella temples seems to be based too heavily on Vitruvius, for instance, S. Omobono in Rome. Temples are often reconstructed with three cellae, even if no trace of such an arrangement exists.

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<sup>697</sup> The curving away of the shaft against the base.

<sup>698</sup> Necking.

In a few cases, however, the ground-plan of a building clearly signified a temple, such as in the case of the newly discovered building at Marzabotto, regio I/5 (Fig. B83). In this case the plan with a divided cella, a pronaos and probably columns around indicate a temple, since the plan is similar to Pyrgi temple B (Fig. B120) or Satricum temple II (Figs. B338-B339).

Columns (also mentioned by Vitruvius) alone do not identify a building as a temple, since other types of buildings (and tombs) had columns, such as the "*palazzi*" at Murlo and Acquarossa. Temples furthermore need not have columns, especially the early ones, such as the east sanctuary at Gabii. According to Vitruvius (4.7) columns in temples were of the Tuscan order, while domestic buildings employed Doric and Ionic columns. That this was not the case in Archaic Etruria is clear from the many Tuscan columns in domestic buildings and tombs (see chapter 4).

The podium on the other hand, not mentioned by Vitruvius, is typical of Etruscan temples, since the presence of a podium has so far not been seen in any other type of building, and a podium may thus be an indication of a temple. The podium continued to be used in the later Roman temples. However, temples without a podium existed in the Archaic period (such as the east sanctuary at Gabii).<sup>699</sup> Unfortunately it is not always clear from publications whether a temple had a podium or not. Securely identified podiums are found in Etruria at Civita Castellana, Celle, Marzabotto, the acropolis, Orvieto, Belvedere, Pyrgi, temple A and B, Roselle, the building in square E 10-11, Tarquinia, Ara della Regina, Veii, Portonaccio, and Vulci, Fontanile di Legnisina. In Latium they are found at Ardea, the acropolis, Rome, the Capitol, the Palatine (Building N), the temple of Castor and Pollux, S. Omobono, and Satricum, the temples on the acropolis and the south-west area.

The building technique may also sometimes indicate a temple, especially thick foundation walls (2 or 3 m), since such thick walls are only known from monumental temples (e.g. Pyrgi).

Vitruvius mentions (4.8.6) (speaking of temples in general) that temples are built differently according to what god that they served: *Haec autem genera propter usum sacrificiorum convertuntur. Non enim omnibus diis isdem rationibus aedes sunt faciundae, quod alius alia varietate sacrorum religionum habet effectus.* ("The styles of building vary to suit the needs of sacrifice. For temples are not to be built to all the gods in the same styles. For the several gods by the variety of their worship give rise to different religious effects"). This statement, however, probably refers to contemporary temples.

It is often claimed that the basic orientation of the Etruscan temple was N-S, i.e. the cella in the north and the "pronaos" and entrance in the south.<sup>700</sup> When there was a derivation from the "normal" orientation, several scholars have speculated whether this had anything to do with sacred rituals for specific gods, but this seems highly speculative. Prayon has suggested that each orientation should be

<sup>699</sup> For a number of buildings we have no evidence whether or not they were placed on a podium, if it is not mentioned in the excavation report, nor can be seen from the published drawings, photographs or visible remains.

<sup>700</sup> For a discussion of the orientation of the Etruscan temples and its importance see R. Enking, 'Zur Orientierung der etruskischen Tempel', *StEtr* 25, 1957, 541-544; Pfiffig 1975, 58; F. Prayon, '*Deorum sedes*. Sull'orientamento dei templi etrusco-italici', *ArchCl* 43, 1991, 1285-1295; Prayon 1993a; A. Aveni & G. Romano, 'Orientazioni di templi e rituali etruschi', *RdA* 18, 1994, 57-67.

connected to specific gods/goddesses (*Fig. 143*), and that these basically can be divided into *inferi* and *summa felicitas*.<sup>701</sup> Besides being speculative (and considering our limited sources for which god or goddess was worshipped where), the system is not consistent. As an example can be mentioned that Menvra both appears both as *inferi* and *summa felicitas*. Furthermore, Prayon tries to solve the problem of different orientations for different phases of the same sanctuary by suggesting that the overall system of orientation first was developed in the late 6th century B.C., and he thinks that before that they were dependent on the orientation of the street system. Considering that there is very little evidence for dating the early phase of the Celle sanctuary to the mid-6th century B.C., and it is more likely that it should be dated to the late 6th century B.C., this explanation cannot be used to explain why the orientation of Celle was changed in the second phase (and there is no indication of the cult being changed). Furthermore, our knowledge of the street system (if there was indeed an overall plan for this) is very limited. In fact, the only case where we have secure evidence for an overall street plan is Marzabotto in the late 6th/early 5th centuries B.C., and here it is clear that the temples follow the street system, even with the small derivation in the second period.

As can be seen from *Plan 6* and *Diagrams 9-10* the archaeological material does not support a theory of a fixed temple orientation in Etruria, nor in Latium. Temples were oriented towards any corner between east, south and west and one even towards the northwest (Satricum, the temple in the southwest area) and one towards the NNE (the temple of Castor and Pollux in Rome). The orientation of temples seems instead to relate to the setting of the temple in nature (location of hills, rivers, views, the location of the city/cemetery etc.). That no temple is oriented due north is only natural because of the light. In the few cases where the setting of the temple in the sanctuary is known, it seems that the temples were placed at the back of a fairly large open space with temenos walls projecting from the sides of the temple (Orvieto, Belvedere), or at one end of the sanctuary with a temenos wall behind (Veii, Portonaccio and Pyrgi).

The Latial and Etruscan temples were adorned with architectural terracottas, but since other types of buildings could also have this architectural decoration, terracottas cannot be used as a criterion in itself. This is in contrast to Greece, where architectural terracottas only decorated sacred buildings, with the possible exception of building F on the Agora (c. 560-550 B.C.).<sup>702</sup>

#### *Cult continuity*

A difficult problem regarding building identification arises when a building is found beneath or very close to a later temple. It is normally assumed that these buildings were predecessors and thus also temples, but, unless other sacred characteristics are present, this need not be the case. If cult continuity should be used as an argument for a temple identification, the site has to be used continuously. As in

<sup>701</sup> F. Prayon, 'Deorum sedes. Sull'orientamento dei templi etrusco-italici', *ArchCl* 43, 1991, 1285-1295.

<sup>702</sup> Winter 1993, 223-224.

the case of for instance Poggio Buco with finds dating from the 6th century B.C. and again from the Hellenistic period, cult continuity cannot be used as an argument.

In Etruria all Archaic temples were erected on sites not previously considered sacred (at least nothing indicates this). Even when earlier building remains are present, these could have had another function. For instance a stroke of lightning or other omens could have been the reason for the dedication of a temple, regardless of the function of a building already there.

In at least one case we have evidence that a temple was constructed on top of domestic buildings. At the acropolis of Volterra two Hellenistic temples, temples A and B, were built. Next to and beneath temple A, constructed between 175 and 150 B.C., were found poorly preserved Archaic structures, Archaic architectural terracottas, and a domestic building dating from the early Hellenistic period. While it is not possible to interpret the function of the Archaic remains, the early Hellenistic house does not seem from the beginning to have had a sacred function, even if part of it later was incorporated into the sanctuary.

At Cerveteri, Vigna Parrocchiale, building remains beneath the temple are interpreted as a domestic building, though what this identification is based on is not clear.

An example of the problem of cult continuity can be seen in Lanuvium, where architectural terracottas from three phases have been excavated, from the first half of the 5th, the 4th-3rd and the 1st centuries B.C. The building associated with the terracottas also had three phases (*Fig. B279*). Most scholars assume that the three phases of architectural terracottas corresponded to the three building phases.<sup>703</sup> All three buildings have been interpreted as temples, primarily on the basis of votive finds. These, however, seem to be late, except perhaps for a votive altar with no clear provenance found in the last century. The main criterion for identifying the first building as a temple is thus cult continuity.

Cult continuity can in my opinion only be used as an argument if walls are present. If only architectural terracottas are found in connection with a later temple, this is not enough to argue for an early temple phase. These I consider buildings of unknown function. As an example can be mentioned Gabii, the so-called Juno sanctuary, where the Archaic phase is documented only through a single antefix.

As can be seen from *Diagrams 9-10* cult continuity is present in most sanctuaries.

### *Literary sources*

Literary sources may refer either to temples in general or to specific temples.

A specific temple may be identified because of literary sources. This, however, proves to be very difficult, since many towns are only tentatively identified. Furthermore, even if we are sure of the identification of the town, the ancient sources seldom state the exact location of a particular temple. To know that a Minerva temple existed in a specific town does not necessarily mean that the first building excavated is the temple mentioned in the literary sources. An example of this may be Gabii, where the

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<sup>703</sup> For a different interpretation see the appendix.

temple excavated by Spanish archaeologists was identified as the Juno temple, while others have suggested that the temple in the eastern area was the Juno temple. In a few cases, however, literary sources clearly identify a sanctuary, such as the sanctuary at Pyrgi.

### *Iconographical evidence*

Iconographical depictions of deities are often maintained as one of the best ways to define a sanctuary.<sup>704</sup> Unfortunately this criterium does not work well in Etruria and Latium. First of all such depictions are few and often related to (later) tomb paintings and mirrors, secondly they cannot easily be interpreted. An Archaic example is the so-called seated figures frieze from the Upper Building at Murlo. Some scholars, such as Gantz,<sup>705</sup> see these figures as deities, while others, such as Cristofani,<sup>706</sup> see them as magistrates. Also mythological beasts do not seem to indicate anything sacred, since they are used as mere decoration (rows of sphinxes and other winged beasts on bucchero, ivory and jewellery or as architectural terracottas on domestic buildings, such as e.g. the house in Acquarossa zone G with griffin protomes). Only in a few cases can a deity or hero can be identified.

One deity is especially problematic, namely Juno Sospita.<sup>707</sup> She is known from literary sources (Cic. *de Nat. Deor.* 1.29.83) and she is described as having a goatskin over her head, shoes with upcurled toes and carrying a "Boeotian" shield.<sup>708</sup> A number of antefixes showing a helmeted female head and two curved goat's horns are identified as Juno Sospita. Unlike all other representation of her, the antefixes have a helmet, and none of the other characteristics can of course be seen since the antefixes only show the head. It is thus not certain that the antefixes should be identified as Juno Sospita. What is also strange is that they are not found at Lanuvium, known to have been a Juno Sospita sanctuary (if this is indeed the Juno Sospita sanctuary). These antefixes are only found in Latium Vetus, with the exception Civita Castellana (Vignale and Sassi Caduti). They can all be dated to the late 6th-early 5th century B.C.: Antemnae, Fidenae, Lavinium, Norba, Rome (Forum Romanum and Palatine), Segni, and Satricum. A number of Juno Sospita antefixes without provenance are known, probably all from Latium Vetus.<sup>709</sup> It is thus uncertain whether a so-called Juno Sospita antefix identifies a temple as a temple of Juno Sospita.

For deities and mythological creatures on architectural terracottas see *Diagrams 16-23*. From these it is clear that representations of gods/goddesses and deities were rare and most belonged to the later part of the 6th century B.C., a period where they should probably be regarded as mere decoration and

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<sup>704</sup> E.g. Renfrew 1985.

<sup>705</sup> Gantz 1974.

<sup>706</sup> M. Cristofani, 'Considerazione su Poggio Civitate (Murlo, Siena)', *Prospettiva* 1, 1975, 9-19.

<sup>707</sup> Andr n 1940, clxxvii-clxxviii; G. Hafner, 'Der Kultbild einer G ttin im Vatikan', *Jdl* 81, 1966, 186-205; *LIMC* V, 1990. 819-822.

<sup>708</sup> See further Gordon 1938.

<sup>709</sup> See Andr n 1940, 502-503, I:17, I:18, I:19, I:20.

as having little relevance for the identification/function of the building they decorated. Iconographical evidence is therefore of little value for the Etruscan Archaic period.<sup>710</sup>

Another problem related to this is the significance of a specific type of architectural terracottas. The problem arises when a certain type - known to have decorated a temple - is found in another context. Is it then possible to conclude that the second building was also a temple? Colonna argues for this in the case of the architectural terracottas from Montetosto and claims that the early phase should be considered a sanctuary because the female antefixes are of a similar type to the ones found at Cerveteri and Pyrgi.<sup>711</sup>

A well-known example is the Rome-Veii-Velletri friezes.<sup>712</sup> Another example is the friezes of a similar type found in Acquarossa (Zone F), the Tuscania cemetery,<sup>713</sup> and the acropolis at Castel d'Asso (in neither Tuscania nor Castel d'Asso traces of walls were found)<sup>714</sup> - in this case it is hardly possible to conclude that the friezes from Castel d'Asso or the ones from Tuscania belonged to a building of the same type as that in Acquarossa Zone F.

The problem can also be illustrated with the Regia in Rome. In its fourth phase (540-530 B.C.) the Regia was decorated with architectural terracottas which seem to be imported from Cerveteri. But so far we have found no similar temple of this date in Cerveteri itself. Can we conclude that the same type of architectural terracottas decorated the same type of building? Not necessarily, I believe. Antefixes from the same mould as those used for the Regia have also been found at Punta della Vipera and Ficana.<sup>715</sup> Thus it is clear that architectural terracottas, even from the same mould, may have been used for different types of buildings. Torelli has argued that friezes with figure decoration on the other hand can be used to identify the nature of the building.<sup>716</sup> I do not intend to discuss this at length, only point out that his theories in several cases seem unsupported by the archaeological evidence.

When we view the evidence presented in the appendix, 23 buildings in Etruria and 13 in Latium can securely be identified as temples, while 11 in Etruria and 6 in Latium may be considered possible temples (not counting different phases) (*Fig. 144, Plan 6, Diagrams 7-10*). To these should be added the "*palazzi*" with sacred functions (see below). It should be noted that in a number of cases it is very difficult to determine whether a building should be regarded as a possible temple or a building with an unknown function, and it is not possible to define any rule of thumb. As an example can be mentioned that "temples" consisting of walls, Archaic architectural terracottas and late votives are usually

<sup>710</sup> As argued in Damgaard Andersen 1992-1993.

<sup>711</sup> G. Colonna in *Case e palazzi d'Etruria* 1985, 194.

<sup>712</sup> Published in numerous articles and monographs. See for example Gantz 1974, 1-9, though I do not agree with his conclusions and chronology.

<sup>713</sup> See the appendix.

<sup>714</sup> See the appendix.

<sup>715</sup> Torelli 1992, 250 (with further references).

<sup>716</sup> Torelli 1992, 250. Arguments of a similar kind is presented by F.-H. Pairault Massa, *Iconologia e politica nell'Italia antica. Roma, Lazio, Etruria dall VII al I secolo a.C.*, Biblioteca di Archeologia 18, Milan 1992, esp. 45-53.

considered possible temples, while "temples" consisting of Archaic architectural terracottas (but no walls) and late votives are considered buildings of unknown function (if only few architectural terracottas are found, not related to any walls, it is quite possible that they originated from a different (?) building in the vicinity). However, if a substantial amount of Archaic architectural terracottas are found (such as e.g. Segni) this is considered a possible temple. But the evidence must be viewed in each case.

The characteristics of a temple have - strangely enough - not been widely discussed. N. Winter identified temples as buildings "which show clear evidence of a religious nature, such as associated votives or altars, or which, due to their position on the acropolis of the city or within a temenos wall, are set aside from the other buildings of the city. In addition, sites of buildings which agree with placement of temples mentioned by literary sources, and buildings with inscriptional identification".<sup>717</sup> This short definition corresponds well to the characteristics suggested above.

G. Colonna, on the other hand, has emphasized the following six characteristics of a temple:<sup>718</sup>

1. a square or quasi-square ground-plan;
2. a podium with steps to underline the importance of the front;
3. an open front with a pronaos with inner columns and/or columns in front;
4. instead of lateral cellae two *alae*, open towards the pronaos;
5. basically oriented towards the south with a latitude between 90° and 270°;
6. a cult statue.

The problem with this definition is that it is not limited to a specific period but proposes to identify the Etruscan temple as such. As we have seen above, only few of these criteria can be used for the Archaic period: 1. many types of buildings are square, not only temples (such as e.g. the Upper Building at Murlo or Building A in zone B at Acquarossa) and several temples are elongated, such as the temple at the east sanctuary at Gabii. The square plan of the temple only holds true for the cella - if the side walls and the columns are taken as part of the ground-plan most Archaic temples are also elongated; 2. temples without podiums exist, such as e.g. Gabii - on the other hand buildings with podiums must be identified as temples. 3. while all temples are open at the front not all have a pronaos and columns; 4. lateral cellae and *alae* are not common before the Late Archaic period (see below); 5. an orientation towards the south does not seem to hold true for all temples; in fact temples seem to be oriented according the physical conditions of the site/the layout of the site (see also above); 6. cult statues are - as mentioned above - rare, but of course the presence of a cult statue indicates a temple.

### **Affiliated sacred buildings**

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<sup>717</sup> Winter 1981, 141.

<sup>718</sup> G. Colonna in *Santuari d'Etruria* 1985, 60.



Before discussing the location of sanctuaries, buildings in sanctuaries other than temples should be discussed. Many such buildings must have existed, for instance, storerooms for the cult objects or houses for priests. In a few sanctuaries smaller buildings existed besides the temple (*Fig. 145*).

To identify the use of such buildings today is, of course, almost impossible, the only exception perhaps being the cellae southeast of temple B in Pyrgi (*Fig. B120*). These are connected by some scholars to the literary evidence of temple prostitution.<sup>719</sup> They were decorated with a unique series of Late Archaic antefixes, and in front of these rooms were small altars.

In two sanctuaries porticos/stoai are known, namely at Satricum, the so-called stoa A' and B' (*Figs. B344-B345*). The function of these is not clear, and in one case (stoa A') it is even possible that the stoa was part of a courtyard building. At Veii, Portonaccio, two small porticos (*Fig. B225, G and H*) were built northwest of the altar in the second half of the 5th century B.C. (during the reorganization of the site). The exact use of these buildings is not known. Colonna has suggested that these buildings may have had predecessors. In this sanctuary another small building was located (*Fig. B225, I*), probably dated to the third quarter of the 6th century B.C. It was probably connected to the cult and could have been used to keep sacred items in etc. In the building votive material from the 7th and 6th centuries B.C. was found.

Another possible affiliated sacred building is Building B at Veii, Località Campetti (though the function of both Building/precinct A and B is uncertain) (*Fig. B216*). In Tarquinia, Pian di Civita, *Area sacra* may be considered an affiliated sacred enclosure, which seems to have been partially roofed (the southern room) from the mid-6th century B.C. (*Figs. B188-B187*) and other rooms and a portico added later (*Figs. B189-B190*). Other smaller buildings are located in the area, but they are not entirely excavated yet. In Latium the building near the 13 altars must have been used for storage/production/habitation for priests (a kitchen is found in the building and a kiln located outside) (*Figs. B289-291*).

Some scholars have suggested that some of the smaller buildings in sanctuaries should be interpreted as *thesauoi* - like those known from the sanctuaries in Delphi and Olympia. Steingraber suggests that the above-mentioned rectangular building at Portonaccio, could have been used as a *thesauos* because of the votives,<sup>720</sup> a theory supported by Torelli.<sup>721</sup> This theory presents a number of problems: there is no literary mention of *thesauoi* in Etruria - though two Etruscan *thesauoi* in Delphi are mentioned;<sup>722</sup> most of these small buildings were excavated in the 19th century or are

<sup>719</sup> Colonna 1984-85, 64-65; G. Colonna in *Santuari d'Etruria* 1985, 128.

<sup>720</sup> Steingraber 1981, 488.

<sup>721</sup> Torelli 1984, fig. 42.

<sup>722</sup> One *thesauos* was built by Spina (Strabo 5.214; Dion. Hal. *Ant. Rom.* 1.18; Pliny *HN* 2.120; Polemo (in Athenaeus 13.606)) and the other by Cerveteri (Strabo 5.220). The excavations have not yet made it possible to identify these two *thesauoi* with actual building foundations in Delphi, though it is now assumed that foundation X is the treasury of Spina (this was earlier assumed to be the treasury of Cerveteri, while foundation XVII was considered to be the treasury of Spina). For a discussion of this (with further references), see Pomtow, 'Delphi', *RE*, suppl. 4 (1972), 1364-1367; M. Gras, *Trafics tyrrhéniens archaïques*, *BEFAR* 258, Rome 1985, 435, 686-687; Colonna 1993b, 56-58.

known only through their architectural terracottas such as the small pediment from Cerveteri in the Ny Carlsberg Glyptotek and Berlin.<sup>723</sup> I do not think that the theory about *thesauroi* in Etruria is a likely one, since they are not referred to in the ancient literature. Furthermore *thesauroi* in Greece are known only from the large Pan-hellenic sanctuaries where games took place - a phenomenon not attested in Etruria. The possibility that these small Etruscan buildings represented *thesauroi* cannot be excluded, though.

Another possibility is a "*naiskos*" or a *heroon*,<sup>724</sup> but again we have very little evidence to support this. For "*naiskoi*" see below the discussion of funerary buildings.

### The location of sanctuaries

From the archaeological remains it is clear that sanctuaries could be placed at many different locations (*Diagrams 11-12* - note that only sanctuaries actually found are included).<sup>725</sup> In many cases it was thought that the gods themselves proclaimed the site of worship, through signs such as lightning. In a few cases we know that the gods appeared to point to the location of the temple, such as in the case of the temple of Castor and Pollux in Forum Romanum in Rome (at the site of the Juturna spring where the Dioscuri were seen to water their horses as a sign of the Roman victory).

While we have many stories of Greek gods and heroes founding sanctuaries in Southern Italy and Sicily, the stories for Central Italy, especially Latium, relate primarily to Greeks from Troja founding cities. No archaeological evidence supports this. The only exception is the *heroon* of Aeneas at Lavinium, dated from the 7th century B.C.<sup>726</sup> Besides this (and perhaps the worship/veneration of Romulus in Rome) we have no evidence of a *heroon* cult in Etruria or Latium.

Regarding Roman temples we have the evidence from Vitruvius (1.7.1-2) according to whom temples were located according to which god/goddess or gods they served:<sup>727</sup>

*Aedibus vero sacris, quorum deorum maxime in tutela civitas videtur esse, et Iovi et Iunoni et Minervae, in excelsissimo loco, unde moenium maxima pars conspiciatur, areae distribuuntur. Mercurio autem in foro aut etiam, ut Isidi et Serapi, in emporio; Apollini Patrique Libero secundum theatrum; Herculi, in quibus civitatibus non sunt gymnasia neque amphitheatra, ad circum; Marti extra urbem sed ad campum; itemque Veneri ad portum.*

*Id autem etiam Etruscis haruspibus disciplinarum scripturis ita est dedicatum, extra murum Veneris, Volcani, Martis fana ideo conlocari, uti non insuescat in urbe adolescentibus seu matribus familiarum veneria libido, Volcanique vi e moenibus religionibus et sacrificiis evocata ab timore incendiorum aedificia videantur liberari. Martis vero divinitas cum sit extra moenia dedicata, non erit inter cives armigera dissensio, sed ab hostibus ea defensa belli periculo conservabit. Item Cereri extra*

<sup>723</sup> Andr n 1940, 37-42, pls. 11:40-41, fig. 20; *Welt der Etrusker* 1988, 170-172, B 6.1.19 (ill.).

<sup>724</sup> As e.g. suggested by Jannot 1984, 216.

<sup>725</sup> For a discussion of the location of sacred places and sanctuaries see Edlund 1987, 126-134.

<sup>726</sup> *Enea nel Lazio* 1981, 172-175.

<sup>727</sup> See also Edlund-Berry 1987, 36-37.

*urbem loco, quo nomine semper homines nisi per sacrificium necesse habeant adire; cum religione, caste sanctisque moribus is locus debet tueri. Ceterisque diis ad sacrificiorum rationes aptae templis areae sunt distribuendae.*

"But for sacred building of the gods under whose protection the city most seems to be, both for Jupiter and Juno and Minerva, the sites are to be distributed on the highest ground from which the most of the ramparts is to be seen. To Mercury, however, in the Forum, or also, as to Isis and Serapis, in the business quarter; to Apollo and Father Bacchus against the theatre; to Hercules, in cities which have no gymnasia nor amphitheatres, at the circus; to Mars outside the walls but in the parade ground; and also to Venus near the harbour.

Now with the Etruscan haruspices in the writing of their disciplines, the dedication is as follows: that the shrines of Venus, Volcanus, Mars are therefore to be situated outside the wall, so that venereal pleasure may not be customary to young men and matrons in the city, and, by summoning the power of Volcanus outside the ramparts with ritual and sacrifices, the buildings may seem to be freed from fear of fires. But since the divinity of Mars is dedicated outside the ramparts, there will not be armed quarrels among citizens, yet he will keep the ramparts defended from the danger of war. So also to Ceres in a place outside the city, under which name (i.e. Ceres extra urbem) men (unless by sacrifice) must always approach her; since that place must be kept religiously, purely and with strict manners. And to the other gods sites fit for temples with a view to the methods of sacrifice are to be arranged."

This statement, however, refers to (contemporary) Roman gods and goddesses, but at least in part it was also valid for the Roman/Latinal temples of the Archaic period, especially regarding the temple of Jupiter, Juno and Minerva on the highest point in the city can be seen on the Capitoline hill in Rome. Regarding the Archaic Etruscan temples (*fanum*) the archaeological evidence cannot confirm any of these locations.

Scholars have proposed many different types of sanctuaries bases on the location of the sanctuaries. Colonna suggests the following types: 1. urban sanctuaries, 2. sub-urban sanctuaries, 3. extra-urban sanctuaries, 4. rural sanctuaries, and 5. sanctuaries in cemeteries.<sup>728</sup> Edlund on the other hand prefers: 1. urban sanctuaries, 2. extra-mural/extra-urban sanctuaries,<sup>729</sup> 3. "political" sanctuaries, 4. rural sanctuaries, and 5. sanctuaries located in nature.<sup>730</sup> Edlund considers the extra-mural sanctuary a subdivision of extra-urban sanctuary, i.e. extra-mural sanctuaries are located immediately outside the city walls. Glinister suggests a simplified version:<sup>731</sup> 1. sanctuaries in cities; 2. sanctuaries outside cities; and 3. sanctuaries on boundaries.

<sup>728</sup> *Santuari d'Etruria* 1985. See also Torelli 1984, 164-174.

<sup>729</sup> In this group she includes the sanctuaries in cemeteries.

<sup>730</sup> Edlund 1987, 41-42.

<sup>731</sup> Glinister 1997, 75-78.

All definitions present a number of problems: Edlund's types are based on a strict division on the relationship with the city, i.e. who was in charge of the sanctuary. Thus she defines a specific type called "sanctuaries located in nature", since presumably these were not under the jurisdiction of any city. On the other hand Colonna seems to base his division on the physical location of the sanctuary in relation to the city, though it is not quite clear how sanctuaries in cemeteries and rural sanctuaries fit the system. Finally Glinister seems to make a simplified version (of Colonna's ?) with the difference that sanctuaries outside cities include both extra-urban, rural, natural sanctuaries, and sanctuaries in cemeteries (though these are not mentioned specifically). Furthermore her type "sanctuaries on boundaries" include both city boundaries and territory boundaries.

A division as Edlund's based only on relationship with the city is problematical, since we know very little about the organization of sanctuaries. Furthermore this division neglects the function of the sanctuary, and thus both sanctuaries in cemeteries and emporium sanctuaries are considered a subdivision of extra-mural/extra-urban sanctuaries. Colonna's division is also problematical, especially in relation to sanctuaries in cemeteries which should be sub-urban or extra-urban if his physical location system was followed. The same problem holds true for rural sanctuaries, which also should be considered extra-urban - unless one follows Edlund's system and stresses the fact that such rural sanctuaries were independent. Natural sanctuaries are not considered a specific type by Colonna. By making a simplified version Glinister avoids many of the problems with Colonna's division.

The main problem, however, with these three definitions is that they do not include function.<sup>732</sup> Furthermore all operate with fairly long periods of time: Edlund from 700-400 B.C.; Glinister from 750 to 450 B.C., and Colonna from the Orientalizing throughout the Hellenistic period. Edlund and Glinister furthermore discuss the development in all of Central Italy (Edlund discusses Etruria and Magna Grecia and Glinister Central Italy from Bologna to Naples).

Making divisions like these is naturally always a problem, but when doing so I find that three main points should be considered:

1. the function of the sanctuary should be incorporated, i.e. the functions besides the "basic" sacred function. Placing sanctuaries in cemeteries and emporium sanctuaries in the same type is not convenient.
2. the time factor must be considered, i.e. one type of sanctuary may develop into another. A natural spring sanctuary (independent) may be monumentalized and a city built nearby (because of the spring or regardless of the spring?). As an example may be mentioned the spring sanctuary just outside Marzabotto. The former independent spring sanctuary may now be under the supervision of the city and thus a (sub)-urban sanctuary. Therefore a sanctuary may belong to one type in an early period and to another in a later period, thus independence/relation to the city is not a useful means of dividing types of sanctuaries.

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<sup>732</sup> Glinister, however, discusses function later (Glinister 1997, 78-79).

3. It should be made clear that the nature of sanctuaries may vary within a fairly short distance. As an example we should always be cautious to compare evidence from Rome to evidence from Etruria.

The following is an attempt to group Etruscan Archaic sanctuaries by combining the relation to the city, the physical location, and the function, but stressing the function instead of location/relationship with the city. In doing so the time factor should also be considered.

1. "Basic" sanctuaries, dedicated to one or several gods, the worship of which is its sole function.

These can be located:

- A: within the city or settlement (urban)
- B: just outside the boundary of the city ("sub-urban")
- C: in the country (rural)
- D: natural sanctuaries, which were located anywhere

2. Sanctuaries with further aspects

- A: emporium and port sanctuaries
- B: sanctuaries in cemeteries
- C: "political" sanctuaries

One should of course always bear in mind that the nature of many sanctuaries cannot be determined, since we do not know the location of the settlement/town/city to which - if any - the sanctuary was connected. For instance if a temple is found on a plateau, can we be absolutely certain that it was urban, if we have no other evidence of a city? Likewise the function of the sanctuary is not always clear.

*1: "Basic" sanctuaries*

*1A: Urban sanctuaries*

These are defined as sanctuaries located within a city (*Fig. 146 and Plan 8*).<sup>733</sup> Urban sanctuaries/temples could be placed either on the acropolis, in the centre of a city; near a gate or rather along the perimeter of the city wall/boundary of the city; or - in a few cases - placed marginally.<sup>734</sup>

Some examples of sanctuaries on acropoleis existed:

- Civita Castellana, Vignale: the so-called Larger Temple and the so-called Smaller Temple, both dated to the early 5th century B.C.
- Marzabotto, the temples (A and C) and altars on the acropolis, of which the structure Y (now lost) was placed on the summit (*Fig. B73*).<sup>735</sup> All are dated to 500-475 B.C. Further to the north another contemporary temple was located
- Ardea, the temple on the acropolis, dated to 540/30 B.C. or the late Archaic period (*Figs. B254-B255*)

<sup>733</sup> For convenience sake I use the word "city", but it may as well have been a (smaller) town or settlement.

<sup>734</sup> G. Colonna in *Santuari d'Etruria* 1985, 70.

<sup>735</sup> G. Colonna in *Santuari d'Etruria* 1985, 68; 88-92 (cat. no. 4.10).

- Rome, the Capitol, dedicated to Jupiter, Juno, and Minerva, dated to the late 6th century B.C. (*Fig. B300*)
- Satricum, the temples on the acropolis (the *oikos*/temple 0, Temple I and II), dated from the early 6th century B.C. onwards (*Figs. B336, and B338-B339*)
- Segni, though the Archaic temple is only attested through architectural terracottas, dated to the Late Archaic period

Sanctuaries placed in the centre of the city: only few are known from the Archaic period, and again the problem is that only rarely do we know the boundaries and thus the centre of the city:

- Tarquinia, Pian di Civita, located at the centre of the plateau of Tarquinia (*Figs. B175-B191*). The sanctuary shows cult continuity from the Late Bronze Age to the Hellenistic period. The building has also been identified as a meeting hall or a *regia* (see also below)
- Cerveteri, Vigna Parrocchiale, dated to the early 5th century B.C.
- Cerveteri, San Antonio, two Late Archaic temples, dedicated to Herce
- Marzabotto, the area of the city, regio I/5, dated to 500-475 B.C. (*Fig. B83*)
- Veii, Campetti (*Figs. B216-217*). The presence of votive terracottas and architectural terracottas from the late 6th century B.C. suggests one or more sanctuaries, though temple buildings are uncertain
- Cerveteri, the north-eastern area of the plateau, dated to the Late Archaic period (the temple identification is uncertain)
- Orvieto, San Giovanni, dated to the early 5th century B.C. (the temple identification is uncertain)
- Roselle, the building in square E 10-11 (*Fig. B142*), dated to the Archaic period (the temple identification is uncertain)
- Roselle, Podere la Mota, dated to the early 5th century B.C. (the temple identification is uncertain).
- Rome, the temple of Castor and Pollux at the Forum Romanum, dated to 484 B.C. (*Figs. B314-B315*)
- Rome, the temple of Saturn at the Forum Romanum, dated to 498 B.C.
- Rome, the small temple/shrine on the Palatine (Building N) (*Figs. B301*), dated to the Archaic and the Late Archaic period
- Fidenae, dated to the Late Archaic period, though the identification as a temple is uncertain
- Lavinium, the eastern sanctuary, probably dated to 500-480 B.C. (no temple found yet, though)
- Lanuvium, dated to the early 5th century B.C. (the identification of the early temple is uncertain)

Some sanctuaries seem to have been placed along the perimeter or in a marginal position.

Unfortunately, the location of boundaries is uncertain. In some case, however, boundaries may be defined either by city walls (but only few exist in this period except in Latium), the size of the plateau, and the location of the cemeteries.<sup>736</sup>

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<sup>736</sup> G. Colonna in *Santuari d'Etruria* 1985, 68-69. He chooses to separate sanctuaries along a perimeter and sanctuaries in a marginal position, but given the fact that the boundaries of Archaic Etruscan cities are uncertain I have chosen to discuss these two types together.

Coarelli and Colonna argue that the reason for a location along a perimeter is the protective function of the temple and that the placement near the gates was related to initiation and purification rites.<sup>737</sup>

Colonna has further argued that the reason for a marginal location could be due to a continuation of an earlier cult, dating back to the Early Iron Age and before. For the sanctuary of Ceres, Liber and Libera a political reason for the location has been suggested, since it must have served as a reference point and a centre of organisation for the *plebs*.<sup>738</sup>

- Cerveteri, Valle Zucchara (due to the location in the extreme north of the plateau the temple could also have been sub-urban), dated to the second half of the 6th century B.C.
- Orvieto, the Belvedere temple (*Figs. B99-B100*). Since we do not know the extent of the Archaic city, it cannot be excluded that this temple was sub-urban
- Tarquinia, the possible sanctuary in the western end at the southern slope, dated from 530 B.C. onwards - this location could also have been sub-urban
- Satricum, the temple in the south-west area. Because of the cemeteries nearby it cannot be excluded that it was connected to these

#### *IB: Sub-urban sanctuaries*

These are identical to extra-mural sanctuaries, i.e. located immediately outside the city, that is outside the city wall or a similar boundary (*Fig. 146 and Plan 8*).<sup>739</sup> As mentioned above these boundaries are not always easy to determine. Since city walls are few in Etruria in this early period, I have chosen the term sub-urban. Sub-urban sanctuaries must have been administrated from the city. They were usually placed near roads/crossroads leading to the countryside, or near springs or other "natural" phenomenons. Such springs may have to do with rites of cleansing and purification before entering the city.

- Arezzo, Fonte Veneziana, a spring sanctuary dated from the third quarter of the 6th century B.C. No temple building was found, only walls which may originate from a temenos wall
- Civita Castellana, Celle, dated to the Late Archaic period (*Fig. B42*)<sup>740</sup>
- Marzabotto, the spring sanctuary, dated to 500-475 B.C. (*Fig. B84*)
- Tarquinia, Ara della Regina (*Figs. B192-B194*). Though the perimeter of the Archaic city is uncertain, this temple may have been sub-urban, at least in its earliest phase (550 B.C.). Edlund has suggested that in the late phase the sanctuary was urban<sup>741</sup>

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<sup>737</sup> Coarelli 1983, 11-117; G. Colonna in *Santuari d'Etruria* 1985, 68. Colonna gives a number of examples, all, however, dated to later periods.

<sup>738</sup> G. Colonna in *Santuari d'Etruria* 1985, 69 (with further references).

<sup>739</sup> G. Colonna in *Santuari d'Etruria* 1985, 98-115; Edlund 1987, 64-68.

<sup>740</sup> Edlund 1987, 73 regards Civita Castellana, Celle as an extra-urban sanctuary because it is located on the other side of the river. This fact is not in my opinion enough to call it extra-urban and considering the proximity of the sanctuary to the Vignale plateau sub-urban seems a more reasonable term (G. Colonna in *Santuari d'Etruria* 1985, 110 also considers Celle sub-urban).

- Veii, the Portonaccio sanctuary, southwest of the city, dated to the second half of the 6th century, possibly around 540-530 B.C. (temple A from c. 500 B.C.) (*Fig. B224-226*)
- Vulci, Fontanile di Legnisina, dated to the early 5th century B.C. (*Fig. B239-241*)
- Cerveteri, Fosse della Mola, two possible temples, dated to the Late Archaic period. These were probably sub-urban, though urban cannot be excluded
- Cerveteri, Valle Zucchara (either urban or sub-urban)
- Gabii, the eastern area, dated from 580 B.C. onwards (*Figs. B276-277*). This, however, is uncertain, since we do not know the extent of the Archaic city

Besides these numerous sub-urban sanctuaries are known, but very few have buildings in the Archaic period.<sup>742</sup>

#### *IC: Rural sanctuaries*

These were located in the country without any city nearby, and thus controlled by individual farmers or a group of farmers, perhaps a village.<sup>743</sup> They were modest shrines used by farmers to present small gifts to the gods. Sanctuaries of this kind are not easily recognisable archaeologically, and many more than have been found must have existed (compared with the many local shrines in Italy today). Edlund has suggested that many of these shrines originated from natural sanctuaries. Most of these sanctuaries are attested by votive finds only, a few have indications of a building (such as the Archaic roof tiles at Monte Becco) or an unroofed enclosure (such as Montegurazza).<sup>744</sup>

Sasso di Furbara may also have been a rural sanctuary, even if it seems to have had a roofed building, but the nature of the sanctuary is hard to determine, since it was only excavated through a short campaign of an emergency excavation and no plan is published. We do not know if a settlement was located nearby.

In Northern Etruria, especially in the area of the Po Valley, rural sanctuaries are numerous and almost always consisting of a votive deposit without buildings/temples.<sup>745</sup>

#### *ID: Natural sanctuaries*

It is of course difficult archaeologically to detect natural sanctuaries, but recently new attempts have been made by Ingrid Edlund-Berry.<sup>746</sup> We do know, however, from Roman literary sources that they existed. Seneca in a letter describes natural sanctuaries (*Epistle* 41.3): "If ever you have come upon a grove that is full of ancient trees which have grown to an unusual height, shutting out a view of the

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<sup>741</sup> Edlund 1987, 92 (with further references).

<sup>742</sup> For these sanctuaries see e.g. G. Colonna in *Santuari d'Etruria* 1989, 98-99.

<sup>743</sup> See e.g. Edlund 1984; G. Colonna in *Santuari d'Etruria* 1985, 149-159; Edlund 1987, 83-85.

<sup>744</sup> Edlund 1987, 83-84.

<sup>745</sup> G. Colonna in *Santuari d'Etruria* 1985, 160.

<sup>746</sup> I. Edlund, 'Man, nature, and the gods: a study of rural sanctuaries in Etruria and Magna Grecia from the seventh to the fourth century B.C.', in C. Malone & S. Stoddart (eds.), *Papers in Italian Archaeology IV, part IV*, *BAR* 246, 1985, 21-31; Edlund 1987, 30-43. See also Glinister 1997.



sky by a veil of pleached and intertwining branches, then the loftiness of the forest, the seclusion of the spot, and your marvel at the thick unbroken shade in the mist of the open spaces, will prove to you the presence of deity. Or if a cave, made by the deep crumbling of the rocks, holds up a mountain on its arch, a place not built with hands but hollowed out into such spaciousness by natural causes, your soul will be deeply moved by a certain intimation of the existence of God. We worship the sources of the mighty rivers; we erect altars at places with great streams burst suddenly from hidden sources; we adore springs of hot water as divine, and consecrate certain pools because of their dark waters or their immeasurable depth". Ovid (*Fast.* 3.295-296) mentions a sacred grove: "Under the Aventine there lay a grove black with the shade of holm-oaks; at sight of it you could say: "There is a spirit (*numen*) here"".

Such natural sanctuaries may be identified by offerings or other evidence of cults. They were known from the earliest Prehistoric periods, but one should always bear in mind that identification of votives/offerings is difficult, unless statuettes or anatomical votives are present (see also above).<sup>747</sup>

Natural sanctuaries could be found anywhere, both near and far from a city. Most of them were probably placed in the countryside or in remote mountainous regions and thus independent. Of course a simple sacred spring need not be administrated at all. I will not comment further on these, since they do not contain architecture.<sup>748</sup>

Some natural sanctuaries were monumentalized, especially those within or near a city. These have been discussed above. As an example can be mentioned the sub-urban sanctuary with a water cult located just outside Marzabotto (*Fig. B84*). Another example may be the spring sanctuary at Fonte Veneziana near Arezzo, dated to the third quarter of the 6th century B.C. In general many Etruscan sanctuaries are connected with water<sup>749</sup> (e.g. Celle at Civita Castellana (*Figs. B42-B43*), which is sub-urban, or Cannicella (*Fig. B101*), which is located in a cemetery), but whether this means that they are (monumentalized) natural sanctuaries or just that water was an important part in many cults (purification etc.) is hard to determine.

Thus all "basic" sanctuaries were located either within the city or just outside it, with the exception of the smaller and often not monumentalized rural and natural sanctuaries.

## 2. Sanctuaries with further aspects (extra-urban)

### 2A: Emporium and port sanctuaries

Some sanctuaries had connections to trade. We know from literary sources that merchants attended fairs and festivals at sanctuaries. A specific type of extra-urban sanctuary, however, is the so-called

<sup>747</sup> See e.g. Edlund 1987; Guidi 1980.

<sup>748</sup> For a discussion of the various natural sanctuaries in Etruria see Edlund 1987, 44-62.

<sup>749</sup> For water cult in Etruria see P. Aebischer, 'Notes et suggestions concernant l'étude du culte des eaux en Etrurie', *StEtr* 6, 1932, 123-144; Pfiffig 1975, 269-272; F. Prayon, 'Wasserkulte in Etrurien', in H. Heres & M. Kunze (eds.), *Die Welt der Etrusker*, Internationales Kolloquium 24.-26 Oktober 1988 in Berlin, Berlin 1990, 77-79.

emporium sanctuary, placed near the sea (*Fig. 147 and Plan 9*). The best example in Italy of an emporium is Pithekoussai on Ischia, a Greek/Phoenician trade station, dated from c. 775 B.C.<sup>750</sup> In general an emporium sanctuary is defined as an "international"/multiethnic sanctuary with a strong foreign (e.g. Greek or Phoenician) influence, but the administration of the sanctuary still seems to have been from the (larger) local city.<sup>751</sup> The purpose of such sanctuaries must have been to attract foreigners and possibly also as a meeting point between foreigners and the local population. As opposed to that the urban sanctuaries must have been intended for the use solely of the local population. Emporium sanctuaries were dedicated to more than one god. Such sanctuaries would also have functioned as asylums. Since it is often hard to distinguish between an emporium sanctuary and a port sanctuary, I will treat these as one, since they are both connected to trade.

- Gravisca is the most obvious example of a "true" emporium sanctuary in Etruria (*Fig. B53, Fig. B55, and Fig. B57*). The site lies on the coast near Tarquinia and functioned as a port for the town from the early 6th century B.C. The remains in the sanctuary date back to the late 7th century B.C., possibly as early as 630 B.C. Around 580 B.C. a small roofed rectangular building was erected, and it was rebuilt around 510 B.C. The earliest phase of the sanctuary was Greek, since the finds are Greek. The sanctuary was dedicated to Aphrodite, Hera, and Demeter, possibly also Apollo. In the Late Archaic period, possibly around 510 B.C. the sanctuary was reorganized and the evidence suggests that now the sanctuary was Etruscan, dedicated to Uni, Vei, and Turan. The Etruscan inscriptions, however, date back to 560 B.C. The plan of the building (phase II) may also suggest a kind of "*palazzo*"/meeting function.

- The sanctuary at Pyrgi with its strong Phoenician influence, as can for instance be seen from the gold tablets with the bilingual Etruscan-Phoenician inscription, may also be considered an emporium sanctuary (*Figs. B120-B130*). Pyrgi is considered the most important of Cerveteri's three ports, especially in the Late Orientalizing and Archaic periods. The earliest definite remains of the sanctuary is temple B, dated to the late 6th century B.C., though earlier architectural terracottas were found. The main sanctuary was dedicated to Uni/Astarte, while the sanctuary located in *Area Sud* (*Figs. B131-B132*) was dedicated to Suri and Cavatha, interpreted by Colonna as Apollo/Aplu and Vei/Demeter/Kore.

- Another sanctuary near Pyrgi may also have been an emporium sanctuary, namely Punta della Vipera/Santa Marinella, located near the coast (*Fig. B118*).<sup>752</sup> To what city or settlement this sanctuary belonged cannot be determined, though it is possible that it belonged to one of Cerveteri's ports, Punicum. Unfortunately the sanctuary is badly preserved and only preliminarily published. The

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<sup>750</sup> G. Buchner & D. Ridgway: *Pithekoussai I. La necropoli: tombe 1-723 scavate dal 1952 al 1961, Monumenti Antichi*, serie monografica, volume IV (LV della serie generale), Rome 1993 (with further references).

<sup>751</sup> Opposed to that Pianu 1985, 303 consider such sanctuaries (which he calls extra-urban) to have been run independently by a priesthood.

<sup>752</sup> As also suggested by M. Cristofani, 'Ripensando Pyrgi', *Miscellanea ceretana* I, *QArchEtr* 17, 1989, 93. On the other hand it is considered a rural sanctuary by Colonna (*Santuari d'Etruria* 1985, 149) and an extra urban sanctuary by Edlund (1987, 77).

sanctuary was dedicated to Menerva and is dated to 540-530 B.C. The third port town of Cerveteri (Alsium) is probably to be located at Marina San Nicola, but no evidence of sanctuaries has been found.<sup>753</sup>

- In Rome S. Omobono (*Figs. B321-B328*) may also have been an emporium sanctuary, because of its closeness to the Tiber.<sup>754</sup> Coarelli has argued that there was a port here.<sup>755</sup> At this point, closest to Rome, was the point of crossing as well as the place for transshipment of goods to go further up the river. The salt trade was probably one of the most important acts of commerce taking place here as signified by the name of the trade route, Via Salaria.<sup>756</sup> In the Forum Boarium was also located the cult of Hercules Victor and the *Ara Maxima*, closely connected to commerce,<sup>757</sup> and a large amount of Greek pottery was found here.

It is uncertain whether Forum Boarium was located inside or outside the pomerium. According to Coarelli Forum Boarium was inside the pomerium (believed to follow the Servian walls) while the Portus was outside the pomerium.

- *Locus Solis Indigetis*/Tor Vaianca, located near Lavinium near the coast and the Fosso di Pratica (possibly the ancient river Numicus). Though the identification of the sanctuary is uncertain because of the excavation/publication (walls of unknown date), votives (of unknown date) suggest a sanctuary which may date back to the Archaic period (Archaic architectural terracottas). The location by the coast and the river suggest a port sanctuary.

Emporium sanctuaries have thus so far only been securely attested from Southern Etruria, while the examples from Latium (Rome, S. Omobono and *Locus Solis Indigetis*) are uncertain. The Etruscan emporia may be either Greek/Etruscan (Gravisca) or Punic/Etruscan (Pyrgi). The nature of the remaining emporium/port sanctuaries is uncertain. The earliest is the Greek sanctuary at Gravisca, dated to the early 6th century B.C. Punta della Vipera is dated to 540-530 B.C., while the remaining sanctuaries are dated to the late 6th century B.C.

## 2B: Sanctuaries within a cemetery

Cult in various forms is also present in cemeteries. These cults must have been directed either at chthonic deities and/or ancestors.<sup>758</sup> The earliest signs of cult in cemeteries date to the Late Orientalizing/Early Archaic periods. This was either in the form of altars (see also above), and/or steps leading up to a platform above the tomb (e.g. in Cerveteri), presumably for some rituals connected to the ancestral cult.

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<sup>753</sup> Mafei & Nastasi 1990, 33.

<sup>754</sup> Coarelli 1988; Cornell 1995, 112; Smith 1996, esp. 179-183.

<sup>755</sup> For a discussion of this see Smith 1996, 180-182.

<sup>756</sup> Coarelli 1988; Smith 1996, 179-180.

<sup>757</sup> Both a Greek and a Phoenician origin for Hercules Victor has been suggested, but there is no archaeological evidence for this (see Cornell 1995, 69 with further references).

<sup>758</sup> For a discussion of Etruscan ancestral cult see Damgaard Andersen 1993b.

As an example of an altar can be mentioned the one found at Cortona, Melone del Sodo II (a tumulus with a tomb with seven chambers).<sup>759</sup> This is a monumental altar with six steps, jutting out from the perimeter and just off axis with the diameter of the tumulus. Both the tumulus and the altar can be dated to the early 6th century B.C.

Further evidence of religious ceremonies/offerings to the dead is known from a number of cemeteries in Etruria, through finds such as altars and platforms, e.g. the monument at S. Giuliano, Tomba Cima.<sup>760</sup> Near the tomb was a long rectangular basis for 17 cippi, cut out of the tufa (*Fig. 61*).<sup>761</sup> Within the southern row was a circular depression, possibly for a small altar. This monument is probably dated to the third quarter of the 7th century B.C.

Only one (monumentalized) sanctuary is known from a cemetery in Etruria from the Archaic period (*Fig. 148*) (though they become more numerous in later periods),<sup>762</sup> namely the Cannicella sanctuary outside Orvieto (*Fig. B101*). Votive offerings (bronze and terracotta figurines, a few from the 6th and 5th centuries B.C., but the majority from the 4th and 3rd centuries B.C.), terracotta altars (6th-1st centuries B.C.),<sup>763</sup> and several water-channels and cisterns were found. The latter probably indicate a water cult.<sup>764</sup> That cult activity took place at Cannicella is thus certain, but the function of the building with the antefixes, however, is less certain: it may have been related to the cult or it may have functioned as a funerary building (see below the section on funerary buildings).

The architectural terracottas found on the Esquiline in Rome, dated to 540-530 B.C. and the Late Archaic period, suggest at least two buildings or phases.<sup>765</sup> Considering the large amount of Archaic votives found these terracottas probably originated from temples within the cemetery.

Prayon has suggested that Civita Castellana, Celle also could have been located in a sanctuary, since tombs were found in the vicinity, but this is uncertain. The evidence from Orvieto, Campo della Fiera, is likewise uncertain.

The temple in the south-west area at Satricum was located near a cemetery, thus a connection to the cemetery cannot be excluded. On the other hand habitation quarters were also nearby.

Vetralla is also usually considered a sanctuary in a cemetery, but nothing supports the identification of the building as a temple (see below on funerary buildings).

Finally should be mentioned that the close connection between sanctuaries and cemeteries/funeral cult also can be seen in Tarquinia, Pian di Civita, where the early cult was centred around the burial of

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<sup>759</sup> T. Rasmussen, 'Archaeology in Etruria 1985-1995', *AR* 42, 1996, 56, fig. 17.

<sup>760</sup> See chapter 3.

<sup>761</sup> See chapter 3.

<sup>762</sup> For sanctuaries in cemeteries in general see G. Colonna in *Santuari d'Etruria* 1985, 116-126; Edlund 1987, 70.

<sup>763</sup> Unfortunately the exact location of these finds is unknown.

<sup>764</sup> S. Stopponi, however, suggests that some of the *vasce* were used for the preparation of wine (*Santuari d'Etruria* 1985, 117).

<sup>765</sup> See the appendix.

a boy (from the Early Iron Age) and later the burial of a man, violently killed (human sacrifice?) in the mid-8th century B.C.

### 2C: "Political" sanctuaries and "palazzi"

By "political" sanctuaries I understand sanctuaries that were meeting points for especially political/religious leagues (*Fig. 149, Diagram 13 and Plan 10*).<sup>766</sup> Such sanctuaries were not dependent on one city, but must have been administrated by a coalition of cities. They were placed centrally between important cities and near communication routes (near the sea, along roads/road junctions, along transhumance routes, along rivers, and at mountain passes).

From literary sources we know that many temples in Rome had a similar political function since e.g. the senate often met at temples. We also know that Roman temples functioned as places of refuge. The Etruscan temples may have had a similar function, and thus have been ideal for meeting places on "neutral grounds".

Unfortunately most of our information on the Etruscan "political" sanctuaries is based solely on literary sources. The most famous was the *Fanum Voltumnae*, where the 12-city league met.<sup>767</sup> It is probable that both religious, military, political, and administrative affairs were discussed here, perhaps at annual/monthly meetings. The layout of the sanctuary is uncertain, and it is not even certain that there was a temple/a sacred building.

According to Dion. Hal. (*Ant. Rom.* 3.51) five cities (Chiusi, Arezzo, Volterra, Vetulonia, and Roselle) formed a smaller confederation of northern Etruscan cities, assisting the Latins against Tarquinius Priscus (traditionally dated to 616-579 B.C.), but we do not know where they met. Murlo has been suggested because of the central locations in Northern Etruria and because of the large courtyard.

*Lucus Feroniae* in the Faliscan area may also have been a "political sanctuary", but how far back it dates it uncertain.<sup>768</sup> The layout of this sanctuary is thus also uncertain and it is not certain that there was a temple/sacred building.

Both *Fanum Voltumnae* and *Lucus Feroniae* had a strong element of trade. According to Livy (6.2.2) news of the activities at the *Fanum Voltumnae* was spread by merchants. According to several ancient sources (Livy 1.30.5; Dion. Hal., *Ant.Rom.* 3.32.1) *Lucus Feroniae* was known for its trade fairs.

Besides functioning as meeting places these sanctuaries would have been used for religious ceremonies and games. Edlund has therefore suggested that such meeting places would require large open spaces, probably surrounded by walls. Furthermore there could have been an altar for the god/goddess, though not necessarily a temple. Banquets would probably also have been held at such sanctuaries.

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<sup>766</sup> Edlund 1984; Edlund 1987, 85-92.

<sup>767</sup> See also the appendix.

<sup>768</sup> See the appendix.

Literary sources mention several "federal sanctuaries" and religious festivals in Latium, which must be related to "political" sanctuaries. The most important festival was the *Feriae Latinae*, celebrated each year on Mons Albanus. These were held in honour of Jupiter Latiaris, who in the legend was identified with Latinus, the eponymous ancestor of the tribe (Festus p. 212 L). At this meeting each tribe confirmed its membership of the "Latin nation".<sup>769</sup> Apparently there were many different leagues in Latium.<sup>770</sup> At the sanctuary of the 13 altars at Lavinium Latin festivals were also held, and it has been suggested that the 13 altars were erected by the different Latin tribes. Another federal sanctuary was the Diana sanctuary on the Aventine in Rome, founded by Servius Tullius. Being located outside the pomerium this also functioned as a common shrine for all the Latins. Finally should be considered the Diana sanctuary at Nemi. The origin of this sanctuary is obscure and there has been a long debate whether it predated the Diana sanctuary on the Aventine or not.<sup>771</sup> The cult statue has also been debated, but there is no evidence that this goes back to the Archaic period (see above the discussion on cult statues). Literary sources mention other federal sanctuaries, all located outside the cities (Ardea, Lavinium,<sup>772</sup> Gabii, and Tusculum<sup>773</sup>). In general we have no evidence that these sanctuaries were monumentalized in any way. In the case of Lavinium the altars and an affiliated sacred building have been found, but no temple (*Fig. B289-B291*).

Who participated in these cults is uncertain. Regarding the *Feriae Latinae* it is clear that the attendance was restricted to specific tribes, but for some of the others the rules of attendance were probably less strict.<sup>774</sup>

Finally should be discussed the meetings of the Latin league taking place at the grove of Ferentina near Ariccia (*Lucus Ferentinae*), mentioned by numerous sources (primarily Livy I.51.9 and Dion. Hal. *Ant. Rom.* 3.34.3 and 4.45.3). This league was according to Cornell a political and military league, which should be distinguished from the above-mentioned religious leagues. The main reason for that is that Rome was never a member of a general Latin alliance and thus excluded from the meetings at *Lucus Ferentinae*; in fact Cornell suggests that the league was formed against Rome. The site is probably to be located at Laghetto di Turno (*Lacus Turni*) near Castel Savelli, c. 2 km west of Albano.<sup>775</sup>

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<sup>769</sup> Cornell 1995, 294-295.

<sup>770</sup> Smith 1996, 218 (with further references).

<sup>771</sup> For a summary of this discussion see e.g. Smith 1996, 217-218.

<sup>772</sup> Strabo 5.3.5.

<sup>773</sup> According to Pliny *HN* 16.242 this sanctuary was *sacratus a Latio*.

<sup>774</sup> Smith 1996, 220.

<sup>775</sup> C. Ampolo, 'Ricerche sulla lega latina I: Caput aqua Ferentinae e lacus Turni', *PP* 37, 1981, 219-233; G. Colonna, 'Il Lucus Ferentinae ritrovato?', *Archeologia Laziale* 7, *QArchEtr* 11, 1984, 40-43; G. Manca di Mores, 'Una testa fittile di satiro a Castel Savelli', *Studi Classici* 1, 1984-1985 (Annali della Facoltà di Lettere e Filosofia, Università degli studi di Perugia 22, n.s. 8), 183-189; Cornell 1995, 297-298.

A specific kind of "political" sanctuary is the Regia in Rome (*Figs. B309-B313*). Though it is not a temple in the ordinary sense, it is connected with the religious sphere, as well as being the *domus regis*.<sup>776</sup> The function of the Regia has been much debated. According to the literary sources it was the *domus regis sacrorum* and was used as such until the Augustan period. The building probably functioned as a *sedes regis*, connected with a cult function, though it is uncertain when these cults were established. The Regia thus points to a domestic function of a "political" sanctuary as well as being the home of a *rex* or chieftain. The courtyard could have been used for meetings.

A building with a similar function as the Regia, that is both a domestic, civic and/or a sacred function, may be the *Casa del recinto* in Roselle (*Figs. B137-B138*), dated to the third quarter of the 7th century B.C., since both domestic objects and a few dedicatory inscriptions (though of a later date) were found. But interpreting the many domestic finds as indications of a Vesta cult, as e.g. Colonna does, seems unfounded. The large precinct could have been used for meetings and thus the buildings could have had a function similar to the Upper Building at Murlo (see below) or Regia.

Another possible "political" sanctuary is the above-mentioned sanctuary found during the new excavation at Pian di Civita at Tarquinia (Building Beta) (*Figs. B175-B191*), though its function is uncertain.

At Montetosto near Cerveteri (*Figs. B86-B87*) a sanctuary (defined as such from the finds of two altars and possibly Archaic statuettes, though these sacred finds are uncertain) was found. It consisted of a large rectangular building with four wings around a central courtyard.

At Narce, Monte Li Santi (*Fig. B97*), part of a building has been excavated, which may have had a similar layout. The building (the dating of which is uncertain) consisted of two wings and a central courtyard, but further excavations may reveal more wings. The site has definitely been identified as a sanctuary because of altars and votive finds, dating back to the early 5th century B.C. Both Montetosto and Narce are almost similar in size, approximately 40 x 40 m. These complexes probably also had a domestic function.

Torelli has suggested that these "political" sanctuaries should be called *regiae* because of the integrated function (domestic and sacred) which is also seen in the Regia in Rome. Vergil also uses the word *regia* to describe Latinus' palace (*Verg. Aen. 7.169-191*).

Thus, we have important evidence to an integrated or multiple function type of building in Latium and Etruria in the Archaic period. This integrated function of secular and sacred may go back to the Early Iron Age, as can be inferred from the evidence from Satricum, Gravisca, and Tarquinia discussed above.

A specific kind of "political" sanctuary should finally be mentioned, which also combine the sacred with the domestic sphere. At San Giovenale a building near the bridge (*Figs. B169-B172*), dating to the first half of the 6th century B.C. (with a possible predecessor), has been found. This building,

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<sup>776</sup> See Coarelli 1983, esp. 77-78.

however, is very small. The finds (domestic pottery, the benches for banquets (?) and the votive inscriptions) indicate a domestic as well as a sacred function. The building clearly had an integrated or multiple function.

A building type related to "political" sanctuaries as well as both civic and domestic buildings is the so-called "*palazzo*". Since no evidence of certain sacred activity have been found I have chosen to call these "*palazzi*", instead of "political" sanctuaries, though they may have had very similar functions.<sup>777</sup>

"*Palazzi*" are defined as large buildings with open space (often a central courtyard), where meetings could take place. At the same time they show evidence of habitation for a wealthy family, probably a (local) chieftain. They had large rooms that could have been used for banquets or meetings, thus a kind of civic function. Finds are often a combination of rich finds (ivory, gold, imported fine ware pottery) and at the same time numerous examples of domestic pottery. What sacred importance these buildings had is uncertain. Literary sources mention similar types of buildings, such as Latinus' palace.

Such "*palazzi*" have been found at Murlo, the Lower Building, dated to 640-630 B.C. (*Fig. B92*) and the Upper Building, dated to the early 6th century B.C. (*Fig. B92 and Figs. B94-95*), Castelnuovo Berardegna, dated to the late 7th/early 6th century B.C. (*Fig. B29*), Acquarossa Zone F, phase 1 dated to c. 600 B.C. (*Figs. B13-B14*) and phase 2, Building A and C, dated to the mid-6th century B.C. (*Fig. B12 and Figs. B15-B18*).

That meetings took place at least some of these buildings is implied in the literary sources. As mentioned above Dion. Hal. claims that a northern league existed. Edlund has suggested that a possible meeting place for the northern league could have been the Lower Building/Upper Building at Murlo.<sup>778</sup> There has, though, been much debate as to the identification of these "*palazzi*", especially the Upper Building at Murlo.<sup>779</sup> Previously it was considered a sanctuary. The principal arguments in favour of the identification as a sanctuary have been the size and nature of the building, the supposed sacred character of the architectural terracottas, especially the frieze plaques, and the deliberate destruction of the site.<sup>780</sup> These arguments are not, however, cogent. Of all the finds from Murlo so far none can be said to have a definitely sacred character, such as e.g. votive offerings, altars, or votive inscriptions. On the contrary, a large amount of domestic pottery/coarse ware etc. have been found, clearly signifying that a fairly large number of people must have lived here, at least part of the year.

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<sup>777</sup> For discussion on "*palazzi*" see R. Staccioli, 'Considerazioni sul complesso monumentale di Murlo e Acquarossa', *Melanges offerts à J. Heurgon*, Paris-Rome 1976, 961-972; Torelli 1983; *Case e palazzi* 1985; Sheffer 1990; Wikander & Wikander 1990; Maaskant-Kleibrink 1991.

<sup>778</sup> Edlund 1987, 87-92; I.E. Edlund-Berry, 'Power and religion: how social change affected the emergence and collapse of power structures in central Italy', *Papers of the Fourth Conference of Italian Archaeology 2, The archaeology of power part 2*, 1991, 165.

<sup>779</sup> For a recent treatment of this problem see E. Nielsen & K. Philips. Jr. in *Case e palazzi d'Etruria* 1985, 64-69; A. Rathje, 'Alcuni considerazione sulle lastre di Poggio Civitate con figure femminile', in A. Rallo (ed.), *Le donne in Etruria*, Rome 1989.

<sup>780</sup> This has recently been argued by Edlund 1987, 87-92, esp. 91-92.



The scenes on the frieze plaques need not have any sacred significance at all (the seated figures frieze may show an assembly of e.g. magistrates, the banquet an ordinary banquet etc.), and even if they had a sacred significance this would not automatically identify the building as a sanctuary. The seated figures akroteria on the roof have been interpreted as deities, but more likely they represent ancestors.<sup>781</sup> The ancestral evidence corresponds to the evidence from Latinus' palace, where statues of ancestors were placed in the building (Verg. *Aen.* 7.170ff). The plan of the building itself does not suggest any kind of sanctuary, since it does not correspond to any known plan of an Etruscan temple. Thus the evidence from Murlo points to a secular activity rather than a sacred, though it cannot be excluded that the building had a sacred element. The Lower Building at Murlo can be interpreted as a rich aristocratic dwelling, possibly with a function similar to the one of the Upper Building. The finds (ivory, gold, bucchero cups etc.) suggest that we are dealing with buildings equalling the rich tombs known from e.g. Palestrina from the same period.<sup>782</sup> The large amount of domestic/coarse ware pottery found also indicate that the building was used for habitation.

The identification of the monumental complex at Acquarossa, zone F has been much debated, but the monumental character implies that the complex should be interpreted as partly a habitation for the chieftain, partly as a political, administrative, and commercial centre of Acquarossa. At least so far nothing has been published which suggest a sacred function, though this of course may have been one among many of the functions of the building.<sup>783</sup> A building south of the complex, building F in zone C, is by some scholars interpreted as a temple because of its elongated plan and the precinct wall. Unfortunately the building was severely damaged by ploughing and very little was found that can be associated with the building, but nothing of a religious character. Thus I do not believe that it is possible to interpret this building as a temple on these grounds.

Buildings of a similar type have also been found in Latium, at Satricum, courtyard building A-B, dated to 580-560 B.C. (*Figs. B341-B342*), and building C, dated to 530/520 B.C. (*Figs. B344-B345*) and the two buildings in the central area ("Vigna Nuova") in Lavinium, dated to the late 7th/first half of the 6th centuries B.C. (*Figs. B285-B286*). It is possible that courtyard buildings of a type similar to Satricum also existed in Veii at Piazza d'Armi.

The so-called *oikos* at Veii, Piazza d'Armi, dated to the early 6th century B.C. (*Figs. B210-B213*) may also have had a "*palazzo*" function, even if it is rather small. The ground-plan resembles an ordinary domestic building, but the presence of architectural terracottas suggests status - perhaps the residence of a chieftain or a civic building?

Nothing in these buildings indicates any sacred function and the main function must have been domestic, though possibly also with some kind of civic function.

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<sup>781</sup> Damgaard Andersen 1993b, 29, fig. 35.

<sup>782</sup> Rystedt 1984.

<sup>783</sup> The so-called altar in front of building A (see e.g. Östenberg 1975, 25-26) is dubious. See also M. Strandberg Olofsson in *Case e Palazzi d'Etruria* 1985, 57.

Many scholars have seen close similarities between the plan and size of these "*palazzi*", especially Acquarossa zone F (especially the early phase, dated to c. 600 B.C.), Murlo (the Lower Building, dated to 640-630 B.C.), Satricum building A, dated to 580-560 B.C., the Regia of the late 6th century B.C. and finally with building F on the Agora of Athens.<sup>784</sup> Some scholars even suggest that this (rectangular) building type was introduced from Greece. Considering that building F on the Athenian Agora is dated to the mid-6th century B.C., this is hardly likely.<sup>785</sup>

To sum up it is clear that "political" sanctuaries and "*palazzi*" had a very similar function, though "political" sanctuaries may have been built for a specific religious purpose, while the "*palazzi*" more combined the domestic function/the home of a chieftain with a civic and administrative function, especially meetings, but possibly also a sacred function. They seem to emerge in the second half of the 7th century B.C. as the evidence from the earliest phase of Acquarossa zone F and Murlo, the Lower Building, imply. The system seems to be fully developed in the early 6th century B.C. with the Upper Building at Murlo and later with Acquarossa, zone F, Building A-C. The system gradually died out to be replaced by "ordinary" sanctuaries in the late 6th century B.C., but the integrated domestic and sacred function of buildings continue into the early 5th century B.C. and perhaps even later, as can be seen from Montetosto and Narce, Monte Li Santi.

A similar phenomenon may be seen in the southern part of Central Italy and Magna Grecia, where some large sanctuaries have been called "federal sanctuaries".<sup>786</sup>

On the other hand a number of courtyard buildings seem to have had primarily a domestic function, perhaps also a civic function (Satricum, Lavinium, and the possible courtyard houses at Veii, Piazza d'Armi).

All these buildings varied in size from modest buildings to large ones with a number of rooms, often centred around or next to a courtyard. They had stone foundations and tiled roofs, most of them with architectural terracottas (from 640/630 B.C. onwards).

Another type of sanctuary should perhaps be mentioned here, namely sanctuaries at crossroads and border sanctuaries.<sup>787</sup> Since it is difficult in this period to identify both crossroads and borders, I have chosen to leave out these types of sanctuaries. While border sanctuaries are common in Greece,<sup>788</sup> we have in fact no evidence for such in Etruria nor in Latium. What is called border sanctuaries in Greece may in fact be called emporium sanctuaries and "political" sanctuaries in Etruria and Latium.

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<sup>784</sup> Sheffer 1990; Wikander & Wikander 1990.

<sup>785</sup> See also Maaskant-Kleibrink 1991, 103-104.

<sup>786</sup> This term is discussed by M. Torelli, 'Greci e indigeni in Magna Grecia: ideologia religiosa e rapporti di classe', *Studi Storici (Ist. Gramsci)* 18, 1977, 45-61.

<sup>787</sup> Border sanctuaries are e.g. discussed by Glinister 1997, 77-78, but all the example she mentions are from a later period.

<sup>788</sup> See e.g. de Polignac 1995, 36-37.

As we have seen, a large number of sanctuaries are known. If we base the different types of sanctuaries on function rather than of proximity/relation to the city two types of sanctuaries/temples are present in Etruria and Latium: sanctuaries with a "basic" sacred function and sanctuaries with further aspects: an emporium/trade function and/or a "political" function and sanctuaries in cemeteries. The "basic" sanctuaries were all placed within the city or just outside it (urban and sub-urban). To these should be added local rural and natural sanctuaries, primarily placed in the countryside. The sanctuaries with further aspects were placed some distance from the cities (extra-urban) and near communications routes.

The "basic" sanctuaries naturally had no use for neither political nor trade aspects since these were dealt with elsewhere, such as civic buildings/"*palazzi*" (for political affairs) and open areas/"*fora*" for trade.

Regarding the relation to the nearby city/cities, urban and sub-urban sanctuaries naturally would have been administrated from the city. This must also have been the case for the sanctuaries in cemeteries and the emporium/port sanctuaries. "Political" sanctuaries on the other hand must have been jointly administrated (either directly or via representatives on the site) from a number of cities. Rural sanctuaries and natural sanctuaries - in so far as they needed administration - must have been administrated by the local population/chieftans.

### **The gods**

Unfortunately we have very little evidence for the early religious beliefs/cults in Etruria and Latium from the prehistoric periods to the end of the Archaic period. I have elsewhere argued that representations of "the Mistress of the Beasts" are fairly numerous in Etruria from the Orientalizing period and onwards, perhaps even as early as the Early Iron Age, and I have argued that a Mistress of the Beasts cult may have been the most important early cult in Etruria.<sup>789</sup> This would fit well with the only early statuette known, namely that of a Mistress of the Beasts found at Cortona (but without any context), dated to the late 7th century B.C. (for this see above). Together with this cult we have evidence of an early ancestral cult, which continued well into the Archaic period.<sup>790</sup> While the ancestral cult seems to be purely founded in Etruria and Latium with its own iconography and rituals, the Mistress of the Beasts cult soon adapted Near Eastern iconography. Thus these two types of cult were related to nature on one hand (the Mistress of the Beasts) and the family/house/dwelling on the other hand (ancestral cult). Besides cult taking place in nature, the domestic building (of the chieftain?) was the centre of the cult (the integrated function) until well into the 6th century B.C. and even later, when specific cult buildings/temples came in fashion. This can be seen from the early huts with a cult function (see above), the integrated function of the "*palazzi*", and especially in Latium do we have evidence that the house was central for the cult as can be seen from the cult of Vesta and the

<sup>789</sup> Damgaard Andersen 1992-1993.

<sup>790</sup> Damgaard Andersen 1993b. The many inscription with the word *mulu*, votive gift, found in the cemeteries at Cerveteri (see the appendix) may also point to an ancestral cult in cemeteries.

*genius* and *Lares* cults.<sup>791</sup> As mentioned above Latinus' palace had statues of his ancestors, which also confirm the importance of the family and the house.

It is frequently argued that the introduction of Greek mythology and "the coming of the Greek gods" to Central Italy took place in the 7th century B.C.<sup>792</sup> Several scholars, e.g. Torelli, has pointed to a few vases,<sup>793</sup> which show Greek mythological scenes, such as the Aristonothos vase with the naval battle between Greeks and Etruscans on one side and the blinding of Polyfemos on the other. This vase is dated to c. 650 B.C. Other examples are an ivory situla with Odysseus, dated to c. 600 B.C., and an Etrusco-Corinthian oinochoe with Ilioupersis. An example of a Greek myth is incised on Faliscan pottery, dated to 650-625 B.C., showing the fight between Nessus and Herakles.<sup>794</sup> But these examples are few, and the use of a few Greek mythological scenes does not necessarily mean that Greek mythology and - according to Torelli - at a later stage Greek gods were introduced and adapted into the Etruscan religion and society. Furthermore in some cases it is clear that the myth is misunderstood, and that the (original Greek) myth thus was not well-known: in the Faliscan depictions of Nessus and Herakles, Nessus, instead of Herakles, holds the sword. In fact, motives from the Near East are much more dominant in this period than Greek,<sup>795</sup> but of course this should not be interpreted as Etruria having taken over Near Eastern religious beliefs. One striking example of Near Eastern influence, however, can be seen in the building technique (*murs a piliers*, closely resembling eastern/Phoenician building technique) of Building Beta at the sanctuary at Tarquinia, Pian di Civita, where the earliest Etruscan temple has been found (*Figs. B181-B191*). In plan it looks like a domestic building with an anteroom and another room to the rear (compare e.g. the huts at Monterozzi (*Fig. 2*) or the early phase of House I on the acropolis of San Giovenale (*Fig. B163*)). Even though we do not know to which deity this sanctuary was dedicated it is tempting to see this building as a first attempt to build a monumental building dedicated to a deity, not in a Greek style, but in a Near Eastern style. Thus I do not see any profound Greek influence on Etruscan religion in the 7th century B.C., and the Near Eastern influence is much more pronounced, especially in Tarquinia. A temple building in a foreign building style is something entirely different in terms of foreign religious influence than a few vase pictures. In the 7th and 6th centuries B.C. Protocorinthian and Corinthian vases were exported to Etruria and Latium in large numbers. In the 6th century B.C., especially towards the middle and later, we see a huge amount of especially Attic vases imported into Etruria, a large portion of which had mythological scenes. The question is of course what significance such vases had. Are they to be taken as evidence for a profound Greek influence into Etruscan civilization and culture, including the

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<sup>791</sup> See also Torelli 1986, 167.

<sup>792</sup> E.g. Torelli 1986.

<sup>793</sup> Torelli 1986, 171-174.

<sup>794</sup> Potter 1979, 70, fig. 20 (with further references).

<sup>795</sup> That the Near East in this period was more influential than the Greeks can for instance also be seen from the fact that monumental sculpture seems to have been introduced to the area of Cerveteri and Bologna by Syrian craftsmen, not Greek (Colonna & von Hase 1984), and that works in precious metal were influenced by Oriental craftsmen (see e.g. Ridgway & Serra Ridgway 1994, 8).

Etruscans taking over Greek mythology and later the Greek pantheon, or are they merely to be interpreted as luxury/prestige products, just like china in England some hundred years ago or Coca Cola in Africa today? I believe the latter (at least for the 7th and first half of the 6th centuries B.C.) and, contrary to the common beliefs, I see profound Greek influence in Etruscan religion as taking place much later, in the second half of the 6th century B.C., especially around 540/530 B.C., where we have the first statue/statuette representations of "Greek" gods in Etruria,<sup>796</sup> the first substantial representations of Greek myth by the Etruscans, not only on vase painting, but also on wall painting and architectural terracottas (e.g. the Herakles friezes at Acquarossa, the antepagmentum with the Seven against Thebes from Pyrgi or the akroterion with Eos and Kephalos from Cerveteri)), and - as we have seen - the first examples of temples in a "Greek style" such as Pyrgi, temple B. In the same period is seen the first representation of Juno Sospita, both on bronzes and on Pontic vases.<sup>797</sup>

It has also been suggested that to a large extent the personification of the gods in Central Italy was taken over from the Greeks. The many early representations of the Mistress of the Beasts, however, show that personifications were an early phenomenon, perhaps as early as the Early Iron Age.<sup>798</sup> But of course the many later Etruscan gods take their mythology and attributes from the Greek gods/goddesses, but adapted to fit Etruscan religious beliefs. But such a process of changing the image, nature and concept of gods/goddesses and religion is a long and slow one, not a change that a few (or even a large amount) of Greek vases could do in a few years.

In the early Etruscan period none of the gods have "Greek" names, but in a number of cases it is possible to relate the Etruscan, Latin and Greek gods:

### Major goddesses

Etruscan	Latin	Greek
Arit(i)mi/Artume(s)	Diana	Artemis
Cavatha	Ceres/Libera	Demeter/Kore/Persephone
Celthestra/Celthe	Terra	Gaia
Ethausva		
Feronia	Feronia	
Letun	Latona	Leto

<sup>796</sup> Richardson 1976.

<sup>797</sup> R. Hampe & E. Simon, *Griechische Sagen in der frühen etruskischer Kunst*, Mainz am Rhein 1964, 5, tav. 5; Richardson 1964, 360-361; *LIMC* V, 1990. 819-822.

<sup>798</sup> Damgaard Andersen 1992-1993.

Menvra/Menerva	Minerva	Athena
Phersipnai	Proserpina	Persephone
Thalna		
Thanr		
Thesan	Aurora	Eos
Turan	Venus	Aphrodite
Uni	Juno	Hera
Uni (?)	Fortuna	
Uni (?)	Mater Matuta	
Uni (?)		Leukothea
Uni (?)		Eileithya
Vei	Ceres/Libera	Demeter
Venai		

**Major gods and heroes**

<b>Etruscan</b>	<b>Latin</b>	<b>Greek</b>
Aita	Dis/Pluto	Hades
Aplu	Apollo	Apollo
Atunis		Adonis
Castur & Poluce/ tinias cliniar	Castor & Pollux	Kastor & Polydeukes/ Dioskuroi
Cath/Cautha		Helios
Charun		Charon
Culsans	Janus	
Fufluns	Bacchus/Liber	Dionysos
Hercle	Hercules	Herakles
Laran	Mars (?)	Ares (?)
Maris	Mars (?)	Ares (?)
Nethuns	Neptun	Poseidon
Rath	Apollo	Apollo
Satre	Saturnus	Kronos
Selvans	Silvanus	
Sethlans	Vulcan	Hephaistos
Summanus		
Suri	Apollo	Apollo
Tages		
Tin/Tinia	Jupiter	Zeus
Turms	Mercur	Hermes
Usil		Helios

Vetis/Veive	Ve(i)ovis	
Voltumna/Velthumnae	Vortumnus/Vertumnus	
	Saturnus	

As we shall see, even if the Etruscan gods and goddesses to some extent took over the iconography and attributes of their Greek counterpart, they cannot be identified with the Greek gods as such. Most of these gods preserved their original name. Etruscan versions of Greek names are mostly a late phenomenon (from the 4th/3rd centuries B.C. onwards), and only used for a few gods and deities: Aplu for Apollon; Aritimi/Artume for Artemis; Letun for Leto; Castur and Puluce for Castor and Pollux; Aita for Hades, Phersipnai for Persephone; and Charun for Charon. Aritimi/Artume, however, is used for Artemis<sup>799</sup> and Hercle is used for Herakles from the Late Archaic period.<sup>800</sup> In the Faliscan area (Civita Castellana, Vignale) an inscription with *Apolonos* is known, dated to c. 500 B.C. The nature of the gods was also in many cases different. Many Etruscan goddesses have chthonic aspects, e.g. Uni and Menvra, unlike their Greek "counterpart". Chthonic is not to be understood as being related to the cult of the dead or the Underworld, but more earthly matters, i.e. what is related to the earth and fertility/fecundity, life, and health.<sup>801</sup> This chthonic aspect is also closely related to the concept of "The Great Mother". As opposed to that stand the Olympian goddesses Hera and Athena and the Roman/Latinal Juno and Minerva, both part of the *superi*, not the *inferi*. Menvra is no Parthenos like Athena, nor a *virgo* like Minerva.

To these gods and goddesses should be added several that we do not know the name of, such as the snake goddess seen on terracotta slabs from Cerveteri (*Fig. 150*) and the goddesses connected to the curative powers of springs (such as mentioned by Frontin (*de acq.* 1.4)) as well as numerous "demons", such as Vanth, for which we have no Greek parallel.

Torelli has also argued that in general we see a "Grecification" of the Etruscan cult from the 7th century B.C. onwards.<sup>802</sup> This he sees in the votive objects such as firedogs (which are also found in domestic contexts),<sup>803</sup> vases for offering, statuettes etc. and also in the temenos, the altar, the columns, the architectural decoration, the propyla and stoas, *horoi*, and cippi. Even if these objects are also found in Greece, most of them are universally used in cult, not only in Greece. Some of the above elements are of course taken over from Greece, but we have no evidence for this in a sacred context in the 7th century B.C.

<sup>799</sup> Seen on a bucchero fragment from Veii (Richardson 1964, 337-338 (with further references)).

<sup>800</sup> E.g. on the votive inscriptions from San Antonio at Cerveteri (not yet published).

<sup>801</sup> See e.g. Pfiffig 1975, 58.

<sup>802</sup> Torelli 1986, 186.

<sup>803</sup> As argued by C. Sheffer, 'Etruscan firedogs', *OpRom* 13, 1981, 57-59.



Unfortunately, in many cases we do not know which god or goddess were worshipped at the specific temple/sanctuary.<sup>804</sup> One of the main problems is that we have very little evidence to base our knowledge upon. In the case of a votive inscription to a god or goddess (such as the 6th century B.C. Minerva inscriptions from Portonaccio outside Veii), the case is clear. But in all other cases the evidence - if any - is difficult to interpret. Especially the interpretation of votive statuettes and architectural decoration poses great problems. The problem with the numerous votive bronze statuettes known from the later 6th century B.C. and onwards is that in almost all cases we do not know the provenance/the find context, such as the many statuettes of Heracle and Aplu. In the few cases where a context is known other problems arise: does a statuette of e.g. Heracle signify a Heracle cult? In the case of a single statuette I find such an identification problematic. On the other hand in a case like the newly excavated temple at San Antonio at Cerveteri (though not published yet) the many finds of clubs and Heracle statuettes (together with votive inscriptions to Heracle) show that the temple was dedicated to Heracle (though not necessarily to him alone).

Another problem is the significance of gods/deities used on architectural terracottas. As I have discussed above architectural terracottas in the second half of the 6th century B.C. must be considered mere decoration without the symbolic significance as earlier.<sup>805</sup> Thus the numerous antefixes (such as gorgons, female heads (maenads?), Acheloos, satyrs) hardly signify temples to these deities. But what about the so-called Juno Sospita antefixes and the large terracotta statue akroteria from Portonaccio - do they signify a cult to Juno Sospita/Apollon, Hercules and Leto? Until more evidence from excavations have been published this problem cannot be solved.

In *Diagrams 14-15* can be seen the evidence for gods that we possess. It should of course be remembered that they only show the evidence from monumentalized sanctuaries. The - admittedly meagre - evidence we possess suggests goddesses more often than gods were worshipped in sanctuaries. Regarding Etruria the most common goddesses were Uni and Vei, but other goddesses are closely related, such as Eileithyia and Mater Matuta. They all seem to be connected to some kind of fertility cult. Inscriptions to Artumes as well as to Turan are also known. The remaining goddesses are only known through a single inscription. Some sanctuaries seem to have been dedicated only to one goddess, while other sanctuaries seem to have been dedicated to several goddesses such as the Etruscan phase of the Gravisca sanctuary with dedications to Uni, Vei, and Turan. A bucchero fragment found at Veii has dedications both to Aritimi (Artemis) and Turan.<sup>806</sup> We have no evidence for triads such as they are known from Latium (see below) and there is no evidence that a temple with three cellae was dedicated to three gods/goddesses.<sup>807</sup> Most, if not all, sanctuaries were dedicated to goddesses. With the exception of the sanctuary of Voltumna (which may also have been dedicated to

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<sup>804</sup> For gods in Etruria see L. Ross Taylor, *Local cults in Etruria*, *MAAR* 2, 1923; Pfiffig 1975; Richardson 1976.

<sup>805</sup> Damgaard Andersen 1992-1993.

<sup>806</sup> Richardson 1964, 337-338 (with further references).

<sup>807</sup> As e.g. suggested by A. Aveni & G. Romano, 'Orientazioni di templi e rituali etruschi', *RdA* 18, 1994, 62.

one or more goddesses) we have only the preliminarily excavated (and not published) excavation at San Antonio at Cerveteri, where the evidence suggests a temple to Heracle. A number of Heracle statuettes, dating from the Late Archaic period, are known, but they are mostly without context and specific sanctuaries to Heracle cannot be reconstructed from this evidence. From Civita Castellana, Vignale, a single inscription attests to an Apollo cult from c. 500 B.C., but other gods and/or goddesses may also have been worshipped here. Otherwise, we have no evidence of a temple dedicated to a male deity or god alone. Dedications to male deities or gods are always found in connection with dedication to goddesses. Apollo was worshipped at Pyrgi, *Area Sud*, together with Cavatha (Vei/Demeter). This can be seen from the inscriptions to Suri or Rath, identified by Colonna as Aplu/Apollo.<sup>808</sup> Inscriptions with Aplu are not known in any Etruscan sanctuary before the 3rd century B.C. Tinia may have been worshipped in Pyrgi, Area C, between temple A and B, and a Tina inscription was found at Roselle (though it is uncertain if it relates to Tinia). Statuettes of Tinia are known from the Late Archaic period, but they are all without context.<sup>809</sup> The Belvedere sanctuary at Orvieto is usually regarded as a Tinia sanctuary, but the evidence for this is late. Other statuettes of gods include Turms, also without context and from the same period.<sup>810</sup> The large Oltos kylix in Tarquinia has an inscription to the Dioscuri (*Tinas cliniaras*, i.e. the sons of Zeus), but this cannot be connected to any sanctuary.<sup>811</sup>

Cristofani has argued that only in Pyrgi, Area C in between temple A and B, dedicated to Tinia, have we evidence for smaller temples/sanctuaries within a larger sanctuary.<sup>812</sup> It is questionable if this is so different from other sanctuaries with dedications to more than one goddess, except that in these cases we do not know who the "main" goddess was.

It is tempting to see gods and male deities in a primary role as consorts, not as singularly important deities. Perhaps this is why Herakles/Heracle was so popular in Etruria - acting as a consort like the Phoenician Melquart.

Votive statuettes, on the other hand, are both male and female, but it is uncertain whether the gender of the statuette mirror the gender of the worshipper or of the deity, unless the statuettes have attributes clearly signifying them as representing a deity (such as e.g. Heracle). Many statuettes, however, only show simple female figurines, some carrying children (signifying a human or a deity?) or e.g. warriors.

Oracles are known from three Etruscan sanctuaries.<sup>813</sup> According to literary sources oracles were located at Cerveteri (Livy 21.62.5, relating events in 218 B.C.) and at Falerii Novi (Livy 22.1.11, relating to events in 217 B.C. and Plut. *Fab.* 2.2). The third, the oracle of Tethys (Plut. *Rom.* 2.4),

<sup>808</sup> G. Colonna, 'Apollon, les étrusques et Lipari', *MEFRA* 96, 1984, 557-574; G. Colonna, 'Note preliminare sui culti del santuario di Portonaccio a Veio', *SciAnt* 1, 1987, 433.

<sup>809</sup> Richardson 1964, 338, 356-359.

<sup>810</sup> Richardson 1964, 359-360.

<sup>811</sup> Richardson 1964, 338 (with further references).

<sup>812</sup> M. Cristofani, 'Ripensando Pyrgi', *Miscellanea ceretana* I, *QArchEtr* 17, 1989, 91.

<sup>813</sup> For oracles seen Pfiffig 1975, 153-155; Edlund 1987, 128.

cannot be located, but both Pyrgi and Punta delle Vipera has been suggested.<sup>814</sup> While the examples from Cerveteri and Falerii are both late, the Tethys oracle is supposed to date to the time of Romulus. The Portonaccio temple at Veii has also been suggested to have had an oracular function.<sup>815</sup> How this evidence is to be connected to the worship of the specific deities is uncertain.

Unfortunately the evidence is too meagre to draw any conclusions as to what type of deity was worshipped at what kind of sanctuary.<sup>816</sup> Nothing in the evidence, however, suggests that specific deities were worshipped in specific kinds of sanctuaries, but rather that they could be worshipped in all types of sanctuaries. Veii is e.g. worshipped both in cemeteries (Cannicella), emporium sanctuaries (Pyrgi, *Area Sud* and Gravisca) and in "basic" urban sanctuaries (Veii, Località Campetti).

At "political" sanctuaries we have only evidence for Voltumna (i.e. Velthumnae/Velthumana) and Feronia. While we have no other evidence for Voltumna sanctuaries, Feronia sanctuaries were fairly common in Latium judging from literary sources.

In Latium the picture is similar. Here goddesses also prevail, especially Mater Matuta and Minerva (thus goddesses very close to the most important Etruscan goddesses). Temple dedicated solely to male deities are only known from Rome, the temple of Castor and Pollux. However, it must be remembered that numerous literary sources mention early sanctuaries to Jupiter (e.g. Jupiter Latiaris) and other gods/deities such as Hercules, but so far these have not been found or they were not monumentalized. Triads are common such as Jupiter, Juno, Minerva on the Capitol and Ceres, Liber and Libera, and they must be considered a Latial phenomenon, unknown in Etruria. Servius' statement (*ad Aen.* I.422) that every Etruscan town should have three temples, dedicated to Jupiter, Juno, and Minerva must be a misinterpretation of the Latial triad.

As we saw above several statues of male deities are mentioned in the literary sources (Jupiter, Hercules, Saturnus).

### **The development of the Etruscan temple<sup>817</sup>**

The development of the Etruscan temple has been widely discussed.<sup>818</sup> Etruscan temples are supposed to emerge in the late 7th/early 6th centuries B.C., but the evidence for this early development is meagre.<sup>819</sup> One exception, however, is the recently excavated sanctuary at Tarquinia with its "Near

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<sup>814</sup> Tethys is the daughter of Uranos and Ge, and has been interpreted as a mother goddess (Pfiffig 1975, 154).

<sup>815</sup> Torelli 1984, 169; Edlund 1987, 66.

<sup>816</sup> For a discussion of which gods were worshipped at the different types of Greek sanctuaries see de Polignac 1995, 25-31.

<sup>817</sup> In most discussions of the development of Central Italic temples the Etruscan and Latial temples are discussed together (e.g. Rendeli 1989; Glinister 1997). This, I think, gives a wrong impression of the development, since the temple seems to develop quite differently in the two areas.

<sup>818</sup> Andr n 1940; Andr n 1959-60; G. Colonna in *Santuari d'Etruria* 1985; Rowe 1989, 112-134; Mambella 1982.

<sup>819</sup> As also concluded by Rowe 1989, 112-134. Note, however, that he in his discussion of the early Etruscan

Eastern" building (Building Beta) with continuous cult dating back to the Late Bronze Age and with a monumental enclosure in the 8th century B.C. and a monumental stone building, Building Beta, dated to the early 7th century B.C. (*Figs. B181-B191*). This sanctuary differs remarkably from all other Etruscan sanctuaries because of its Near Eastern/Phoenician building technique and layout/plan.

Otherwise, the earliest known temple in Etruria is the temple at Gravisca, dating back to the late 7th century B.C. (probably a hut) and monumentalized in 580 B.C. (*Fig. B53, Fig. B55, and Fig. B57*). This temple is, however, Greek, not Etruscan. It has been argued that not before 510 B.C. can this sanctuary be regarded as Etruscan, judging from the finds, but the presence of Etruscan votive inscriptions from 560 B.C. at least suggests an important Etruscan element. It is significant that these two temples were not decorated with architectural terracottas, as were all other temples.<sup>820</sup>

Many scholars usually focus on two temples, namely the so-called *oikos* at Piazza d'Armi at Veii (*Fig. B210*), and the remains at Poggio Buco. Regarding the remains of the *oikos* no convincing evidence for a temple identification has been put forward (see the appendix and the discussion above on votive deposits).

The other candidate for an early temple is the Archaic building at Poggio Buco, which was identified as a temple by the excavator.<sup>821</sup> No conclusive evidence for this identification was brought forward (see the appendix). Even though votives (figurines, vases, etc.) were found, they all seem to belong to the Hellenistic period, even if Pellegrini mentions (but not illustrate) Archaic statuettes.<sup>822</sup> Only for the second period (3rd - 1st centuries B.C.) does the identification as a temple seem reasonably due to finds of votive offerings.

Previously, another candidate was put forward, namely the supposed early temple at Bolsena, Poggio Casetta,<sup>823</sup> but the temple has now been shown by Colonna to date from the Hellenistic period, and can thus be left out of this discussion.<sup>824</sup>

The early temple or shrine at Celle, Civita Castellana (*Figs. B42-B43*), should also be considered (see above), but a single tufa head, the date of which is disputed and which may be as late as the late

temples does not discuss Tarquinia, Pian di Civita, Poggio Buco, and Gravisca, nor does he include any of the finds from Latium.

<sup>820</sup> No architectural terracottas were found at Gravisca (a few, however, were found 200 m away, but it is uncertain to which building they belonged). Even if these decorated the sanctuary at Gravisca it did not have architectural terracottas in its earliest phase. Tarquinia, Pian di Civita: few architectural terracottas were found, but it is uncertain what they decorated. Pyrgi, Building Gamma is uncertain (no architectural terracottas are mentioned in connection to this building, but if Building Beta is no longer considered Archaic one must assume that the Late Archaic architectural terracottas found in *Area Sud* decorated Building Gamma).

Regarding Latium we have no evidence of architectural terracottas in a number of cases, but this is mainly due to badly preserved remains or preliminary excavations/publications (Lavinium, the building beneath the later temple A and Rome, the Palatine, Building N).

<sup>821</sup> Pellegrini 1898, 431.

<sup>822</sup> Pellegrini 1898, 439 mentions Archaic statuettes and animals, but none of these are illustrated (see further the appendix).

<sup>823</sup> As e.g. emphasized by Andr n 1959-60, 51 or Bo thius 1978, 35, fig. 20.

<sup>824</sup> G. Colonna *et al.*, 'Il santuario di Pyrgi alla luce delle recenti scoperte', *StEtr* 33, 1965, 200 n. 19. See also Rowe 1989, 113-114.

6th century B.C., hardly suffice as evidence for a cult statue, let alone a temple around the mid-6th century B.C. The date of the temple is uncertain, but the architectural terracottas suggest a date in the Late Archaic period.

Colonna and others have suggested that *Casa del recinto* at Roselle (Figs. B137-B138), dated to the second quarter of 7th century B.C., should be interpreted as a Vesta sanctuary. The function of the building is not clear, but the domestic finds imply that it was used for habitation, but the curious shape and the large enclosure also make it possible that it had some public function, perhaps similar to a "palazzo" (see above).

Finally the many finds of architectural terracottas belonging to a period prior to the temples should be considered, e.g. the architectural terracottas found at Pyrgi: one antefix dating to the first half of the 6th century B.C. and several architectural terracottas dating to the second half of the 6th century B.C., mostly to 530 B.C. To what building these terracottas belonged is not known, and of course they may have originated from a temple not yet found or not preserved. If temples existed in the first half of the 6th century B.C. in Etruria, we thus know next to nothing of what they looked like. However, considering the many temples known from the late 6th century B.C. in Etruria, it would be surprising that we have not yet found evidence of earlier temples if they existed. The terracottas found in the later sanctuaries need not have decorated temples, but may have belonged to any type of building.

Besides the sanctuary at Tarquinia, which may be considered an early attempt to make a "Near Eastern sanctuary", the first securely identified Etruscan temples thus emerge around the mid-6th century B.C. with the first temple at Ara della Regina at Tarquinia (Figs. B192-B194). The temple at Punta della Vipera/Santa Marinella (Fig. B118) may be almost as early, since it is dated to 540-530 B.C. The earlier remains found beneath temple A at Veii, Portonaccio, may also have belonged to a temple (possibly dated to 540/30 B.C. because of Velletri type friezes).

Etruscan temples, however, do not become common until the late 6th century B.C., e.g. the temple B at Pyrgi (Figs. B120-B125); Veii, Portonaccio (Figs. B224-B229); Orvieto (Belvedere) (Figs. B99-B100), Civita Castellana (Celle) (Figs. B42-B43), Marzabotto (temple A and C) (Figs. B73-B74) (see further *Diagrams 7 and 9*). The most common type of building in this period is in fact temples. No specific type can be seen (see *Diagram 9 and Plan 6*), since the ground-plan differs (see further below).

The Etruscan temples are thus located both along the coast and in the inland (Fig. 144). Rendeli has claimed that there are no signs of cult in the inland of southern Etruria, and he considers these inland sites to be small (less than 15 ha.),<sup>825</sup> but as can be seen from Fig. 144 examples of inland cults are known both from Southern Etruria and Northern Etruria.<sup>826</sup> All Etruscan sanctuaries were located in

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<sup>825</sup> Rendeli 1989, 62.

<sup>826</sup> At least Acquarossa seems to be larger, approximately 32 ha. and probably even larger considering the evidence from the test trenches at Pian del Sale. It should also be remembered that in many cases we do not know the extent of the town/city.

larger sites (with the exception of extra-urban sanctuaries (e.g. Punta della Vipera) and possibly also rural sanctuaries (Sasso di Furbara)).

### **The development of the Latial temple**

As opposed to Etruria literary sources for Latium, especially for Rome, have to be considered. Besides the obvious problems of the texts as being late and biased, terminology further increases the problem, since it is not always clear whether an open sanctuary (without buildings) or a sanctuary with a temple is meant (see the discussion on ancient terms above), and that a temple is vowed does not necessarily mean that it was actually built, at least not until much later. Written evidence of such early temples is thus of very little value, and for the later Archaic period they are only valuable, either if the archaeological material can confirm its existence, or if the sources are very clear.

Livy (1.10.5-7) mentions that the first temple in Rome according to tradition was a sacred precinct on the Capitoline, dedicated to Jupiter Feretrius by Romulus. Livy uses the term *templum*, which seems to mean both a temple and a sacred place. Varro (*Antiquitates rerum divinarum* I. fr. 38)) also states that no temples existed until 170 years after the foundation of Rome, i.e. 584 B.C. (*Nondum tamen aut simulacris aut templis res divina apud Romanos constabat. Frugi religio et pauperes ritus et nulla Capitolia ... sed temporaria de caespite altaria et vasa adhuc Samia ... nondum enim tunc ingenia Graecorum atque Tuscorum fingendis simulacris inundaverunt*).

Colonna has argued that the Capitoline temple should be dated to Tarquinius Priscus, that is c. 580 B.C., and not to the Late Archaic period.<sup>827</sup> This I do not find likely since no trace of such an early temple has been found. It is more likely that the temple was vowed by Tarquinius Priscus, the building begun during the reign of Tarquinius Superbus, and dedicated in the Late Archaic period, as stated by Dion. Hal. According to many literary sources Servius Tullius (in the mid-6th century B.C.) built a number of temples for Fortuna, one of which may have been the S. Omobono temple (see above). For the Late Archaic temples, such as the temple of Castor and Pollux, the literary sources are abundant.

Regarding the earliest temples our evidence has to be based solely on the archaeological material (*Diagram 10*). It is usually claimed that the earliest temple in Latium is in Satricum. Above the 7th century B.C. hut with a partially sacred function several phases of a temple were found, the earliest of which, the simple small one-room building, the *oikos* (*Figs. B336 and Figs. B338-B339*), is traditionally dated to 650-600 B.C. However, Maaskant-Kleibrink has recently convincingly argued that the *oikos* must be contemporary with the other *oikoi* on the site, and thus date to the early 6th century B.C. The *oikos* was probably decorated with architectural terracottas at a later stage, around 540 B.C.

Besides Satricum the earliest known temples are from Gabii (the eastern sanctuary) and Rome (S. Omobono). At Gabii a small simple one-room building with several phases, dating from c. 580-570

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<sup>827</sup> Colonna 1981. See also the discussion on cult statues above.

B.C., has been identified as a temple because of a votive deposit, testifying to a cult-continuity from the 7th century B.C. to the Republican period (*Fig. B277*). Still within the first half of the 6th century B.C. this temple was rebuilt, but now smaller.

The other early temple is the temple at S. Omobono, probably dated to the early 6th century B.C. (*Figs. B323-B324*) with a later phase in 540-530 B.C. This was most likely also a simple small one-room building. Both these temples were decorated with architectural terracottas.

Thus temples in Latium date from the early 6th century B.C. onwards, thus c. 50 years earlier than in Etruria (with the exception of Tarquinia, Pian di Civita).

Besides these early temples, a few temples are known from c. 540-530 B.C. These consist of the second phase of S. Omobono in Rome (*Figs. B325-B326*); Satricum, temple I (*Figs. B338-B330*); and Velletri, phase 1(?) (*Figs. B355-B356*). Like in Etruria, however, temples do not become common until the late 6th century B.C. From this period temples are widely known, e.g. in Rome (Capitol (*Fig. B300*) and Castor and Pollux) (*Figs. B314-B315*), Velletri phase 2 (*Figs. B355-B356*), Ardea, the acropolis (*Figs. B254-B255*), Satricum, temple II (*Figs. B338-B338 and Fig. B344*), and Lanuvium (*Fig. B279*).

The Latial temples were located both along the coast and inland (*Fig. 144*). They are all located in fairly large sites, between 25-80 ha., as has also been pointed out by Rendeli.<sup>828</sup>

Thus it is clear that with the exception of the "eastern" temple at Tarquinia, temples in Latium are much earlier than in Etruria, dating from the early 6th century B.C. Around 540-30 B.C. the number of temples slightly increases and in 520-510 B.C. a large number - just as in Etruria - is found. In Campania Etruscan temples are mostly late, dating from the late 6th century B.C. onwards. It is possible that the reason for temples being earlier in Latium than in Etruria is to be sought in the closeness to the Greeks in Southern Italy.

Thus to speak about the Tuscan or "Etrusco-Italic" temples is misleading - perhaps a term like Central-Italic temples would fit better.<sup>829</sup>

Especially in Latium there seem to have been a "temple-competition" for building larger and grander temples. This can be seen in the many short-lived phases of the sanctuaries, especially in Satricum.<sup>830</sup> In Etruria the picture is less clear: some sanctuaries build new temples next to the old ones (Pyrgi), while other temples are rebuilt, mostly in the 4th century B.C. or later.

## RECONSTRUCTION OF THE ARCHAIC ETRUSCAN AND LATIAL TEMPLES

<sup>828</sup> Rendeli 1989, 62.

<sup>829</sup> Rowe (1989, 1-2) discusses terminology for these temples, and suggests Etruscan, colonial Etruscan (e.g. Marzabotto), Etrusco-Faliscan, Etrusco-Latin (temples in Rome and Latium before 510 B.C.), and Roman (temples constructed by the Romans after 510 B.C.). Even though there are differences, they are not of a kind that make it convenient to construct these many terms.

<sup>830</sup> For a discussion of this see also Rendeli 1989, 65; Smith 1996, 187-188.

Only little evidence can be gained from the models and depictions of Etruscan buildings regarding the reconstruction of the temples, and none of course from the tombs. The only - more or less certain - temple models are the podium model from Chiusi (cat. no. 84) (*Fig. A78*) and the one from Portonaccio at Veii (cat. no. 82) (*Fig. A76*). Several models give evidence to the placement of architectural terracottas and other architectural features, but this evidence is not restricted to temples alone. Thus, the reconstruction of the temples has to be based on the archeological remains of the temples.

While some temple foundations/podiums are fairly well preserved since they were always made of stone, others only preserve part of the ground-plan.

Based on the foundations the following types of ground-plans were used (*Plan 6*).<sup>831</sup>

- one small simple cella, probably without columns in front. The cella is slightly elongated.
- one cella and an anteroom/porch
- one cella, elongated, and peripteral.
- a temple with colonnades on the front and on the flanks, but a closed rear wall. This type is often referred to as *peripteros sine postico*, but Ganzert has rightly rejected this term.<sup>832</sup> The cella could be either one cella or three cellae/one cella and two *alae*. This type is known only in Latium, the Capitoline temple in Rome, dated to 510 B.C., and in Satricum (temple I), dated to around the mid-6th century B.C. The plan of these two temples is similar, except that the Capitoline temple had a three cellae arrangement, Satricum one cella. Knoop has suggested that this type originated in Campania, though there is no evidence for this.<sup>833</sup>
- a square temple with columns in front, usually with three cellae (or one cella and two *alae*), even if the inner reconstruction in many cases is difficult. This type is divided into a front and a rear part. The front part or pronaos is open with either columns or the side walls extend either to the front or half way to the front.<sup>834</sup>
- a complex ground-plan with more than one room.

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<sup>831</sup> Other types have been suggested: Boëthius 1978, 41-42: 1. temples with three cellas, as Vitruvius prescribe; 2. with three cellas and *alae*; and 3: temples with one cella and open *alae* or closed corridors.

Mambella 1982, 35: 1. *ad unica cella* (for this he refers to Piazza d'Armi); 2. *all'aperto entro recinto* (with reference to Poggio Casetta, dated to the 3rd century B.C.); 3. *dalle lunghe "antae" nel pronao* (with reference to the Hellenistic temple at Fiesole, which may have had three cellae); 4. *peripteros* (Pyrgi temple B).

Pianu 1985, 293: 1. one cella; 2. three cellae; 3. one cella and two *alae*.

Rowe 1989, 112-145: 1. the peripteral temple; 2. the distyl in-antis temple; 3. *peripteros sine postico*.

Prayon 1993a, 187: 1. a Greek type as on *oikos* or a megaron, without *peristasis*; 2. an Etrusco-Italic/Tuscan type with three cellae.

<sup>832</sup> The term was suggested by Castagnoli 1955 and has been used by a number of scholars, e.g. Rowe 1989, 144-145. J. Ganzert, 'Zweimal zur Vitruv-Interpretation', *OpRom* 18, 1990, 107-114 has maintained that this term is not to be found in Vitruvius nor in any other ancient literary source, but is an invention by Castagnoli 1955. Ganzert argues that Roman temples should not be described in Greek terms and especially not in terms including *sine*.

<sup>833</sup> Knoop 1987, 215.



Type	Etruria	Latium
one small simple cella, prob. no columns; slightly elongated cella	Civ. Cast. Celle; Cerveteri Val. Zuc.; Marzabotto Springsanc.; Pyrgi Gamma	Gabii east sanc.; Lanuvium (?); Rome S. Omobono (both phases); Satricum <i>oikos</i>
one cella and an anteroom/porch	Gravisca, phase I (though 2 porches), Tarquinia Ara Reg., phase 1; Tarq. Building Beta (earlier phase); Punta d. Vipera	Satricum SW area, phase 1
one elongated cella, peripteral	Pyrgi temple B	Satricum temple II
colonades on the front and on the flanks, but a closed rear wall - either one or three cellae		Rome, Capitol Satricum, temple I
a square temple, columns, three cellae or one cella and two <i>alae</i>	Cer. Vig. Parrocch.; Cer. S. Antonio (2); Marzabotto C; Orvieto, Belvedere; Pyrgi temple A; Tarq. Ara d. Reg phase 2; Veii, Portonaccio; Vulci, Fontanile	Ardea, acropolis Rome Castor & Pollux; Satricum, SW area, phase 2
a complex ground-plan with more than one room	Gravisca phase II; Tarq. Pian Civ. late phase	

<sup>834</sup> The temple at Marzabotto, regio II,5 (not yet excavated), is claimed to have had only two cellae.

From this it is clear that the earliest temples in Latium are simple one cella constructions. Though the evidence is scarce, nothing suggests that the early phase of the temple at S. Omobono should have been otherwise. No evidence regarding columns has been found, but since both Gabii, Satricum, and S. Omobono have later phases, columns cannot be excluded. This one-cella type emerges in the early 6th century B.C. and continues throughout the 6th century B.C.

Tarquinia, Pian di Civita, had a single room and an anteroom in its earliest phase as Ara della Regina.

The ground-plan of temples around 540-530 B.C. is uncertain. Simple one-room constructions seem most likely, even if several three-cella plans have been suggested.

In the Late Archaic period a number of different ground-plans are used. The rectangular or almost square temple with columns in front and often three cellae or one cella and two *alae* is the most common type. The type became common in Latium and Etruria around 510 B.C., but the earliest definite example of one cella and two *alae* is Tarquinia, Ara della Regina, phase II, dated to 530 B.C., while three-cella temples are seen in the Capitoline temple in Rome and Veii, Portonaccio, both dated to 510-500 B.C. The peripteral temple in Etruria and Latium is rare in the Archaic period, the first being Pyrgi temple B, dated to 510 B.C. and Satricum, temple II, dated to c. 500 B.C. The so-called *peripteros sine postico* type is only known from two examples in Latium: the Capitoline temple in Rome, dated to 510 B.C., and temple I in Satricum, dated to the mid-6th century B.C. The type, however, becomes popular in later Latial temples.<sup>835</sup> Complex ground-plans are known from Tarquini, Pian di Civita and Gravisca, phase II.

Even if the Central-Italic temples roughly can be divided into these six types, all temples have a great deal in common: most of them are placed on podiums, all have a marked frontality (though less marked in the case of the peripteral temples), often with columns in front, and all have a closed posterior. The columns usually have relatively wide intercolumniations.

The size of the temples varies a great deal (*Diagrams 9-10 and Plan 6*). The earliest temples are usually small, less than 150 m<sup>2</sup>.<sup>836</sup> Between 550 and 530 B.C. temples become larger, up to 1100 m<sup>2</sup>. In the Late Archaic period temples are of the same size, though more larger temples are seen now. One temple is extremely large, the Capitoline temple (more than 3000 m<sup>2</sup>). Temples from the Classical and Hellenistic period in Etruria are also much larger than the Archaic ones.

The orientation of the temples varies and there is no specific temple orientation (*Diagrams 9-10 and Plan 6*). Archaic temples could be oriented anywhere between W and E, even towards the NW. The orientation seems to be based of the topography of the landscape and the lay-out of the sanctuary, though religious beliefs could also have played a role.<sup>837</sup>

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<sup>835</sup> Prayon 1986, pl. V.43.

<sup>836</sup> Rendeli 1989, esp. figs. 1-2.

<sup>837</sup> See also above (the discussion of the ground-plan of temples).

Regarding the construction it can be inferred that a large number of temples had deep podiums, built mostly by tufa blocks, except in the case of Marzabotto where tufa was not available, thus rounded river stones were used. These podiums were either solid or with foundation walls with a fill in between of tufa chips and clay. These foundations were resting either on footings of clay or stone chips or bedrock. In a few cases a *crepidoma* in the Greek style constituted the basis (Pyrgi temple B) and in a few cases we have evidence of exterior mouldings (Pyrgi temple A and Orvieto, Belvedere).

In some cases the outer walls also were stone walls, such as the temples at Pyrgi, but many outer walls must have been of mudbrick with a timber frame construction with vertical and horizontal beams. Interior walls seem to have been of mudbrick, as can be seen in the Pyrgi temples, but they could of course also have been of wood. Both exterior and interior walls may have been coated with plaster and painted.

The columns were either stone (e.g. Orvieto, Belvedere and temple A and B, Pyrgi) or wood, sometimes encased in terracotta (e.g. S. Omobono in Rome).

The floor was beaten earth, often with tufa flakes (in fact the upper layer of the fill in the cavities between the foundations) or in a few cases stone slabs (the temple of Castor and Pollux in Rome).

The reconstruction of the roof is based on the preserved terracotta parts (tiles and architectural terracottas) as well as on models (such as the one from Veii, cat. no. 82) (*Fig. A76*). The tiled roof was always two-faced, resting on a woodwork construction (see chapter 4). The pitch of the roof was low, judging from the remains of roofs, between 12° and 20°. It is difficult to estimate the overhang on most temples. It is often assumed that it was wide to protect the mudbrick walls, but as we have seen at least a number of temples had stone walls, not mudbrick walls, in which case wide eaves would not be needed. Most gables must have been recessed, either plain or with a terracotta decoration (antepagmenta plaques such as Pyrgi). Pediment sculptures, such as they are known from the small building at Cerveteri, Vigna Marini Vitalini, the function of which is unknown,<sup>838</sup> or plaques with reliefs covering the gable such as Rome, S. Omobono, phase 1, are rare. Almost all temples seem to have been decorated with architectural terracottas, the ones from the Late Archaic period abundantly: akroteria (sometimes in the shape of live-size statues such as the Portonaccio temple), antepagmenta (from small simple ones to large plaques with mythological scenes (such as the Seven against Thebes at Pyrgi)), antefixes (often large and with *nimbus*), simas, and all sorts of revetment plaques (mostly with floral or ornamental design). Several attempts at reconstructions have been made, mostly of Pyrgi, temple B (which is perhaps the most atypical Etruscan temple since it is peripteral) and Pyrgi temple A (*Figs. B125 and 130*) and Veii, Portonaccio (*Fig. B227*). These reconstructions seem fairly sound, except for details regarding the woodwork of the roof (see chapter 4).

## CIVIC BUILDINGS

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<sup>838</sup> See the appendix.

Unfortunately, very little can be said about civic buildings in Etruria (*Diagram 13, Fig. 149, and Plan 10*). We do know, however, from literary sources, that several magistrates existed (from the 6th century B.C. onwards) which has led scholars to assume that civic buildings existed.

Several buildings have been suggested as houses for magistrates or civic buildings, such as Acquarossa, zone F, Building A-C (*Fig. B12 and Figs. B15-B18*); Murlo, the Upper Building (*Figs. B92 and Figs. B94-B95*); Roselle, *Casa a due vani* (*Fig. B137 and Fig. B144*) and *Casa del recinto* (*Figs. B137-B138*). No evidence in fact supports such an identification. Acquarossa and Murlo I regard as "*palazzi*" (see above), while *Casa a due vani* at Roselle seems to be an ordinary domestic house. *Casa del recinto* at Roselle is more problematic (see the discussion on "*palazzi*" above).

At Cerveteri, Vigna Parrocchiale, the elliptical building surrounded by a pavement was suggested by Cristofani to have been a civic/public building or enclosure (*Figs. B31-B33*). The building is dated to the late 6th century B.C. The shape may indicate a kind of meeting ground, but the precise nature is obscure. We have no parallels for this building.

For Latium we have evidence of the Curia Hostilia from the Comitium in Rome. This is the only known building that can be securely identified as a civic building. According to Coarelli it can be related to the first pavement of the Comitium, dated to the late 7th or early 6th century B.C.<sup>839</sup> A pit containing Archaic tiles, probably belonging to the Curia Hostilia, was uncovered by Boni. Otherwise, no details of the building are known. Even though early architectural terracottas have been found at the Comitium, none can securely be ascribed to any buildings. However, such buildings would probably have been decorated with architectural terracottas. Whether this evidence can be transferred to Etruria is, however, questionably.

For Rome we have evidence of magistrates from the first consuls in 509 B.C.

Like in Rome, temples and sanctuaries may also have been used for political meetings and administration (see above), and many political affairs have been dealt with at the home of the magistrate.

Thus we have no securely identified civic building in Etruria, and it is not even certain that such buildings existed at all. Even if we have evidence of Etruscan magistrates, such as *zilath* from the 6th century B.C. onwards, they need not have exercised their office from a specific building. In fact the "*palazzi*" may have functioned as civic buildings.

## DOMESTIC BUILDINGS

A domestic building may be defined as a dwelling with one or more rooms, used by a family.<sup>840</sup> Most of these buildings seem to have been used solely for habitation, but in a few cases we have evidence of

<sup>839</sup> Coarelli 1983, 122, 129, 140-142.

<sup>840</sup> For Etruscan domestic buildings see A. Gargana, 'La casa etrusca', *Historia. Studi storici* 8, 1934, 204-236; G. Fayer, *Aspetti di vita, Studia acrhologica* 22, Rome 1982, esp. 221-240; *Casa e palazzi d'Etruria* 1985; Camporeale 1986; *Viterbo* 1986.

O. Doonan has written a dissertation on the social development of the Italic house, but this I have not been able to get (a short summary is presented in *AJA* 99, 1995, 351-352).

production/trade/stables. Sheffer has suggested that one family may have used more than one building, considering how small the buildings were, i.e. one house for living in and one for stables, storerooms etc.

I use the term domestic building about urban houses, while domestic buildings in the country are referred to as farm houses (see below). Domestic buildings can be either houses or huts. As is the case for all types of buildings, domestic buildings are not easily defined. The criteria for a domestic building are: domestic pottery, hearths (or braziers), and remains of domestic activities such as spinning and weaving implements,<sup>841</sup> in a few cases also stables. The ground-plan/technique of the building may sometimes also suggest a domestic function (such as a small size with few rooms, a courtyard, a "simple" building, beaten earth floor, etc., but all these characteristics are also found within other types of buildings). The location of a building may also sometimes be used as a criterion (e.g. a number of buildings of the same type next to each other suggest a domestic function). A large number of buildings within a town alone secure an identification of these (or at least a large number of them) as domestic buildings. In Latium infants and small children are often buried under the floor or just outside the houses, and this may also suggest a domestic function of a building. Unfortunately this evidence is not always conclusive as we have seen, especially in the case of buildings with an integrated domestic and sacred function. In fact domestic buildings are often identified as such *because* we lack evidence of a sacred character.

Especially in recent years many publications have discussed the nature of the house/domestic building, primarily from an etno-archeological/ethnographical point of view.<sup>842</sup>

When reconstructing the domestic houses it must be remembered that both models and the preserved remains of buildings most likely only represent the dwellings of the upper class, and perhaps also of the middle class. How the lower classes lived we have no means of determining.<sup>843</sup>

In Etruscan Italy a large number of domestic buildings have been found within the towns: Acquarossa, Doganella, Lago dell'Accesa, Luni sul Mignone, Marzabotto, Monteriggioni-Campassini, Murlo (?), Poggio Buco (?), Poggio Civitella (?), Pyrgi, Regisvilla, Roselle, San Giovenale, Stigliano, and Veii (Piazza d'Armi, Macchia Grande, the NW-gate) (*Diagrams 7-8, Fig. 151, and Plan 11*).

In Latium they are found at Acqua Acetosa Laurentina, Ardea (Casalinaccio), Casal Brunori, Castel di Decima, Ficana, Fidenae (?), Lavinium, Norba (?), Rome (Via Sacra and the slope of the Palatine), Satricum, and Torrino.

Both in Etruria and Latium they date from the second half of the 7th century B.C. till the Late Archaic period.

For domestic buildings in Latium see Melis & Rathje 1984.

<sup>841</sup> Melis & Rathje 1983, 383.

<sup>842</sup> E.g. Rapoport 1969; J. Carsten & S. Hugh-Jones, *About the House. Lévi-Strauss and beyond*, Cambridge 1995. I do not intend to join this discussion, since my main concern is architecture.

<sup>843</sup> See e.g. A. Boëthius, 'The tomb of the thatched roof at Cerveteri', *OpRom* 6, 1968, 11 on the same problem.

The most important sites are Acquarossa, San Giovenale, L'Ago dell'Accesa, Marzabotto, Roselle, Veii, Ficana, and Lavinium.

Domestic buildings can have many shapes, but I do not believe it is possible - nor fruitful - to try to distinguish a number of types as has been suggested by Maaskant-Kleibrink and others. They suggest that domestic houses in Latium can be divided into *oikoi*, *Breit*-houses, and courtyard houses.<sup>844</sup> This distinction is made without considering the function of the building. Thus for instance the *oikoi* at Satricum and the temple at Gabii, the eastern area, are placed in the same type. I think it is much more fruitful to look at the different types of buildings according to their function.

Some general observations, however, can be made. Huts and early houses with thatched roofs are usually fairly small with one room, in some cases also an anteroom/porch. Such houses can be seen S. Giovenale House IV/The Archaic house on the acropolis, dated to the late 8th century B.C. (*Fig. B3,3*) or San Giovenale, House I on the acropolis (*Fig. B163*). Most of the early houses with a tiled roof (second half of the 7th-first half of the 6th centuries B.C. are also fairly small, with 1-3 rooms. These sometimes had a porch in front (or in the case of the houses from Accesa a stretch of wall to protect the buildings from flood because of the slope). One-room buildings are e.g. found at Lago dell'Accesa, area A, Complex II (*Fig. B61*) or Luni sul Mignone, both Building A and B (*Fig. B71*). In the case of two rooms they are either next to each other (that is with a longitudinal axis and with the entrance on one of the long sides) (e.g. Acquarossa zone B, Building A (*Fig. B5-B7*), Roselle, *Casa C* (*Fig. B148*), or Roselle, *Casa a due vani* (*Figs. B137 and B144*)) (the so-called *Breit*-houses) or one room in front of the other, where the first room functioned as an anteroom (e.g. Veii, Macchia Grande, the eastern house (*Figs. B214-B215*) or Acquarossa, zone C (*Fig. B8*)). In the latter case it is often difficult to determine whether there are two rooms or one room and a more or less closed porch. In the case of three rooms they are usually placed in a row (e.g. Acquarossa zone L, Building A (*Fig. B23*), San Giovenale Acropolis House II (*Fig. B161*), or San Giovenale Borgo House A (*Fig. B3,7*)). In several cases, however, the houses are larger with four or more rooms (e.g. L'Ago dell'Accesa, area A, Complex I, III, IV, VIII, and X) (*Fig. B59*). In almost all cases these are placed in a row.

In Latium a few domestic houses had rooms arranged around a small courtyard such as Acqua Acetosa Laurentina, dated to the second half of the 6th/ the early 5th centuries B.C. (*Fig. B247*) and Torino, dated to the Late Archaic period (*Fig. B354*).

In general courtyards have been located in connection to all different types of domestic buildings. These are often "paved" with a layer of pebbles.

From many of these excavated houses it is clear that they were rebuilt a number of times, either because of fire or in order to make the houses larger. This can e.g. be seen in the houses at L'Ago dell'Accesa.

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<sup>844</sup> Maaskant-Klaibrink 1991, 95-105; E. van 't Lindenhout, 'Architectural and spatial organization of the first towns in the coastal plain of Latium (6th century B.C.). Towards a general scheme', in H. Damgaard Andersen, H.W. Horsnæs, S. Houby-Nielsen & A. Rathje (eds.), *Urbanization in the Mediterranean in the 9th to the 6th*

A comparison between the archaeological remains of houses and the plan of the house-tombs reveal a close connection: thus House I and III at San Giovenale (Figs. B163-B164)<sup>845</sup> are similar in plan to the tombs of Prayon's type B (see chapter 3); Borgo, House A (Fig. B3,7) is similar in plan to the tombs of Prayon's type D (see chapter 3); and House G on the Borgo of San Giovenale (Fig. B3,11)<sup>846</sup> is similar to the tombs of Prayon's type E (see chapter 3).

A few houses are large such as the Late Archaic house at Regisvilla (Fig. B134) and *Casa dell'Impluvium* at Roselle (Figs. B149-B151). Both houses had probably a central room similar to an *atrium*, and in Roselle was an *impluvium/compluvium* construction, possibly also in Regisvilla.

A few large *insulae* buildings also existed, though not in Etruria proper. They are known in Rome, on the slope of the Palatine (even if the reconstruction is uncertain) and at Marzabotto. The *insulae* at Marzabotto consisted of a vestibule with rooms on either side leading to a paved open courtyard with a *compluvium/impluvium* system, also with rooms on all sides (Fig. B77). Smaller buildings were also found (Fig. B78). The houses on the slope of the Palatine may also have had a *compluvium/impluvium* system (Figs. B306-B307).

Finally the so-called courtyard houses should be discussed. These differed remarkably from the previously discussed domestic buildings. They were all organized with a number of rooms in connection to an open area or courtyard, through which all movement must have passed. This is in sharp contrast to the spatial and hierarchy and intricacies of the houses at Marzabotto or Rome (the slope of the Palatine) and possibly also to the *Casa dell'Impluvium* at Roselle.<sup>847</sup> Because of the similarities between these and the evidence that at least some of these had religious connotations (e.g. Montetosto) I group these among the "*palazzi*" (for a discussion of these see above in the section on temples and sanctuaries).

The building technique does not seem to differ much for the domestic buildings. Most have stone foundations (local stones), one or two courses, walls of wattle and daub (especially in the Orientalizing and Early Archaic periods), *pisé* or mudbrick (especially in the later Archaic period). In a few cases they also had stone walls, such as the Borgo in San Giovenale and possibly also on the acropolis of San Giovenale. In Veii, Macchia Grande the houses were built into the tufa slope. The floors were beaten earth. The roofs of the earliest houses were thatched, several with a decoration cut out of the cross pieces, judging from the evidence of the early house urns. In the second half of the 7th century B.C. tiled roofs began to appear on domestic buildings. Some of these employed architectural terracottas, especially in the late 7th/first half of the 6th centuries B.C. (e.g. Acquarossa), but in some cases also in the Late Archaic period (Marzabotto). In the late Archaic period the small number of

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centuries BC, *ActaHyp* 7, 1997, 308-310.

<sup>845</sup> C. Nylander in *Viterbo* 1986, 39, 47, figs. 24, 26, nos. 4, 6.

<sup>846</sup> C. Nylander in *Viterbo* 1986, 50, fig. 26, no. 11.

<sup>847</sup> A. Wallace-Hadrill, 'The social structure of the Roman house', *BSR* 56, 1988, 43-97; Perkins & Attolini 1992, 125.

houses decorated with architectural terracottas suggest that they were probably only used on houses of some status. The fairly large number of house urns representing tiled roofs with a roof decoration imitating architectural terracottas (e.g. from Chiusi) may suggest that such a decoration on domestic buildings was common in the Late Archaic period, even if they have been found only in Marzabotto so far).<sup>848</sup> Regarding the woodwork of the roof this can be reconstructed from the models and the tombs (see chapter 4).

Some scholars have tried to define the function of the various rooms, but this is only possible in a few cases.<sup>849</sup> Gros & Torelli have suggested that the women occupied one room and the men another.<sup>850</sup> In my opinion there is no archaeological evidence to support such a theory. In general the rooms had more than one function, such as can be seen from the farm house at Podere Tartuchino, which suggest that at least in farm houses rooms were used for more than one function (storage/sleeping/production and production/living room) (see below). Camporeale has suggested that the smaller rooms were used for sleeping and the larger rooms for living rooms/eating/cloth-making.<sup>851</sup> Most of the family life must have taken place outdoors most of the year, as in the country of modern Mediterranean countries.

Hearths are known from several houses (e.g. at San Giovenale), but in many houses there are no traces of a hearth, which means that they must have used movable braziers/*fornelli*, such as the terracottas ones found in tombs.<sup>852</sup> Hearths were used for heating, light, and cooking. A hearth is often used as an indication of a kitchen (i.e. a room intended for the preparation and cooking of food). Only few such kitchens have been found.<sup>853</sup> For Etruria Sheffer has argued that indoor kitchens do not seem to have existed. A kitchen, however, has been identified in room II in the affiliated sacred building near the 13 altars at Lavinium (*Figs. B289-B291*). In this case the kitchen was in an isolated room entered from the portico. Besides a hearth was found a dolium partly sunk into the floor. The evidence from Macchia Grande at Veii, the eastern house, may also suggest a kitchen function in one end of the room, since in the northeastern corner (g) of room 2 a fireplace, possibly with a chimney and a smoke board cut into the back wall, was found. This may have been used for cooking, since another hearth was located closer to the centre of the room (h). Two dolia were found *in situ* in the southwestern and southeastern corners (k and i), which further supports a kitchen identification. In Roselle, *Casa dell'Impluvium*, a hearth was found both in room IV, V, and VIII. Of these room VIII is interpreted as a kitchen (a millstone was also found here) (*Fig. B149*). In L'Ago dell'Accesa room III in Structure X

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<sup>848</sup> See chapter 3.

<sup>849</sup> C. Sheffer in *Viterbo* 1986, 109-111.

<sup>850</sup> Gros & Torelli 1988, 36.

<sup>851</sup> Camporeale 1986, 261.

<sup>852</sup> For a discussion of this see Sheffer 1981, esp. 98-103, C. Sheffer in *L'Alimentazione nel mondo antico* 1987, 97.

<sup>853</sup> Sheffer 1981, 93; C. Sheffer in *Viterbo* 1986, 109-11; C. Sheffer in *L'Alimentazione nel mondo antico* 1987, 98. For kitchen/preparation of food in Etruria in general see these works.



(area A) has been identified as a kitchen with other types of female activity also. Room I in complex I (area B) is also interpreted as a kitchen. Precisely what these identifications are based on is uncertain.

Otherwise hearths are not numerous in domestic buildings, neither in Etruria nor Latium. In Etruria they are found at Acquarossa (zone B, Building A, room 5; zone B, Building B, room 3; one in zone D, Building A, room 2; and zone G, Building B, the central room); in several of the houses in San Giovenale; in Stigliano (traces of hearts); and in Veii, Macchia Grande. In Latium hearths are found in Ficana, zone 5b, room A (probably used as a living room/sleeping room); in connection to the Archaic walls (of a building of unknown function) underneath the House of Livia on the Palatine; in Rome, the Regia (phase 1, a hearth in the southern room with *fornelli* found nearby and in the 5th phase a large hearth was located in the western room); and in the house on the Via Sacra (phase 4) a rectangular structure in the southeastern room has been interpreted as a hearth.

Skylight tiles are often considered indications of kitchen/cooking, but nowhere is there any certain connection between these tiles and evidence of cooking.

Cooking mostly seems to have taken place outdoors (as e.g. indicated by the cooking stands of Acquarossa, the majority of which were found outdoor)<sup>854</sup> or in cooking sheds with hearths. A few examples of outdoor kitchens are known, such as Acquarossa zone J, consisting of a cave-like room, cut out of the tufa. In one side was a bench of tufa with a shallow depression, probably a place for a cooking stand.<sup>855</sup> In several places in Acquarossa a niche was cut out of the tufa to protect the outdoor fireplaces from rain and wind.<sup>856</sup> In the vicinity of these cooking stands were found. Also, in Acquarossa examples of depressions in the tufa with traces of burning are found: in the courtyards of zone J and L and in zone F a pit cut into the tufa with remains of carbonized wood was found - this has been interpreted as a pit for roasting whole animals.<sup>857</sup>

Several ovens are also known, though it is uncertain if they were used for baking bread, roasting grain or other kinds of food.<sup>858</sup> Six were found in Acquarossa. Those in zone B and E were placed within the houses or in an area covered by a roof; the one from zone C was placed south of the monumental area, and those in zone H in a courtyard.

Preparation of food is seen on the wall painting of Tomba Golini I at Orvieto, dated to the mid-4th century or third quarter of the 4th century B.C. Here is seen the preparation of food for a dinner/banquet, taking place in the presence of the guests. A brazier and a kind of oven is seen.<sup>859</sup> A similar scene is seen on a cist from Palestrina.<sup>860</sup>

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<sup>854</sup> Sheffer 1981, 97.

<sup>855</sup> Sheffer 1981, 96, fig. 69; C. Sheffer in *L'Alimentazione nel mondo antico* 1987, 98.

<sup>856</sup> C. Sheffer in *Viterbo* 1986, 109; C. Sheffer in *L'Alimentazione nel mondo antico* 1987, 98.

<sup>857</sup> Sheffer 1981, 97; C. Sheffer in *Viterbo* 1986, 111; C. Sheffer in *L'Alimentazione nel mondo antico* 1987, 98.

<sup>858</sup> Sheffer 1981, 108; C. Sheffer in *Viterbo* 1986, 111; C. Sheffer in *L'Alimentazione nel mondo antico* 1987, 101-103.

<sup>859</sup> Sheffer 1981, 93; H. Blank in *L'Alimentazione nel mondo antico* 1987, 107-117; G. Barbieri in *L'Alimentazione nel mondo antico* 1987, 119-122.

<sup>860</sup> G. Barbieri in *L'Alimentazione nel mondo antico* 1987, 121.

In a few houses we have evidence of dining/banquets. The large amount of "banquet service" in the "palazzi" clearly indicates that banquets took place here. In Ficana, zone 5a, a complete banquet equipment was found, dated to the second half of the 7th century B.C., contemporary with the first phase of the building (*Fig. B271*).

A number of supports for benches and madrases have been found, consisting of pebbles placed directly on the bedrock floor, along the walls in a U-shape. The earliest is House IV/the Archaic house in San Giovenale (dated to the late 8th century B.C.) (*Fig. B3,4*). They are also found in San Giovenale House I on the acropolis (phase 1 dated to 675-650 and phase 2 dated to c. 600 B.C.) (*Fig. B163*) and possibly also in house III (*Fig. B161*). A similar kind of bench may have existed in Satricum, hut GR VII.<sup>861</sup>

Such evidence has also been found in the "palazzi" and the funerary building at Castro. At Acquarossa tufa blocks in a U-shape have been found in building C in zone F (dated to the mid-6th century B.C.), interpreted as supports for benches (*Fig. B12*). In Latium such benches are found in Ficana, zone 6a, Building F, dated to the late 7th or early 6th centuries B.C. In San Giovenale, the building near the bridge, the rear room (A) contained a U-shaped bench of tufa blocks and river stone along three walls (*Figs. B170-B171*). In Roselle, *Casa dell'Impluvium* a stone bench was placed next to the hearth in room V (*Figs. B149-B150*). In the building cut out of the tufa in Ischia di Castro benches were cut out of the tufa in the central room (*Figs. B29a-c*).

These pebble benches are all interpreted as supports for madrases, since they are very low (8-10 cm high in San Giovenale, House I on the acropolis). Most scholars interpret these rooms as "dining rooms" because of the benches, but the fact that they are found in the T. della Capanna (*Fig. 49*) may just as well point to an identification as sleeping benches.

In several cases storerooms can be identified. In Acquarossa zone L, Building C, large dolia, a cooking stand, a *bacino*, a fragment of an Etrusco-Corinthian kylix, and a lamp were found, this it is interpreted as a storeroom.<sup>862</sup>

In a few cases stables have been suggested within domestic building in towns. In Acqua Acetosa Laurentina the southwestern room may have been used as a stable, since there were channels along the walls (*Fig. B247*). Another stable is suggested at Acquarossa, Building A, zone G. This seems to have functioned as a combined storeroom and stable. The stable is identified because of a large stone water trough and postholes which suggest stalls. Two large silos were cut out of the tufa, which may also have been related to farming/storage.

At Lago dell'Accesa Complex VII in area B room IV seems to have been used for habitation in the first phase, in the second phase for a stable (it is uncertain what this identification is based on).

Evidence for production can be seen in a number of buildings, mostly spinning and weaving. Considering the large amount of spindle whorls, loomweights, and *rocchetti* found in almost every domestic building they must belong to a domestic production, i.e. solely for the family household.

<sup>861</sup> Maaskant-Kleibrink 1991, 80.

<sup>862</sup> C. Sheffer in *Viterbo* 1986, 109.

Pottery production is more difficult. Kilns are not numerous (see below) and we have no certain evidence that pottery was produced at home. According to the surveyors the evidence from Doganella suggests metal production in domestic buildings, but this seems unlikely (see also below).

At Marzabotto some of the rooms towards the streets seem to have been used as shops (like the later evidence from e.g. Pompeii).

Besides courtyards a number of houses must have had gardens, but very little evidence for this has been preserved. In Acqua Acetosa Laurentina a garden was located behind the courtyard (*Fig. B247*).

The interior of the house tombs must resemble actual houses, and from these tombs we get an idea of the furnishing of the houses with beds, stools, chairs, etc.<sup>863</sup> The interior of the domestic buildings (and in some cases also the exterior) must have been painted, though it is uncertain to what extent the painted tombs in e.g. Tarquinia reflect interior house decoration.

It has been debated whether or not the vestibule/anterrum of the tombs is the forerunner of the later *atrium*.<sup>864</sup> Prayon has in this connection drawn attention to the T. della Ripa at Cerveteri, dated to the mid-6th century B.C. (see chapter 3) (*Figs. 68-69*). This tomb is the first Etrusco-Italic tomb with a complete opening between the vestibule and the central room behind, an arrangement which resembles the later Roman *domus* with *atrium-tablinum* system. This evidence corresponds to the evidence from the *Casa dell'Impluvium* at Roselle, dated to the second half of the 6th century B.C. (*Figs. B149-B152*) and the houses at Marzabotto (*Figs. B77 and Figs. B80-B81*) and possibly also to the houses on the slope of the Palatine in Rome (*Figs. B306-B307*).

Some literary sources maintain that the Roman *atrium* (defined as a room in front of the house) was an Etruscan invention (Festus 5.16; Servius *ad Aen.* 1.726).

In general literary sources on Etruscan domestic buildings are few. Vitruvius (6.3) describes the later Roman domestic house, but does not discuss Etruscan houses. In book 4.7 he claims that Tuscan columns were used in temples, while domestic buildings employed Doric and Ionic columns, but that this is not correct can be seen from the fact that Tuscan columns were used for all types of buildings and tombs (see chapter 4).

Finally the question of development of the huts and houses and the chronology should be discussed. While we have a fairly good knowledge of the Early Iron Age huts and the houses with stone foundations and tiled roofs from the second half of the 7th century B.C. and onwards, we know very little about domestic buildings in the late 8th/first half of the 7th centuries B.C. (see also chapter 2). The only domestic buildings belonging to this period are House IV/the Archaic House, dated to the late 8th/first half of the 7th centuries B.C. and the hut/house I also from the acropolis at San Giovenale, dated to 675-650 B.C. The function of the building beneath the southern flank of the Upper

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<sup>863</sup> F. Prayon, 'L'architettura funeraria etrusca. La situazione attuale delle ricerche e problemi aperti', *Secondo congresso internazionale etrusco*, Firenze 1985, suppl. di *StEtr.*, Rome 1989, 445.

<sup>864</sup> See e.g. A. Boëthius, 'The tomb of the thatched roof at Cerveteri', *OpRom* 6, 1968, 12-13.

Building at Murlo, possibly dated to 675 B.C., and the *Casa del recinto* (and possibly also Building B in the vicinity and the building in square E5) at Roselle, dated to 675-650 B.C. is uncertain, and they may have had a sacred/civic function also. Scholars have found this lack of buildings strange considering the fairly large amount of very rich "princely" tombs from this period (e.g. Palestrina or Cerveteri). Either this must be accidental, i.e. that we have so far just not found any of these buildings (which may be the case - considering how little we knew about domestic architecture in the late 7th/early 6th century B.C. before the excavations of in the 1950s and onwards, especially Acquarossa, San Giovenale, Murlo, and Roselle). The other solution involves chronology. There has been a tendency to date all remains of huts to the Early Iron Age, but the evidence from several recent excavations (especially in Latium) suggests that huts may have been used in the 7th and well into the 6th centuries B.C. on a fairly large scale (Casal Brunori (8th-6th centuries B.C.), Castel di Decima (8th-second half of the 7th century B.C.), Ficana (the huts were used until the first quarter of the 6th century B.C.), Lavinium (8th-first half of the 7th centuries B.C.), Rome, the Regia (late 8th-early 7th centuries B.C. - not suppressed until the late 7th century B.C.), Rome, S. Omobono (huts destroyed in the late 7th century B.C.), Satricum (huts from the Early Iron Age to c. 650 B.C.), Acquarossa (8th century, probably in use till the mid 7th century B.C.), Veii, NW-gate, the *Holzbau* (first half of the 6th century B.C.)). These dates show that huts were still popular in the 7th and first half of the 6th century B.C. and it is possible that the three early houses mentioned above may have had a civic rather than a domestic function, and that everyone, both rich and poor, in the first half of the 7th century B.C. lived in huts - despite the extremely rich tombs.

## FARM HOUSES

Even though there must have been numerous farm houses spread around the countryside of Etruria, very few of these have been registered, not to mention excavated. The recent surveys in Etruria (e.g. in Blera or Tuscania) have shown that such farmhouses existed, but the chronology is often uncertain.

The only well excavated and well published farmhouse is that of Podere Taruchina near Grosseto (*Figs. B104-B109 and Plan 11*), which consists of a simple one room building in its first phase, dated to the second half of the 6th century B.C. The foundations and the walls were of rubble and stones and the roof probably two-faced and tiled. In the second phase (first half of the 5th century B.C.) the building was more than doubled in size by adding extra rooms and a large courtyard. Room A must have been used for storage and possibly also the place of a loom, room B also for storage, while the large hearth and the find of both domestic and fine table ware pottery in room C point to this room as the central living room, a kitchen (evidence of food preparing) as well as a production area. Sleeping areas were probably in room A and E. Thus, the rooms seem to have had more than one function.

The isolated location of the building clearly suggests a farm house. The finds indicate that wine and grain were produced here. No stable building was found, but the large courtyard of phase II would indicate a large number of animals.

Another farm is suggested at Marsiliana d'Albegna, Loc. Pietriccioli.<sup>865</sup>

As we saw above stables are only found in few domestic houses within the towns. In general the few examples of stables are hardly surprising, since the majority of animals were sheep and goats, which were outdoor most of the year and during the winter probably kept in sheds out in the countryside.

Based on these two buildings we can hardly find any common characteristics for farm houses, except that they do not seem to differ much from the domestic buildings within the cities. We have no evidence of farm houses being decorated with architectural terracottas.

## WORKSHOPS

Compared to the enormous amount of artefacts found in Etruria and Latium, especially pottery and tiles, only few workshops (kilns/workshop buildings) have been identified (*Diagrams 7-8, Fig. 152, and Plan 12*). As an example can be mentioned that no trace of Archaic workshop areas or kilns has been found at Acquarossa.<sup>866</sup>

In the Early Iron Age a combination of itinerant craftsmen and home production prevailed. Workshops are identified at a number of sites, such as zone K at Acquarossa.<sup>867</sup> Regarding the 7th century B.C. the first more substantial remains of workshops have been identified. Workshops must have been very numerous in Etruria and Latium, especially in the 6th century onwards.<sup>868</sup> So far, however, only few have been identified. Most workshops are only attested through kilns and debris, and no buildings, such as Selvasecco, 6 km west of Blera, where remains of a workshop (moulds, basins, and possible traces of a kiln) producing tiles and architectural terracottas have been found, dating from the second half of the 6th to the 1st centuries B.C.<sup>869</sup>

The South-East Building at Murlo is probably the most securely identified workshop, and at the same time the earliest (640-630 B.C.) and the largest (*Fig. B88-B91*). Several finds attest that the building is to be identified with a workshop: the concentration of unfired stacked tiles, found in the centre of the building attest to tile production; a mould for one of the canopic head antefixes, found on the floor of the building, show that architectural terracottas were made her; finds of crucible fragments and several metal objects indicate that metal was worked; and numerous ivory and bone fragments (both finished works and partially worked) attest to production of especially ivory and bone inlay and figurines. Pottery was probably also produced in this workshop, since the kiln has recently been found and since clay analyses show that the clay is local.

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<sup>865</sup> See the appendix. No plan has been published.

<sup>866</sup> For an estimation of the amount of tiles produced in Acquarossa see Ö. Wikander 1993, 138-139. Based on 1700 buildings during the total lifespan of Acquarossa 560,000 pan tiles, 510,000 cover tiles, and 27,000 ridgepole tiles would have been needed - and to this should be added the architectural terracottas.

<sup>867</sup> See the appendix.

<sup>868</sup> For workshops in general see Nielsen 1987; Damgaard Andersen 1993a, 79-81; Nijboer 1997.

<sup>869</sup> Edlund 1984, 286 (with further references).

At Populonia in an area near the sea and the cemeteries an industrial area has been identified. Numerous iron slags can still be found all over the area and some *tuyères* were also found. Depressions in the ground are interpreted as furnaces. From this it is clear that metal working and smelting took place from the early 6th century B.C. Two buildings were found, of which the earliest phase can be dated to the late 6th/early 5th centuries B.C. These buildings must have functioned as workshops, but probably also for habitation.

At San Giovenale House A on the Borgo may also have been used as a workshop (*Fig. B3,7 and Figs. B159-160*). Around this house traces of metal manufacturing were found. The house dates to the late 7th or 6th centuries B.C.

A building in Marzabotto, regio II, has also been identified as a workshop. Since kilns were found, dating from the 6th century B.C., pottery and possibly other terracotta objects were produced here. The antefixes found here may have decorated the building or have been manufactured here, or they may have belonged to the newly found temple in regio I/5.

Roselle, *Collina Sud*. Within room G two kilns for pottery were found and another two kilns were found in room H-I west of room G (*Fig. B146*). They are dated to the Late Archaic period. The kilns were probably earlier than the building.

In Cerveteri, the so-called Sanctuary of Hera in Vigna Parrocchiale, excavated by Mengarelli in 1913, may also have functioned as a workshop (*Figs. B35-B36*). The excavation is very poorly published thus we have no descriptions of the walls nor do we know the location of the finds. The dating is also uncertain. Mengarelli did not identify the building, but he suggested that the architectural terracottas found decorated a hypothetical temple nearby, since he did not consider the walls adequate for a temple. His theory was based on Hellenistic votive inscriptions to Hera as well as other votives found in the vicinity. Because he found bucchero, he believed that the votive deposit went back to the 6th century B.C.!

I do not see why the terracottas could not have originated from the excavated building. Even if we have no idea about the date of these walls, the *pozzi*, the channels, the kiln (probably not Archaic, though) and the mould (as well as other later moulds) seem to indicate that the building may have been a workshop. It is impossible to determine whether the architectural terracottas were only made here or also decorated the building. The votives may also have been manufactured here or may have belonged to a nearby temple.

In Laurentina-Acqua Acetosa, Building V,1, dated from the second half of the 6th century to the early 5th century B.C. (*Fig. B247*), the presence of kilns suggests a small "industrial centre" according to the excavators. At the same time the building seems to have been domestic with a stable.

At Satricum two Archaic kilns were found, one on the southern part of the acropolis, dated to the 7th century B.C., and one on the western side of the acropolis, dated to the 6th century B.C., but no workshop buildings have been identified.

At Lavinium finds of kilns in the northwestern area suggest that one or more workshops were located here (*Fig. B283* - the arrow and dates indicate kilns).

In Doganella the surveyors suggest that amphorae (*Figs. B48-B49*) were produced at specialized workshops.

The evidence from the South-East Building at Murlo (*Figs. B88-B91*) shows that early workshops produced several different kinds of artefacts, and thus were not specialized, though it is uncertain to what extent this is representative, especially in regard to larger towns. During the 6th century B.C. workshops seem to become more specialized and pottery/tile production<sup>870</sup> was separated from metal production. In some cases pottery production could have been separated from tile production.

Since we have preserved so little evidence on workshop buildings, the location of workshops is uncertain. Based on the evidence from Greece the pottery/tile workshops were probably located outside the towns (because of the danger of fire and the smell), but close by (in order to avoid long transportation). However, we also have evidence of workshops within the cities (such as Marzabotto and San Giovenale, the Borgo, House A).

As mentioned above workshops could also be located in sanctuaries. These mainly seem to have produced terracottas, probably votives to be sold in the sanctuary.

The building found next to the thirteen altars at Lavinium (*Figs. B289-B291*), dated to between the mid-6th and the 1st half of the 5th century B.C. may also have been a workshop. The identification of the building is uncertain: the closeness to the altars suggests a connection to the cult, but the kiln, the quantities of domestic pottery found, the kitchen, and no finds of sacred objects suggest a mere profane function. The presence of the kiln indicates that perhaps votives were made here and the building was thus used (entirely or perhaps only partly) as a workshop. The building itself does not seem to have had a sacred function. Torelli suggests an *edificio di servizio*.<sup>871</sup>

At Narce, Monti Li Santi a temple building/"palazzo" consisting of at least two flanks around a central courtyard was found (*Fig. B97*). In room E was a kiln and to the east of the building another two kilns and a basin, probably for levigating clay, both dated to the Late Archaic period.

In Tarquinia, Pian di Civita, several kilns were found. The earliest belonged to the Late Bronze Age (no. 430) (*Fig. B175*), another from the Early Iron Age built on top of the earlier one (nos. 415-416) (*Fig. B177*). From the mid-6th century B.C. a kiln was located in the small northern room (no. 220) (*Fig. B188*), and this may have been a workshop building. A furnace was found in Building Beta, dated to the second half of the 6th century B.C. (*Fig. B189*). Another furnace was located north of Building Beta (near no. 159), dated to the Late Archaic period (*Fig. B190*). This may also indicate production (of votives?) within the sanctuary.

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<sup>870</sup> Pottery and tile production always seems to have taken place in the same workshop (for this see Ö. Wikander 1993, 137-139).

<sup>871</sup> Torelli 1984, fig. 4.

Based on this evidence of a very different character it is not possible to find any common characteristics for the workshop buildings. They could be located both in separate buildings or be part of other (domestic (?) buildings), or possibly open-air. Only in the case of the South-East Building at Murlo do we have certain evidence of a workshop decorated with architectural terracottas.

#### FUNERARY BUILDINGS

The funerary building is the most problematic building type of all. Different kinds of evidence show that a number of buildings were located in cemeteries (*Diagrams 7-8, Fig. 153, and Plan 13*). The evidence consists of foundations (such as Orvieto, Cannicella (*Fig. B101*), Vetralla (*Figs. B230-231*), and Vulci, Cuccumelletta (*Fig. B243-244*)), a building cut out of the tufa (Castro, Ischia di Castro) (*Figs. B29a-B29c*), and only architectural terracottas (Cerveteri, Vulci, Ponte Sodo, Tuscania, Palestrina, and Rome, Esquiline) and a single tile from the Crocefisso del Tufo cemetery in Orvieto. A few finds of architectural terracottas may also have come from cemeteries, though this is uncertain: Orvieto, Campo della Fiera and Vetulonia (Basse degli Olmi).

To these should be added the relief scenes from especially the Chiusine cippi with buildings and tents - at least the ones with a prothesis scene must be related to a funerary sphere.

As we saw above (the discussion on temples in cemeteries) the only certain evidence of Archaic sanctuaries in cemeteries is the Late Archaic Cannicella sanctuary. The architectural terracottas from the Esquiline cemetery at Rome, dated to 540-30 B.C./the Late Archaic period may have belonged to one or more temples in the area, because of the votive deposits. The building at Vetralla has also been regarded as a temple, but nothing has been published that support such an identification (for this see below).

It is uncertain from what type of building(s) the remaining evidence originates. The architectural terracottas found in cemeteries are found both within and outside the tombs. By some scholars they are interpreted as belonging to temples, possibly to deities of the Underworld.<sup>872</sup> This identification is based on later temples in the cemeteries, such as in Vulci;<sup>873</sup> on the finds of architectural terracottas; and because altars are found in cemeteries.<sup>874</sup> The altars, however, need not be connected with temples, since they are also found in cemeteries without temples. The altars are probably a development from smaller altars used for offerings to the dead and are thus probably to be connected with an ancestor cult. As mentioned above both types of cult may have existed in cemeteries (an ancestral cult and a cult to the deities of the Underworld) or the ancestral cult may slowly have developed into the worship of the deities of the Underworld and from there to regular temples. Temples in cemeteries are fairly common in a later period, especially in the 4th century B.C. - exactly the period in which the gods of the Underworld become more common, as is seen in tomb paintings. Regarding the Archaic architectural terracottas, however, there are no indications that they decorated

<sup>872</sup> See for example G. Colonna in *Santuari d'Etruria* 1985, 116.

<sup>873</sup> A. Sgubini Moretti in *Santuari d'Etruria* 1985, 4.5, 78-80.

<sup>874</sup> Steingräber 1982, 103-116.



temples, since no votives or any other sacred indications were found (with the exception of altars, but only in Vetralla and they may be funerary altars) and thus nothing suggests that they should be interpreted as belonging to temples.

Other suggestions have been made, especially regarding the architectural terracottas from Populonia and Palestrina. These are generally considered to have decorated tombs.<sup>875</sup> Very few types of tombs would be suitable to be decorated with architectural terracottas, actually only the *aedicula* tombs in Populonia, and these usually have roofs of tufa plaques and an architectural decoration in stone (see chapter 3).

Let us look at other possibilities for the architectural terracottas from cemeteries. A few Chiusine models show a prothesis taking place within a building.<sup>876</sup> On a cippus dating from the late 6th century B.C. a prothesis takes place within a building supported by columns (cat. no. 67) (*Fig. A62*). The building is decorated with a disc antepagmentum, two reclining felines as corner akroteria, antefixes, and possibly raking simas. Another fragment of a relief from Chianciano/Chiusi shows a prothesis scene inside a building with columns, volute corner akroteria, and a raking sima (cat. no. 68) (*Fig. A63*). Jannot's investigation of the Chiusi reliefs<sup>877</sup> has shown that the custom of prothesis and ekphora was in reverse order in Etruria, compared with Greece, so that a building would be needed for the prothesis in the cemetery. The *Pietra Zannoni* (cat. no. 66) (*Fig. A61*) may show a funerary procession and the column at the back may indicate a funerary building at a cemetery, but this is uncertain.

In some of the Chiusi reliefs (cat. nos. 70 and 72) (*Figs. A65 and A66*), Jannot also sees evidence of tents used as chapels - which is also seen in some of the tent-like tombs, like Tomba del Cacciatore in Tarquinia (*Fig. 75*).<sup>878</sup> Such tent representations all date to the 6th and 5th centuries B.C., as do the scenes with prothesis.<sup>879</sup> As argued in chapter 3 it is likely that all the painted tombs with a painted checkered pattern in the roof imitate tents, probably tents set up in the cemeteries, either for the prothesis or other purposes. Thus the prothesis seems to have taking place within the sanctuary either in a building (often or always ?) decorated with architectural terracottas or in a tent.<sup>880</sup>

The evidence from the building at Castro with three rooms in a row cut out of the tufa (see the appendix) also suggests that funerary banquets took place in buildings within the cemeteries (*Figs. B29a-c*). It was located below a platform with a monumental altar, dated to the last quarter of the 6th century B.C. Another Chiusine cippus (cat. no. 71) (*Fig. A35*) shows a banquet taking place in a tent.

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<sup>875</sup> Minto 1934, 107-118 thinks that *aedicula* tombs were decorated with architectural terracottas, supported by Martelli 1979, 36. Similar ideas have recently been expressed regarding the terracottas from Palestrina. S. Gatti in *Roma dei Tarquini* 1990, 166 has suggested that the terracottas may have originated from the Fortuna temple and were later removed to decorate a tomb. I consider both these theories highly unlikely.

<sup>876</sup> For a discussion of this see further Jannot 1974, 723-744.

<sup>877</sup> Jannot 1984, esp. 368-373.

<sup>878</sup> Naso 1996, 394-395.

<sup>879</sup> Naso 1996, 366.

<sup>880</sup> G. Colonna in *Atti del II Congresso Internazionale Etrusco, Firenze 1985*, Florence 1989, 591.

The fact that it is a funerary cippus may suggest a funerary banquet, thus such banquets could also take place either in a building or a tent. Banquets are also seen in the gable of the painted tombs in Tarquinia, such as T. Bartoccini, dated to 530-520 B.C. (*Fig. 83*), which may also suggest funerary banquets.

A curious building (or in fact only part of the architectural stone decoration, consisting of volutes) is known from Chiusi, though unfortunately without an exact provenance (*Fig. B39*).<sup>881</sup> These fragments must originate from a small building (between 2.50 m and 4 m in width) entirely in stone, dated to the third quarter of the 6th century B.C. The building resembles several models, so-called "*naiskoi*". These models are open at the front and can thus not have been used as urns or sarcophagi, but their exact function is uncertain. It has been suggested that they were small shrines placed in sanctuaries, and that statuettes of deities could have been placed in the opening, such as on the later model now in the British Museum.<sup>882</sup> Unfortunately, we do not know the exact provenance of any of these "*nasikoi*". One is a large model, more than 1 m long (cat. nos. 17) (*Fig. A15*), probably from Cerveteri, while the other two are smaller models from Chiusi (of the same size as the cippi and urns) (cat. nos. 34-35) (*Figs. A33-A34*). The so-called stone akroteria (volute or floral) from Populonia may also originate from such "*nasikoi*".<sup>883</sup>

To me the most logical solution is that the architectural terracottas decorated a kind of funerary building, either a building for a prothesis, a kind of "mortuary chapel", in which the body of the deceased was placed before the funeral, or a building used for banquets, though we have no certain evidence that such funerary buildings were decorated with architectural terracottas. The same building may in fact have been used for both purposes.

Other, though less likely, possibilities may be that they decorated a kind of heroon,<sup>884</sup> or a temporary monumental entrance to the tomb, in which the prothesis could take place.<sup>885</sup>

Recently another building has been found in a cemetery, which may have been connected to a funerary cult. At Vulci a rectangular structure with a plain tiled roof has been discovered (*Figs. B243-B244*),<sup>886</sup> in connection with the Cuccumelletta tumulus, dated to the 7th century B.C. The structure is interpreted as a covered shrine built to honour the family members buried in the tumulus, but may in fact have been used either for prothesis and/or funerary banquets. Some kind of sacred connotations cannot be excluded though the nature of such (ancestral cult?) is uncertain. It is thus possible that all

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<sup>881</sup> See the appendix.

<sup>882</sup> For references see cat. no. 17.

<sup>883</sup> See the appendix.

<sup>884</sup> As has been suggested by A. Naso in *Roma dei Tarquini* 1990, 252.

<sup>885</sup> Jannot 1984, 369.

<sup>886</sup> See the appendix.

these funerary buildings may have had both a mortuary function as well as an honorary function, perhaps with yearly (or other intervals) offerings to the deceased family members/the *paterfamilias*.

In the same area several tombs with an open-air vestibule were found, probably also used for funeral ceremonies/*ludi* in honour of the dead. Such open-air vestibules are also known from Tarquinia and other sites, also dated from the 7th century B.C. onwards.<sup>887</sup>

The evidence from Vetralla (*Figs. B230-B231*) is problematic. Within a cemetery a circular tufa monument (previously interpreted as an altar, but now suggested by Colonna to have been a basis for cippi like the ones from T. Cima (*Fig. 61*) was found. Around this was a large rectangular square (c. 12 x 15 m) with steps on three sides. These steps could have been used for spectators for funeral games and rituals in connection to funerals.<sup>888</sup> The monument is dated to the first half of the 6th century B.C. Two altars were also found. A building nearby may have been a funerary building, though the preliminary report makes the identification difficult.

A unique type of building has been excavated at Montetosto, 4 km outside Cerveteri (see also above). The large building complex has been interpreted by Colonna as a sanctuary, primarily based on the presence of architectural terracottas and the so-called altar. On the basis of Colonna's preliminary reports, unfortunately not much can be said about the identification of the building. Because the building was next to the tumulus, it has been connected to the story in Herodotos of the slaying of Phocaeen prisoners after the battle of Alalia and the following funerary games. Since the tumulus is earlier than the building this is hardly a valid argument. But as it is in a cemetery area, some kind of funeral/sacred function is likely. The ground-plan, however, is very similar to the one of the Upper Building at Murlo, thus the building may have functioned as a meeting hall and/or have been used for funeral games. It cannot, of course, be excluded that the origin of these funeral games went back as far as the 7th century B.C.

Based on this meagre evidence it is difficult to say much about building characteristics. The funerary buildings must either have been temporary buildings (such as tents, wooden buildings or sheds) or more permanent buildings with stone foundations and tiled roofs, in most cases with a decoration of architectural terracottas. They could also be cut into the tufa such as in Castro. The earliest evidence comes from the buildings near the Cuccumeletta tumulus at Vulci, dated to the 7th century B.C. (and the "*naiskoi*", dated to the second half of the 7th century B.C. onwards), while all the architectural terracottas date to the 6th century B.C. (mostly the Late Archaic period).

#### BUILDINGS THAT CANNOT BE IDENTIFIED

Many buildings are either too badly preserved and/or too badly published to allow any identification. Besides excavations in progress and buildings that have only been preliminary published, a number of

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<sup>887</sup> Colonna 1993a, 322-331.

<sup>888</sup> Colonna 1993a.

other buildings cannot be identified, usually because the evidence is badly preserved. For these see *Diagrams 7-8*.

## CONCLUSION

One should always keep in mind that many buildings are often too poorly preserved (or too poorly published) to allow any identification. Thus, building identifications are always very tentative, and the material on which we base our conclusions very random.

From the Early Iron Age to the Early Archaic period, buildings with several functions seem to prevail (integrated function). In the 6th century B.C. several types of buildings can be identified. These include temples, "*palazzi*", affiliated sacred buildings, domestic houses, farm houses, workshops, and funerary buildings.

## TEMPLES, AFFILIATED SACRED BUILDINGS, AND "*PALAZZI*"

As we have seen a large number of sanctuaries are known, a substantial number of which have monumental temple buildings. To these should perhaps be added the so-called "*palazzi*", which may in some cases have served functions similar to "political" sanctuaries.

Instead of following the typology of assigning sanctuaries/temples as urban, extra-urban etc., I have chosen to base my typology on function rather than of proximity/relation to the city. Thus, two types of sanctuaries/temples prevail in Etruria and Latium: sanctuaries with a "basic" sacred function and sanctuaries with further aspects, especially an emporium/trade function and/or a "political" function. The "basic" sanctuaries are all placed within the city or just outside it (urban and sub-urban). To these should be added local rural and natural sanctuaries, primarily placed in the countryside.

"Political" sanctuaries/"*palazzi*", emporium/port sanctuaries, and cemeteries are all placed some distance from the cities (extra-urban). The emporium sanctuaries are placed by the sea (or perhaps near a river if S. Omobono is considered an emporium sanctuary), while "political" sanctuaries/"*palazzi*" are placed near communications routes.

As can be seen from *Diagrams 11-12* "basic" sanctuaries prevailed, especially those located within the city (urban), though sub-urban sanctuaries were also common, especially in Etruria. Rural sanctuaries are rare (Sasso Furbara) - in fact it is questionable whether we have any evidence for monumentalized rural sanctuaries at all. No natural sanctuaries were monumentalized, though it is of course a matter of distinction whether they should be considered natural sanctuaries or sub-urban/rural sanctuaries. For instance Arezzo, Fonte Veneziana, may be regarded as a monumentalized natural sanctuary instead of a sub-urban sanctuary.

Sanctuaries with further aspects are rare. Emporium/port sanctuaries are found at Gravisca, Punta della Vipera, Pyrgi, and possibly also at Lavinium, *Locus Solis Indigetis*/Tor Vaianca and Rome, S. Omobono. Sanctuaries in cemeteries are found at Orvieto, Cannicella and possibly also at Rome, the Esquiline (though no building has been found, only architectural terracottas). The sanctuaries at Satricum, the south-west area, Civita Castellana, Celle and perhaps also Orvieto, Campo della Fiera

may have been related to a cemetery, though this is uncertain. "Political" sanctuaries are primarily known from literary sources such as *Fanum Voltumnae* and *Lucus Feroniae*, but the so-called *palazzi* may have had a similar function. They may also have functioned as civic buildings. The "*palazzi*" can be separated in two groups: those with and those without sacred finds (see *Diagram 13*).

Temples in Latium originated in the early 6th century B.C. The Etruscan temple, on the other hand, was later, possibly around the mid-6th century B.C., with the exception of Building Beta at Tarquinia.

The origin/inspiration for the Latial/Etruscan temples has been debated. The shape of the temples in both Latium and Etruria vary, but it is not possible to distinguish an Etruscan versus a Latial temple plan.

Cult seems at an early stage to have been integrated in the habitation, as can be seen e.g. in Satricum, Gabii and possibly also Cerveteri, and in the Archaic period in Rome, the Regia, Roselle (*Casa del recinto*) and Narce, Monte Li Santi - a tradition continued in later Roman houses. While cult continuity can be traced back to the prehistoric periods many places in Latium, we have almost no evidence for cult in the Early Iron Age in Etruria.

Andrén and Colonna have argued that the early Etruscan temples were inspired from domestic buildings, such as they are seen in the early tombs at Cerveteri, e.g. T. Mengarelli and T. delle Nave, dated to c. 660 B.C.<sup>889</sup> Colonna points to the square shape of both the tomb itself and the *atrium* in the houses compared to the pronaos of the temples. I agree that the physical appearance in some cases was inspired by domestic buildings, such as a three-room arrangement in both houses (e.g. at Acquarossa) and temples (e.g. Veii, Portonaccio) and tombs (Prayon type D). In other cases the temple consists of a simple rectangular room, for which we cannot determine a specific origin. But for the peripteral temple there is no resemblance between this and an Etruscan house. This resembles a Greek temple in a general sense by being peripteral.<sup>890</sup> From Etruria this type is only known in Pyrgi, temple B, dated to c. 510 B.C. and in Latium, Satricum, temple II, dated to 500-480 B.C. These are very similar in plan to each other and both closely resembles the Doric temple at Pompeii (*Fig. 153*). The Pompeii temple is the earliest, dated to c. 520 B.C., and may thus have inspired the other two.<sup>891</sup> These three temples seem to belong to a specific group of temples using mixed Central Italic and Greek members. That Pyrgi temple B uses a (partly) Greek shape is hardly surprising considering that the site is an emporium/port sanctuary.

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<sup>889</sup> Andrén 1959-1960; Colonna 1981, 42; G. Colonna in *Santuari d'Etruria* 1985, 53.

<sup>890</sup> Rowe (1989, 120-123) has pointed to the Athena temple at Paestum as a possible inspirator for Pyrgi temple B. He dates the Athena temple to c. 530-520 B.C. (based on Lawrence and Robertson), but now everyone seems to agree that the temple should be dated to the late 6th century B.C., thus the temple is later or contemporary with Pyrgi temple B (see e.g. E. Greco & D. Theodoresco, 'Topografia e urbanistica: dalla fondazione alla conquista lucana', in M. Cipriani & F. Longo (eds.), *I Greci in Occidente. Poseidonia e i Lucani*, Exhibition catalogue, Paestum, Museo Archeologico Nazionale, Naples 1996, 23).

<sup>891</sup> J.A. de Waele, 'De 'Dorische' tempel op het Forum Triangulare te Pompeii', *Herameneus* 54, 27-35. This has also been pointed out by Colonna and Rowe (Rowe 1989, 119 with further references).

I agree with Rowe that the problem with Colonna's and Andrén's ideas (that the Etruscan temple as such is inspired from domestic houses) is that they are based on early temple identifications, which are questionable.<sup>892</sup> Andrén bases his on Poggio Casetta at Bolsena, which Colonna has shown to be Hellenistic, and Piazza d'Armi, which I have argued cannot be regarded a temple. Colonna further adds Roselle, *Casa del recinto*, which cannot be considered a temple as such. The small enclosure in the courtyard of the Upper Building at Murlo (dated to the early 6th century B.C.) was probably not even roofed and the function is uncertain, but nothing sacred was found - in either case it cannot be regarded as a temple, since it is integrated in the building. Building F in zone C at Acquarossa, near building A-C in zone F, probably dated to the mid-6th century B.C., has by some been interpreted as a temple, but nothing supports this.

On the other hand, the so-called "*palazzi*" probably had many of the same functions as the temples, especially as being meeting places and commercial centres (possibly only a few times during the year). To what degree - if any - these "*palazzi*" were "sacred" is hard to determine, but perhaps their function was not so far from the function of some of the early sacred huts, i.e. some kind of integrated function between the sacred and the profane.

Rowe argues that the Etruscan temple was introduced in Etruria in a fairly developed form, based on Greek temples and treasuries.<sup>893</sup> This theory does not seem to be confirmed when the Latial material is incorporated, and the origin for the three cellae type with columns in front is most naturally sought in Etruscan domestic buildings - not surprising considering the integral (sacred and profane) function of early Etruscan buildings.

Thus I believe that the main Greek influence on Etruscan (and Latial) temples lies in the idea/concept of building temples, i.e. a specific cult house, separated from the habitation. In Greece cult activity took place at sanctuaries and temples from an early period.<sup>894</sup> This temple idea reached Campania/Latium around 600 B.C., possibly through southern Italy and Sicily. Only at a later stage did the temple idea reach Etruria, around the mid-6th century B.C. Only in a few cases did the Greeks inspire the actual shape of the temple, such as can be seen in the few peripteral temple buildings in Etruria and Latium. The temples of Latium naturally also inspired the temples in Etruria, e.g. the three cellae arrangement is found both in Etruria and Latium, as well as the frontality.

Whether or not the idea of architectural terracottas were also imported from Greece (see also chapter 4), it is important to note that in Greece only temples seem to have been decorated with architectural terracottas (with the possible exception of building F on the Agora) while this was not the case in Italy. A further difference is that use of the recessed gable with antepagmenta on Etruscan temples, a feature unknown in Greece. The Etruscan use of large akroteria in the ridge of the roof, such as they are known from Veii, Portonaccio, Murlo or Satricum, Temple II, are also unparalleled

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<sup>892</sup> Rowe 1989, 111-117.

<sup>893</sup> Rowe 1989, 125-126.

<sup>894</sup> For a recent discussion of this see A.M. Ainian, *From ruler's dwellings to temples. Architecture, religion and society in Early Iron Age Greece (1100-700 B.C.)*, SIMA 121, 1997.

in Greece. Both architectural terracottas and recessed gables were also used in Etruscan domestic architecture.

That Near Eastern influence also can be seen in Etruscan sanctuaries is now clear from Building Beta at Tarquinia with its "eastern" building technique. This temple is the only site in Etruria where we have evidence for cult continuity from the Late Bronze Age onwards. Building Beta should perhaps be considered an early (and single?) attempt to "copy" a Near Eastern sanctuary.

Finally should be considered the nature/function of the Etruscan temple. To return to the types of functions suggested by Turner<sup>895</sup> (discussed above) the evidence suggests that the Etruscan temple should not be considered the *deorum sedes* in the same sense as the Greek temple, at least not in the Archaic period, since cult images seem to be a late phenomenon in Etruria (Late Archaic at the earliest) (and possibly also in Latium). Another of Turners points, that the layout of the sanctuary was not based on human aesthetics, architectural principles or functional needs, also do not seem to cover Etruscan temples, at least not in regard to orientation of the temples, which seems to be based on the topography of the landscape and not on religious beliefs. But exactly how the temple should be considered is uncertain. Did it have an augural function as suggested by Mertens (see above) or is it merely an "appendix", the primary function of which was prestige for a king or the aristocracy (a show of wealth which was previously displayed in the tomb goods) and show that the Etruscans could build as grand temples as the Greeks?<sup>896</sup> If the latter is the case this would explain why cult statues are absent, why the orientation seems to have been based on the topographical setting in nature, and why so many sanctuaries did not have monumental buildings/temples. Unfortunately, the lack of contemporary (Etruscan) literary sources make this impossible to answer.

Within the sanctuaries other types of buildings than temples are sometimes found, often referred to as affiliated sacred buildings. They are often small buildings, probably used for storing (votive) objects, buildings for priests/priestesses, porticos/stoai, the cellae or *hierodouloi* at Pyrgi, or workshops. In general we have very few examples of these building, and in most cases their function is not clear.

#### CIVIC BUILDINGS

With the exception of Comitium at Rome (which has not been located) no building can be securely identified as civic. Perhaps civic matters were primarily dealt with at the "*palazzi*" (see *Diagram 13*).

#### DOMESTIC BUILDINGS

These are numerous in both Latium and Etruria from the prehistoric period (*Diagrams 7-8*). At first huts, but during the second half of the 7th century B.C. the first houses with tiled roofs and architectural terracottas appear. Most houses are fairly small, but a substantial number have four or more rooms. In a few cases larger houses are known, such as Roselle, *Casa del Impluvium* or

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<sup>895</sup> Turner 1979.

<sup>896</sup> For a discussion of this see also Glinister 1997, 71-75.

Regisvilla. To these should be added the *insulae* houses primarily known from Marzabotto, but perhaps also from Rome, the slope of the Palatine. A specific type is the courtyard houses with a number of rooms arranged around a courtyard. These are related to the "*palazzi*".

#### FARM HOUSES

Only few farm houses have been excavated. Of these the only well published is Podere Tartuchino.

#### WORKSHOPS

Workshop buildings are rare, though a number of kilns are located on the settlement sites. The most well preserved workshop is the one at Murlo, the South-East Building, dated to 640-630 B.C. Another is located at Populonia, "the industrial area". Otherwise mostly isolated finds of kilns and furnaces/slugs are found.

#### FUNERARY BUILDINGS

Funerary buildings are problematic. Remains of buildings at cemeteries suggest (besides the sanctuaries mentioned above) that buildings were used for prothesis and funerary banquets. Such building could be either temporary buildings/tents or more substantial buildings with tiled roofs and architectural terracottas.



## CHAPTER 6

### CONCLUSION

Though poorly preserved in most cases, many different types of evidence for Etruscan architecture have been preserved. The most important source is of course the building remains, but regarding the superstructure secondary evidence is of vital importance, especially models, depictions of buildings, and house tombs. Literary sources are primarily useful for Rome and to some extent Latium, and in a few cases for building technique (especially Vitruvius).

The remains of buildings and their interpretation are presented in the appendix, and in chapter 2 this evidence is briefly discussed, dividing the buildings into the following periods: the Early Iron Age to the Middle Orientalizing period (900-650 B.C.); 650/640 - 600 B.C.; 600/590 - 550 B.C.; 550/540 - 520 B.C.; 520/510 - 480/470 B.C. From this discussion it is clear that in the early periods huts prevailed. Huts could be either circular, oval or rectangular in ground-plan, but all shapes were used at the same time. Around the late 8th/early 7th centuries B.C. houses with thatched roofs appeared, and in the mid-7th century B.C. tiled roofs were developed. Thus, the rectangular house (with a thatched roof) was a common shape before the introduction of tiled roofs. Huts, however, continued to be used for a long period.

In the second half of the 7th century B.C. large monumental buildings appeared but smaller houses were also built. While Northern Etruria had a number of monumental buildings in the 7th/first half of the 6th centuries B.C. the emphasis soon shifted to Southern Etruria and Latium. In the Late Archaic period a large number of buildings were built, still primarily in Southern Etruria and Latium.

In chapter 3 the secondary evidence of buildings is discussed in relation to the catalogue (with 86 models/depictions of buildings). Besides these, the hut urns from the Early iron Age and the large number of house tombs, both showing the exterior and the interior of houses, are discussed. This evidence is especially important for the reconstruction of the superstructure of Etruscan buildings. One important problem (especially for the 7th century B.C.) is how to determine whether a model represents a building with a thatched or a tiled roof. I have argued that a steep roof (30°-40° or more) represent a thatched roof, while a low-pitched roof (10°-20°) represents a tiled roof. From this secondary evidence we can reconstruct doors, windows, woodwork of roofs, etc.

This evidence is used in chapter 4 - together with the remains of excavated buildings - to discuss building technique. Especially the woodwork construction of a tiled roof is discussed and it is argued that since the main problem with a heavy tiled roof was the side loads, a tie beam was necessary to keep the walls from falling. Based partly on the large spans of several buildings (10.50 m in the Capitoline temple), partly on imitations of woodwork of roofs on models and in tombs, it is argued

that these could not have been constructed without a truss - even if several scholars reject that the truss was used. In fact the evidence from the Caeretan tombs suggests that the truss was already in use in houses with thatched roofs from the early 7th century B.C. Regarding the tiled roofs and the architectural terracottas these need not have been transported to Italy from Greece (the Demaratus story), but may well have been developed in Italy. At least architectural terracottas have clear parallels in decoration cut out of the crosspieces of the roof, such as can be seen on the hut urns. It is possible that the origin for the tiled roof may be sought in the use of clay on top of the thatched roof.

In chapter 5 the different types of Etruscan buildings are discussed. In Etruria and Latium from the Early Iron Age and into the 6th century (perhaps even later, such as Narce, Monte li Santi) the cult (besides natural sanctuaries) was integrated in the habitation, probably of the chieftain. This can be seen most clearly in Satricum, but also elsewhere. This situation is mirrored in Greece, where a similar early integrated function existed.<sup>897</sup> In Latium we have evidence of sanctuaries defined by votive deposits from the 10th century B.C. onwards, but no such evidence exists for Etruria. It is usually argued that temples originate in the 7th century B.C., often linked with urbanism. In fact temples (i.e. building solely dedicated to the worship of a deity) are late in Central Italy. The first temples are seen in Satricum (the *oikos* beneath the later temples) and Rome, S. Omobono in the early 6th century B.C. In Etruria temples are even later. The first temple is Ara della Regina at Tarquinia, dated to the mid-6th century B.C. There is one exception, however, namely the sanctuary at Tarquinia, Pian di Civita, where cult is continuously attested from the Late Bronze Age to the Hellenistic period. This sanctuary was built with a Near-Eastern building technique (*murs a piliers*) in the 7th century B.C. and may be inspired from Near Eastern/Phoenician sanctuaries. Otherwise the temple at Gravisca goes back to c. 580 B.C., but the early finds suggest that this was a Greek/international sanctuary. During the second half of the 6th century B.C. some temples were built both in Southern Etruria and Latium, but around 520-510 B.C. a large number of monumental temples were erected and several of these were soon replaced by other and larger temples. Thus, a "temple-boom" can be seen in this period.

The different criteria for defining a temple are discussed (votive deposits, votive inscriptions, altars, cult statues, temenos walls, temple buildings, cult continuity, literary sources, and iconographical evidence). It is not possible from these criteria to make a "checklist", and it is important to stress that the evidence must be viewed separately in each case. A few criteria, however, are certain indicators of a temple: votive deposits, votive inscriptions, altars, and buildings on podiums. It should be emphasized that altars in fact are fairly rare in sanctuaries and that certain evidence of cult statues is unknown in Etruria in the Archaic period. In Latium literary sources suggest that they were known from the Late Archaic period.

In my classification I have divided the sanctuaries into two main groups: "Basic" sanctuaries and sanctuaries with further aspects. While "basic" sanctuaries are defined as sanctuaries with no specific

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<sup>897</sup> A. Mazarakis Ainian, *From rulers' dwellings to temples. Architecture, religion and society in early Iron Age Greece (1100 - 700 B.C.)*, SIMA 121, Jonsered 1997.

function except being a holy place for a specific deity/deities, sanctuaries with further aspects have an additional function: emporium sanctuaries, sanctuaries in cemeteries, and "political" sanctuaries. Thus, I have chosen to stress function instead of location. "Basic" sanctuaries are located within the city or just outside it (urban or sub-urban) and in the country (rural). Natural sanctuaries belong to the same type, but these could be located anywhere.

Sanctuaries with further aspects are located some distance from the city/cities (extra-urban). Emporium sanctuaries are located near the sea and rivers and functioned as multiethnic/international sanctuaries and meeting points. They were closely related to trade. They are found at Gravisca (Greek/Etruscan), Pyrgi (Phoenician/Etruscan), and possibly also in S. Omobono in Rome. Sanctuaries in cemeteries are attested from Orvieto, Cannicella, perhaps also the Esquiline hill in Rome.

To a specific group belong the political sanctuaries (such as *Fanum Voltumnae*, where the 12-city league met). To the same group I have chosen to regard the so-called "*palazzi*", which may have had a (partly) similar function. "*Palazzi*" are normally large complexes with several rooms, often in connection to a courtyard, which could have been used for meetings. Such "*palazzi*" sometimes had a sacred function (such as Montetosto or Narce, Monte Li Santi), while others apparently did not (Murlo and Acquarossa, zone F). Several of these also functioned as habitation, probably for a chieftain/king (such as e.g. the Regia in Rome (*domus regis*)), and in all the "*palazzi*" are many finds of a domestic character (domestic pottery, spinning and weaving implements etc.). These buildings probably also functioned as civic buildings in many cases. Thus, this group is not a well-defined group.

In a few cases we have evidence of other buildings in sanctuaries, the so-called affiliated buildings. These were probably used for habitation for priests, workshops, storerooms for votives etc., such as the building near the 13 altars in Lavinium. To this group should also belong the *hieroduloi* at Pyrgi, probably connected to sacred prostitution.

Unfortunately, we know very little about the deities worshipped in the sanctuaries. In Etruria the evidence (mostly inscriptions) points to a preference for female goddesses, especially Uni, Menerva and Vei or other goddesses with a fertility/mother aspect. Sanctuaries dedicated to male gods are very few, and male deities, especially Herele, possibly functioned more as consorts. In Latium goddesses also prevail, but here gods are more common. Triads are also known, such as Jupiter, Juno and Minerva in the Capitoline temple. It has been claimed that the "coming of the Greek gods" to Etruria took place in the 7th century B.C., but profound Greek influence is in fact not seen before the second half of the 6th century B.C.. The evidence from Tarquinia, Pian di Civita, instead points to an early Near Eastern influence.

Several scholars have suggested that the orientation of the temples is connected to which deity was worshipped, but temples can be oriented towards any corner and no fixed system can be seen. In some cases (Civita Castellana, Celle) the orientation is even changed. Instead temples seem to be oriented according to the topographical setting.

Many sanctuaries are connected to water/springs, probably related to purification. This aspect is present in most types of sanctuaries, primarily sub-urban and extra-urban.

Several ground-plans are used: one small elongated cella, probably without columns in front; one cella and an anteroom/porch; one elongated cella and peripteral; a temple with colonnades on the front and on the flanks, but a closed rear wall (the so-called *peripteros sine postico*); a square temple with columns in front, usually with three cellae (or one cella and two *alae*) and an anteroom; and a complex ground-plan with more than one room.

With the exception of Tarquinia, Pian di Civita, the earliest temples were simple one-room buildings. The three-cella/one cella and two *alae* probably originated in Tarquinia (Ara della Regina) around 530 B.C., but the type is not common until the Late Archaic period. In general all types of ground plans are used in the Late Archaic period.

All temples, however, have several characteristics in common: several are placed on podiums, all have a marked frontality, often with columns in front, and all have a closed posterior. The walls were either stone or mudbrick/*pisé* and the roofs were tiled. Almost all temples had architectural terracottas.

The size of temples varies from the early small temples, less than 150 m<sup>2</sup> to the large monumental temples in the Late Archaic period, the largest of which was the Capitoline temple (3000 m<sup>2</sup>).

Civic buildings are only attested from Rome, the Curia Hostilia, though this is only known from literary sources. The elliptical building at Cerveteri, Vigna Parrocchiale, may also have been a kind of civic building/meeting enclosure. In general administration was probably dealt with in the "*palazzi*"/the home of the king/chieftain.

Domestic buildings are numerous. In the Early Iron Age most huts have been identified as domestic, and huts were common well into the 6th century B.C. In the first half of the 7th century the first houses appeared and in the second half of the 7th century these became more substantial buildings with tiled roofs. Domestic buildings range from simple one-room buildings to large complex structures, such as the *insulae* houses at Marzabotto. Most domestic buildings were small (1-3 rooms); in a few cases larger. The rooms were placed either in a row or around a courtyard.

Most domestic buildings had stone foundations, either wattle and daub/mudbrick/*pisé* walls and in a few cases stone walls. Except for the earliest houses (first half of the 7th century B.C.) most domestic buildings had a tiled roof.

Defining the function of the individual rooms is difficult, but most rooms must have been used both for sleeping, production and living room. Kitchens were usually outdoor. Evidence of benches/madrases are found in a few houses, probably used for sleeping/banquets. Because of the finds, several storerooms have been identified. A few stables are also found.

While numerous farmhouses must have existed, we have only little evidence of these except through surveys. Only one Archaic farm has been excavated, namely that of Podere Tartuchino, dated to the second half of the 6th century B.C. onwards.

Workshops must likewise have been numerous, but they need not have left architectural remains. They may either have been separate buildings (such as the South East Building at Murlo) or could have been integrated in (domestic) buildings such as in Marzabotto or San Giovenale, the Borgo, House A.

Funerary buildings are found in several sanctuaries. The evidence consists mostly of architectural terracottas, and in Vulci the foundations have been found. In Castro the building is cut out of the tufa. These buildings probably functioned as "mortuary chapels" and/or buildings for funerary banquets. Tents may also have been used for similar purposes.

Thus, from the Early Iron Age to the Late Archaic period there is a profound change in architecture in Latium and Etruria with a development from huts to monumental temples and "*palazzi*". The economical background for this development is a change in agriculture in Central Italy. During the later part of the Early Iron Age and the Orientalizing period Etruria witnessed a substantial change in agricultural methods. The late prehistoric system of mixed farming (cereal/legume cultivation combined with stock-keeping) was replaced by a polyculture system (cereals, legumes, olives and vines) combined with more intensive stock-keeping.<sup>898</sup> Thus agriculture became more intensive, and thus could support a larger number of people living in one place. This led to an increase in the population, which can be seen from an increase in tombs and settlements.<sup>899</sup> Furthermore this provided the economic surplus necessary for acquiring luxury items for other than the aristocracy.

In the first half of the 7th century B.C. an economic-social transformation can be seen with the emergence of an aristocratic society, most notably in the princely tombs. Wealth accumulated in tombs, not in habitation. During the second half of the 7th century wealth was gradually also displayed in settlements and the "*palazzi*" with their rich finds (e.g. Murlo) may be seen as an expression of this. Wealth was now also displayed in architecture. In the 6th century wealth seems to have been more divided and a middle class arose. We have much fewer rich tombs, but several more "middle-class" tombs. Larger settlements/towns/cities arose and houses with tiled roofs gradually became the predominant building form of habitation.

In the early 6th century B.C. in Latium and around the mid-6th century B.C. in Etruria wealth was also displayed in temple buildings, probably built on the initiative of (and paid for by) a king or a group of the aristocracy (such as Pyrgi dedicated by the king of Cerveteri). This is especially seen in the Late Archaic period.

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<sup>898</sup> See e.g. G. Barker, 'Archaeology and the Etruscan countryside', *Antiquity* 62, 772-785 (with further references).

<sup>899</sup> See e.g. Potter 1979, 72-74, table 2.