

Domes in the Etruscan Tombs

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The Etruscan Tombs are generally of the hypogeic type; in the sites devoid of layers of soft rock, they are false hypogeic; a few monumental aerial tombs (*dado* tomb of Tuscania, for instance) are anyway sculpted and carved in the rock.

The rooms that compose an Etruscan tomb are displayed, according to the Megalithic tradition and, at the same time, the Mycenaean one, with the dynamic concept of the run of the deceased person from outside to the interior of the tomb up to the most internal chamber; this, very often, is covered by a dome. Several of these funeral installations can be considered a product of architecture since they are the result of an aesthetic, spatial, symbolic, constructive and structural research; they contain, but only in a few rooms, some features of the house.

The repertory of cupolas includes those of the artificial caves, with or without central pillar.

Other particular Etruscan domes, square sided, that till now were erroneously classified amongst the box ceilings but identified by the author as true architectural organisms, are built simulating timber corbelled constructions in complex tombs (in Chiusi, Vulci, Sovana, Perugia; V-III c.). Ancient domes of this kind are also to be found in Thessaly, Bulgaria, Azerbaijan and close countries.

The tholoi, extraordinarily spread in Europe and elsewhere, both temporally and geographically, are to be found in a lot of false hypogeal tombs in Etruria proper (Populonia, Vetulonia, Cecina, Casaglia, Carmignano (Firenze), Sesto fiorentino (Firenze) and others; IX-VI s.), covered by a tumulus; some of them have a central pillar.

Similar tumulus tombs with tholoi were built almost contemporarily in Thessaly and later (VI-III c.).

in the Thracian territories now called Bulgaria, in Crimea and in the close countries.

All the cited domes are built with the corbelling system or imitate that construction system.

The shape of the tumuli and the *cippi* is that of a dome.

Keywords: *domes, Etruscan architecture.*

1. General assumptions

The main concept of the Etruscan funerary installations (that includes the open spaces in front of the sepulcher where public funeral ceremonies were held, the “monument” itself and the tomb) is that of a dynamic distribution of spaces and rooms along a longitudinal axis of penetration, according to the great Megalithic practice and the Mycenaean tradition, in view of the fact that the tomb is designed to mark the run of the progressive burying in the soil of the deceased person; this is also the lay out of the expressions influenced by the Mycenaean tradition, such as those built in Greece (Cycladic Islands, Crete, Thessaly, Messenia, Achaia, Attica) till the VIII c. and in use for centuries, therefore at a date corresponding to the Etruscan *Periodo Orientalizzante*.

From the outskirts of the tomb, where most probably, immediately after the death, took place the public ceremonies with the exhibition of the funeral outfit, the body or the ashes were gradually transported to the most internal chamber of the building, the place of the final destination. The body or what remained of it, with its outfit and other elements capable to express personal and social connotations of the dead, was deposited there. The run was made step by step, each stage being suggested by a ritual, with ceremonies that became, in progress, more and more intimate.

The disposition of the rooms and chambers of the funerary settlements should then be classified as a sequence since it is inspired by the idea of the run.



Fig. 1. Map of Etruria (from Staccioli).

A special architectural device, widely employed in the large majority of the tombs in question, is the dome, generally placed to cover the deposition chamber; its origin is to be recognized in the excavated graves (Tampone, 2012).

The Etruscan dwellings, made for the sheltering and functionality of the living people, generally timber huts or little more, were poor things in comparison with the tombs; the relative information that are available today does not include the presence of domes in the dwellings; one is therefore forced to think that this special device, that is full of symbolic meanings, is peculiar of the tombs.

On the other hand, one can assume that the Etruscan funerary buildings belong, in general, to the rank of architecture (Tampone, 2012) since they clearly are the result of coordinated research on appropriate location,

lay out, aesthetic and spatial concept, symbolism, building technique, structural system. The dome seems then to be associated to the idea of architecture.

The lay out the house is planned following a static concept, that of the staying, which is in contraposition to that of a tomb as the populations of the pre- and proto-history intended.

No doubt, the tombs contained citations of the houses of the deceased persons or of dwelling models. In general, however, it is possible to recognize these quotations only in a few parts of the tombs and not in every room; furthermore, it ought to be noted that only the most characterizing connotations of the house are cited, like the double pitched roof of the timber hut, the upper ridge – in fact, the most distinctive element of the roof – and the central pillar, commonly interpreted as a reminiscence of the pillar of the timber house, put in the centre to support the upper ridge.

The domes of the Etruscan tombs can be classified as follows:

1. Excavated domes in the graves
 - without central pillar - with central pillar
2. Excavated domes (those of Chiusi, Vulci, Perugia, Sovana etc.; V-III c.)
3. Tholoi in the false hypogeal tombs (from IX to VII c.)
 - without central pillar (mainly those of Populonia, from the IX c. to the *Periodo Orientalizzante*; tomb of Velletri; see over)
 - with central pillar
4. Incomplete domes (Cerveteri) (VII-VI c.)

2. Etruscan excavated domes

A very few archaic small tombs excavated in the rock are covered by a designed dome; the great Inghirami tomb, Volterra, is excavated like the interior of an umbrella dome, though of irregular shape; a central pillar has been spared in the excavation (Colatoti, Tomba Inghirami; see over)

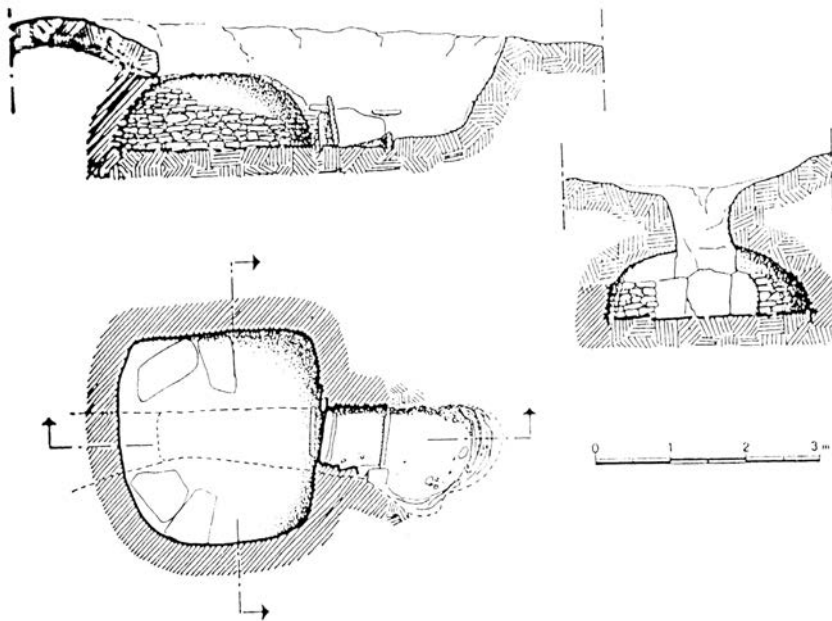


Fig. 2. Populonia, necropolis of Piano and Poggio delle Granate, Villanovian chamber grave (from Bartoloni, 1991).

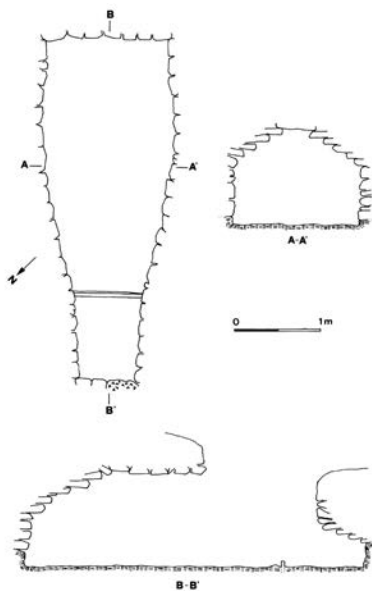


Fig. 4. Volterra, Tomba Inghirami (Hellenistic period).

Fig. 3. Populonia, necropolis of Molino or Telegrafo, Chamber grave (n. 4).

Etruscan excavated domes simulating timber domes

In a small area of Etruria around Chiusi including Vulci, Sovana, Perugia, in a very small number of tombs excavated in the rock, the covering of some chambers is shaped as a box ceiling, that are commonly called lacunaria; about the architectural shape, function and building techniques of a limited number of these “ceilings”, the author (Tampono, 2012) interpreted and classified them as representing timber domes of an uncommon

kind. Real lacunaria are however present elsewhere: typical the case of Tomba Casuccini in Chiusi where both a dome and a lacunaria ceiling are to be found.

Square in shape as the chambers, these domes simulate timber corbelled constructions.

A list of domes of this kind in Etruscan Tombs (Tampono, 2012) follows; however, the inspection of other funeral installations, presently in progress, will certainly add a few more specimens.

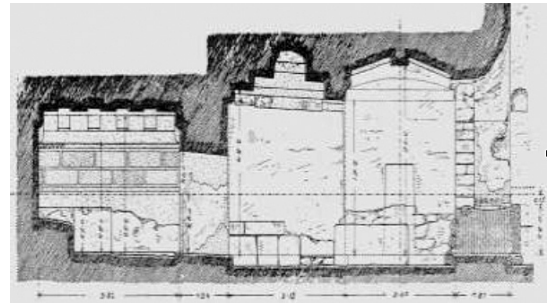
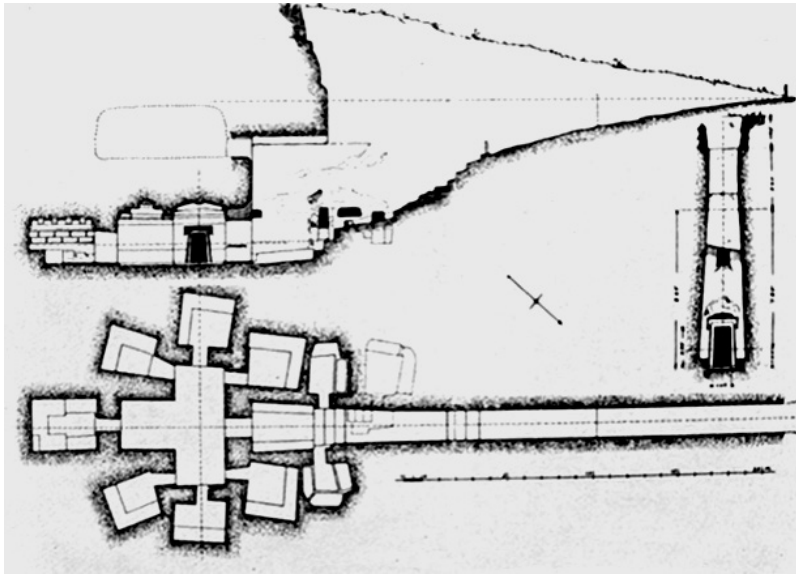


Fig. 5. Vulci, Tomba Francois. Plan and Section (A. von Gerkan, 1930).

Fig. 6. Detail of the Section (A. von Gerkan, 1930) (note the domed chamber).

Fig. 7. The dome (Photo Tampone, 2011).

1 dome in Tomba del Colle Casuccini, Chiusi; 4 domes in Tomba della Scimmia, Chiusi; 1 in Tomba di Poggio Gaiella, Chiusi; (? in Tomba del Leone, Chiusi ?); 3 in *Ipogeo dei Volumni*, Perugia; 1 in *Tomba Francois*, Vulci; 1 in *Tomba dei Tori*, Vulci; 1 in *Tomba dei Sarcofagi*, Vulci; 1 in *Tomba del pronao arcuato*, Vulci; 1 in the

“archaic” Tomb situated under the Ildebranda Tomb, Sovana.

There are other installations with similar devices, for instance the tomb of Sovana, later transformed in *columbarium*, that shows a system of domes therefore more similar to lacunaria; the major interest of this tomb

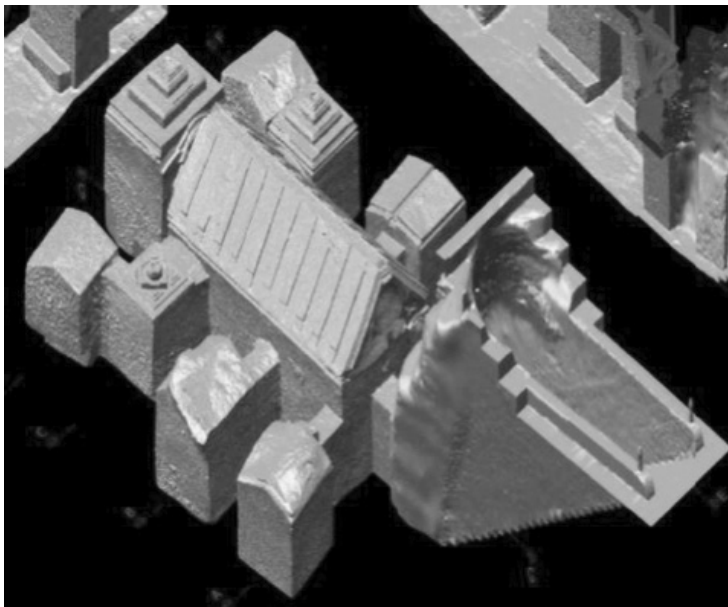


Fig. 8. Perugia, Hypogeum of the Volumni (late III c.; D. Blesch, 2006, Laser scanner 3D survey).

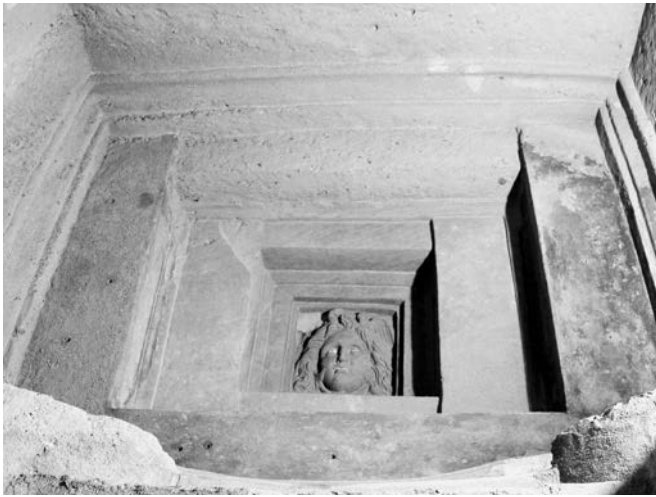


Fig. 9. Perugia, *Volumni*, the domes of the right and left side chambers (photo Tampono, 2011).



Fig. 10. Perugia, *Volumni*, the domes of the right and left side chambers (photo Tampono, 2011).

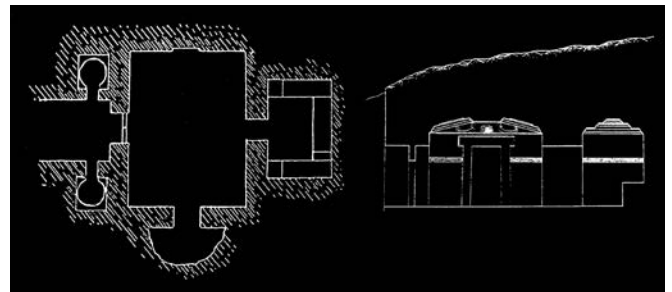


Fig. 11. Chiusi, *Tomba della Scimmia*. The double dome of the atrium. (F. Remondino et al., 2011, Laser scanner 3D survey).
 Fig. 12. Chiusi, *Tomba del colle Casuccini*, Plan and Section (Archaeological Museum, Chiusi) showing a box ceiling in the atrium and a corbelled dome in the final chamber .

is constituted by the fact that one of these cavities is delimited but it was never excavated. The Tomb of Marce Ursus in Cerveteri, that has a similar arrangement in the vestibule, has perhaps to be added on the list.

Similar architectural types are to be found in Bulgaria, Georgia, Azerbaijan and adjacent countries.

Other tombs are covered by simulated ceilings of pretended timber floors.

3. Built tholoi

In some false hypogeal constructions, covered by an earthen tumulus also following the tradition of the Megalithic constructions of the late Neolithic (for in-

stance, funeral settlement of Los Millares, Spain, where also central pillars are present; funeral settlement of Newgrange, in Ireland) and that of the Mycenaean typology (tholos tombs of the Argolis region, Messenia, Achaia, Attica, Thessaly in Greece), the final chamber is covered by a stone *tholos*, i.e. a domed construction built with the technique of the corbelling. The tholos of the nuragic Sardinia are built in the same way.

The tholos type dome is built till the present time.

A rough list of the main Etruscan tholos Tombs is given here for the territory of Populonia (largely inspired by the Romualdi's paper cited in the references, that contains an archaeological description of the single settlements, and by other sources); it ranges from specimens of the Villanovian civilization (IX c. b.C., Iron

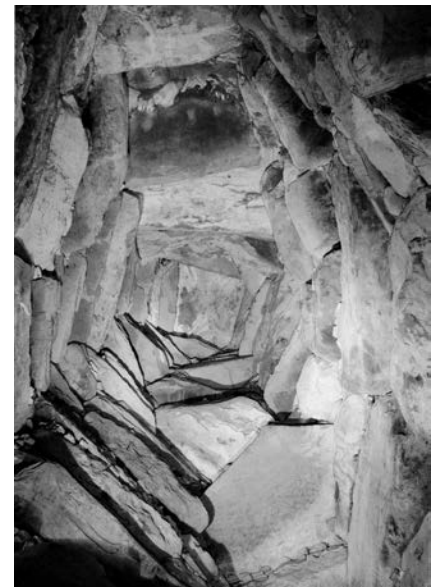
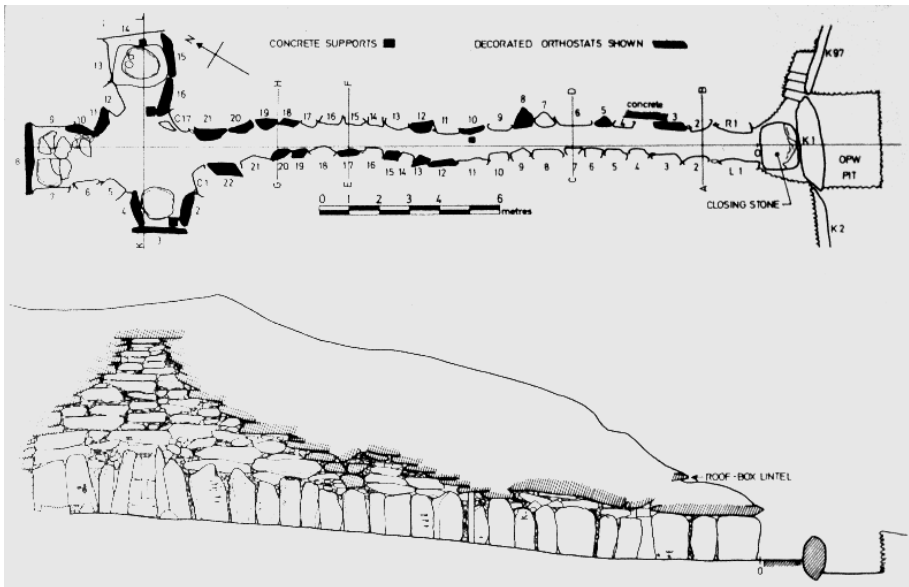


Fig. 13., Fig. 14. Funeral complex (tomb and tumulus) of Newgrange, Ireland. Plan and longitudinal Section (O’Kelly,1982). Photo of the dome covering the last chamber.

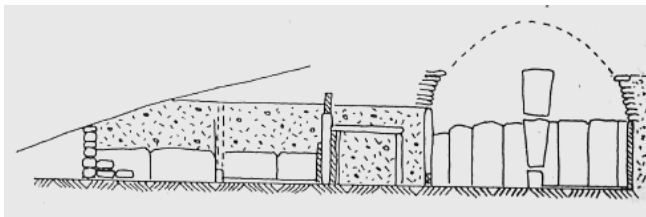


Fig. 15. Los Milares settlement, Spain.

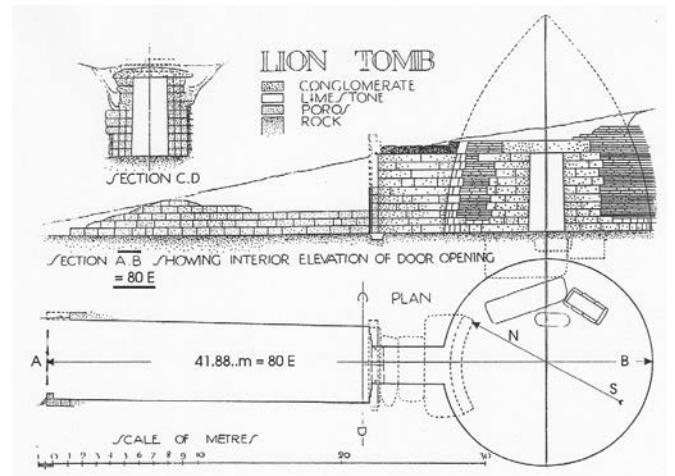


Fig. 16. Lion Tomb, Mycenae (XIV c., diameter of the tholos c. 15 m) (from Wace, 1923).

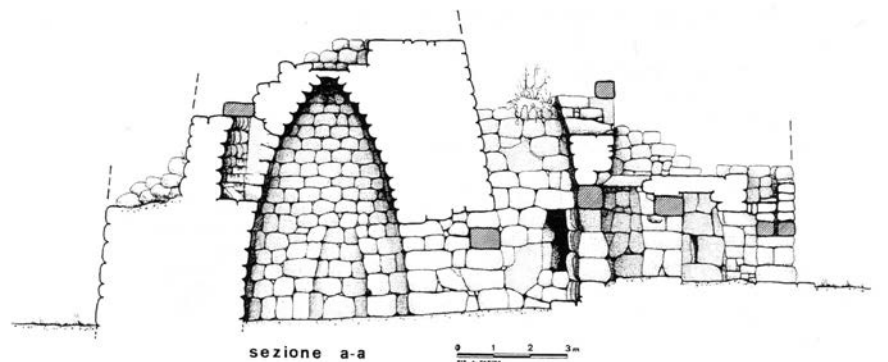


Fig. 17, Fig. 18. Alghero (Sassari, Sardinia), section of the ancient tower

Age) up to the *Periodo Orientalizzante* (VII, VI c.) with indication of the date (the datation is based on use). None of the Populonia specimens has a central pillar.

Note that the collapse of the tholoi or of the whole tomb of a considerable number of funeral settlements at Populonia, together with their discovery, is mainly due to extensive excavations of the area in the period from 1920 to 1959 and the consequent passage of heavy means occurred in that occasion, in order to recover the scoriae, still rich of iron, that covered the soil as a result of the Etruscan working on the spot of the ore imported by the Elba island.

San Cerbone necropolis

- monumental Tomba *dei Carri*, tumulus with cylindrical *crepido* (tambour), half of the VII-beginning of the VI c.
- Tomb *dei letti funebri*, II quarter VII-beg. VI
- Tomb 8 (old designation), tumulus with *crepido*, tholos collapsed on square chamber, half of the VII – first half of the VI
- Tomb *del Balsamario a testa di Guerriero*, tholos destroyed, tumulus with cylindrical *crepido*, half VII- first half of VI
- Tomb *dell'Aryballos piriforme*, tholos collapsed, tumulus with *crepido*, half VII-first half VI
- Tomb 7 or *delle pissidi cilindriche*, tholos destroyed on square chamber of 3,40 m circa, tambour, with entrance body, second quarter VII-beginning V (drawings in Romualdi)

Necropolis of the Casona

- Tomb 12, tholos collapsed on square or rectangular room, tumulus with *crepido*, half VII – first half VI
- Tomb 13, tholos collapsed, tumulus without *crepido*, second half VII-third quarter VI
- Tomb 14 tholos collapsed, tumulus without *crepido*, second half VII-third quarter VI
- Colatoi, Tomb 15, tholos on square chamber, tumulus without *crepido*, 3rd q VII-3rd q VI
- Tomb 16, tholos collapsed on squarish chamber, tumulus with *crepido*, surviving pendentives, h. VII - h. VI
- Tomb 17 (E) tholos on square chamber collapsed, tumulus without *crepido*, surviving pendentives, 2nd h. VII-3rd q VI
- Tomb 55 with entrance body, tholos on square chamber collapsed, surviving pendentives, h. VII-h. VI
- Tomb 56, tholos collapsed, tumulus with *crepido*, h. VII-h. VI

Poggio della Porcareccia

- Tomba 63, half destroyed, with *crepido*, h. VII – h. VI
- Tomb *dei Flabelli* (64), intact, tholos on square chamber, h. VII-h. VI
- Tomb *delle Oreficerie*, 65, intact, tholos on square chamber, tumulus with *crepido*, 2nd q VII-3rd q. VI
- Tomb della *Spirale d'oro per capelli* (66), intact, tholos on square chamber, tumulus without *crepido*, 2nd h. VII – 3rd q. VI
- Tomb of the Ariballoi (67), tholos collapsed, tumulus without *crepido*, 2nd h. VII-1st q. VI

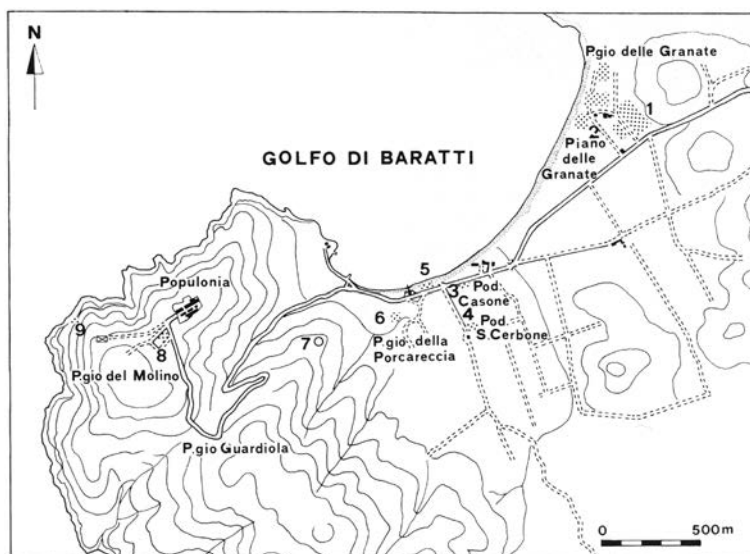


Fig. 19. Distribution of the Iron Age settlements in Populonia and location of the settlements (Fedeli, 1993).

Poggio del Conchino

– Tomb 68, collapsed, tholos destroyed, tumulus with *crepido*

Poggio delle Granate (Villanovian Necropolis)

– Tomb *dei Rasoi lunati*, of the kind *a camera*, the oldest tholos example (2 h. IX), known in Etruria

Campo dell'Arpia

– Tomb with tholos, tumulus with *crepido*

Poggio Malassarto?

Piano del Felciaieto

– an indeterminable number of tombs with tholos and entrance body, a few with *crepido*

Costone della Fredda

– Tombs with tholos, tumulus without *crepido*

Some tombs of this group are shaped with an elliptic chamber therefore the covering is a half ellipsoid (Romualdi, s.d., Fedeli, 2000): for instance tomb 4 of Poggio del Molino o del Telegrafo.

Random specimens with tholos are to be considered: q1 tomb, last decades of the VII, in Ripaie, Volterra (Bruni, Camporeale, 2000); tholos tomb (Fiumi, 1978; Bruni 2000) partially hypogeal with rudimental pendentives, in the area Colombaie, Le Balze, Volterra; tumulus with tholos tomb of Ghincia (Bruni 2000, cit.), end VII, near Bibbona; tholos tomb of Belvedere (Bruni, 2000); tholos (Colonna, 2000, cit.) in the great enclosure of Roselle.

An indeterminable number of tholos tombs (Fedeli, 2000, cit.) are to be found amongst the chamber tombs, in the Valdera area, in the middle Cecina valley and in the relative coastal strip.

To this list the following monumental settlements out of Populonia with final chamber covered by a tholos are to be added: Tombs of Montagnola and Mula, both in Sesto Fiorentino; of Casaglia and of Casale Marittimo, Cecina; Diavolino and Pietrera, Vetulonia; Montefortini, Carmignano; Fonterutoli, Castellina in Chianti; all of them were built in the *Periodo Orientalizzante*. Mostly have a central pillar that has no structural function in relation to the structure of the *tholos* except for the fact that it carries on top a great slab, external to the

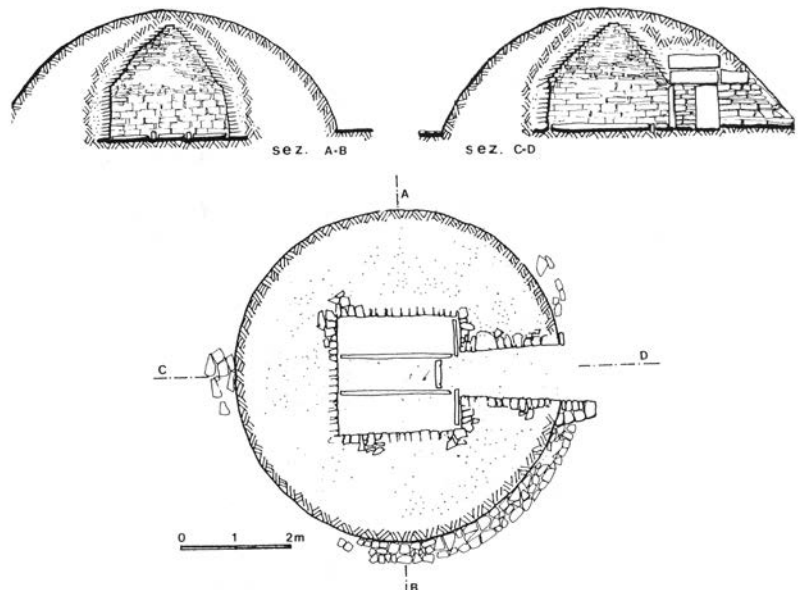
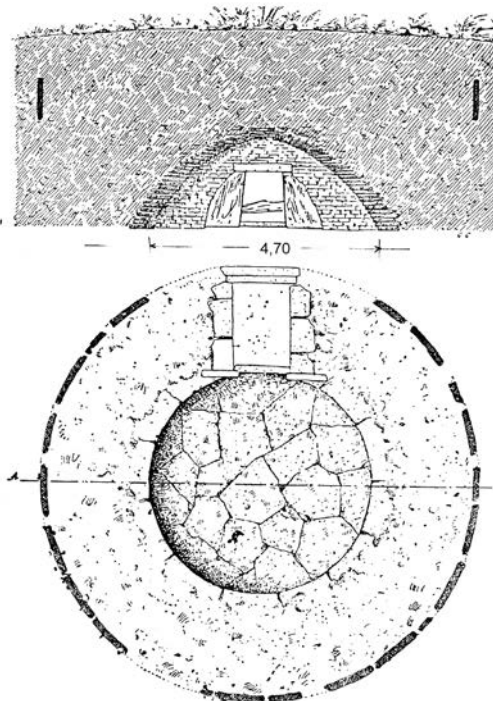


Fig. 20. Tomba dei rasoi lunati, Populonia, Iron Age (from Minto, cit.).

Fig. 21. Populonia, Tomba dei Lavatoi (da Romualdi, cit.).

tholos, as it was confirmed by apposite excavations on top of the Montagnola tomb. Furthermore a small tholos tomb in Velletri, supposed to be of the Iron Age and containing a villanovian urn, and the small tholos tomb of Fonterutoli, Castellina in Chianti.

Mula has the largest tholos in Etruria (almost 10 m), still standing though strengthened.

In the sites with square or rectangular chamber, pendentives are used at the corners to connect the *tholos* to the walls.

The exterior shape of the tumulus that covers the whole construction has, it too, the shape of a dome. Noteworthy the fact that the Etruscan *cippi* have similar shape.

In the Cerveteri tumulus tombs, there are no real domes but the skyline of the tumulus itself is that of a dome, as said before; the fact is to be interpreted as a means to adopt in any way the symbol of the dome.



Fig. 22. Chamber tomb. Populonia, Fosso dei lavatoi (from Fedeli, 1983).

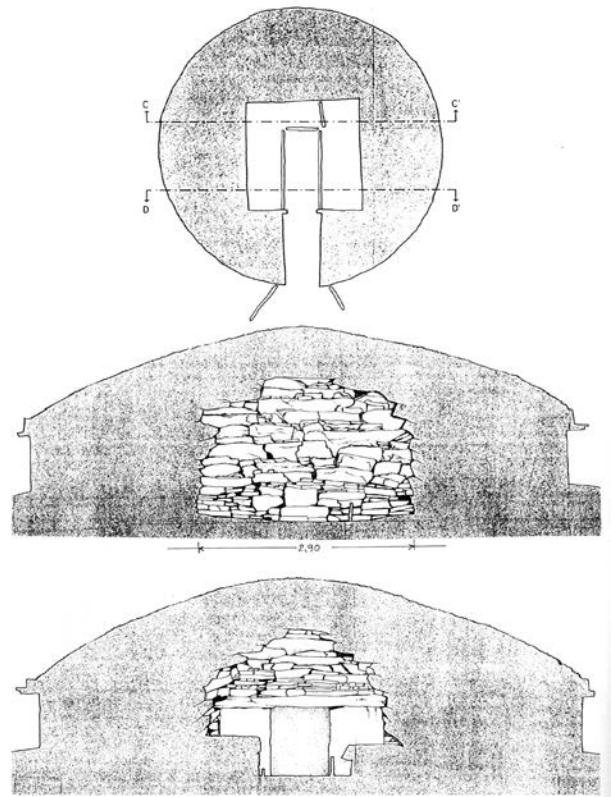


Fig. 23, Fig. 24. Populonia, Tomba delle oreficerie (Survey R. Bernardini, T. Bencivenni, directed by G. Tampone, 1999).

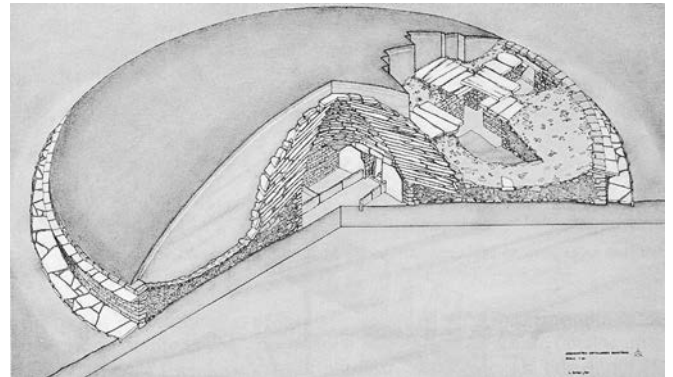


Fig. 25. Tholos tomb of the Pissidi cilindriche, Populonia.

Fig. 26. Populonia, Tomba dei Carri (survey L. Barbi, 2000).

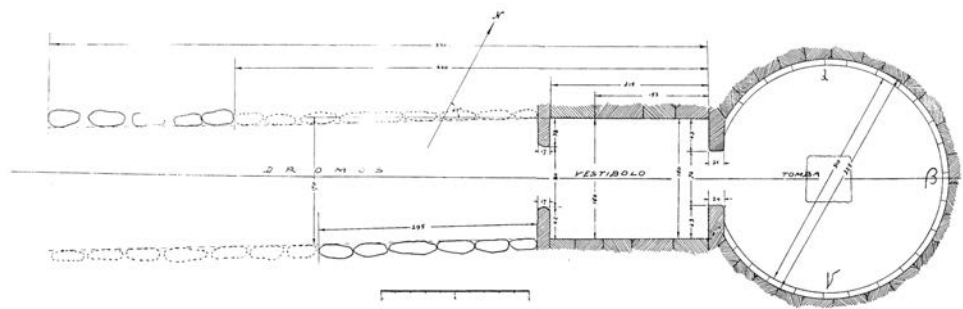
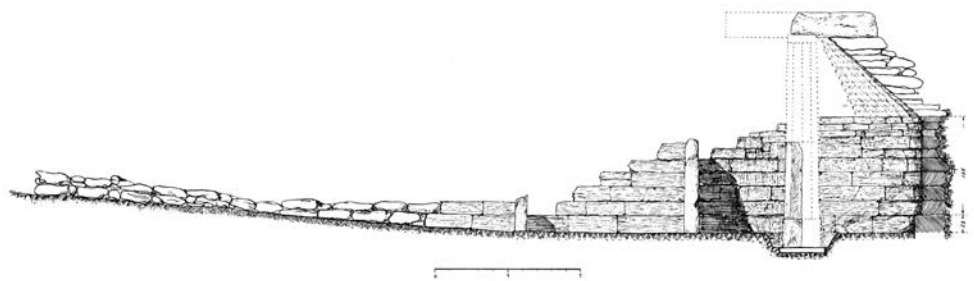


Fig. 27. Casaglia, Cecina, Pisa, Tholos tomb, with central pillar and conical dome (from Mingazzini, 1914).



The ceilings of the chambers of the tombs of Cerveteri are flat and they generally simulate timber ceilings; that leads to imagine the pretended presence of a garret (as in the the *dado* tomb of Tuscania, sculpted in the rock in the shape of a house, and the Hellenistic Tomba Ildebranda of Sovana, also sculpted in the rock in the shape of a temple) or the presence of a floor and of an upper storey.

Nevertheless, the chambers of a few settlements are covered by simulated timber half domes that show a conical shape.

Noteworthy the excavated entrance of the Cerveteri's tombs, open at the top, devoid of the front side; they simulate the same corbelling construction.

Other tombs are covered by simulated ceilings as intrados of timber roofs or floors.

Fig. 28. Tomba del Diavolino with base of the central Pillar, Vetulonia.

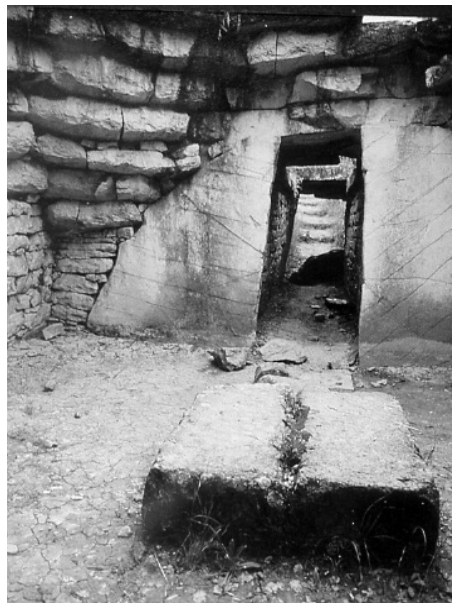


Fig. 29. Casale Marittimo, tholos tomb (now in the Florence Archaeological Museum) with central pillar (from Minto).

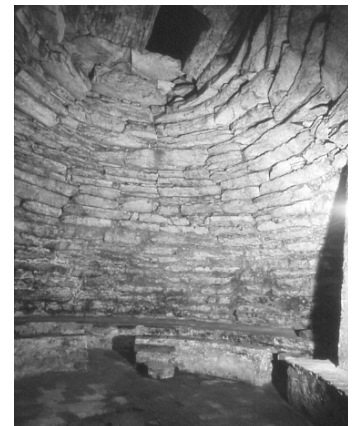
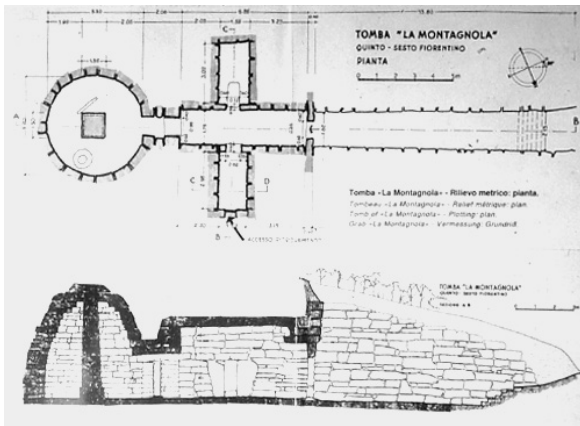
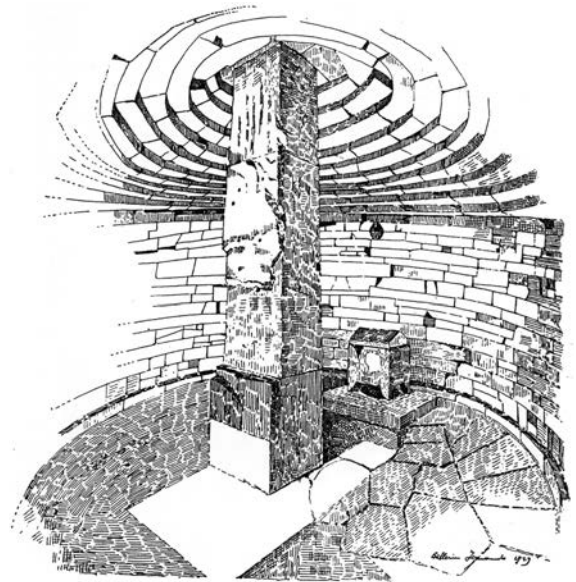


Fig. 30, a and b. Funerary complex (Tumulus and Tholos tomb with central pillar, megalithic characteristics) of Montagnola, Sesto Fiorentino (drawings by Chiostrì and Mannino, 1960) and photo of the tholos (Tampone, 2012). The entrance has a relieving arch but filled in with slabs.

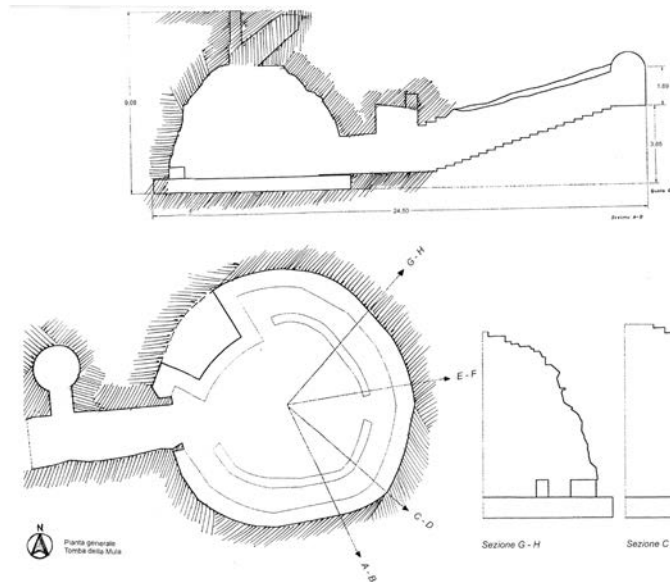


Fig. 31. Tholos of the Mula Tomb.

Fig. 32. Funerary complex of Mula with tholos chamber once equipped with pillar, now disappeared. Sesto Fiorentino, Florence (drawings by Andren).

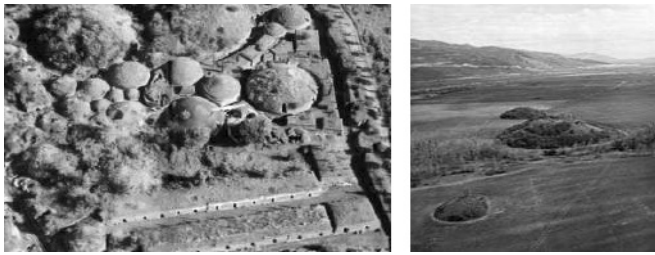


Fig. 33. Cerveteri, Necropoli della Banditaccia, aerial view of the tumulus tombs.

Fig. 34. Shipka, Bulgaria, group of Thracian tumuli (Gurrieri, 2012).

Parallels can be traced with the Thracian tombs under tumulus, equipped with tholos, built in the country presently occupied by Bulgaria, in the IV-III c. b. C., with those of Crimea and in the close by regions; they have been probably made following the same Mycenaean tradition that had influenced the Etruscan ones, apparently without any direct suggestions by the latter.

1. Conclusions

The Etruscan dead were hearted in true or false hypogeal tombs.

The use of domes in the Etruscan funerary architecture is more diffused than we thought; the presence of domes in a settlement is to be interpreted as a demand for distinction.

The classification of a few lacunaria not as ceilings but as true domes throws a new light on the Etruscan funerary architecture demonstrating that the use of the symbol of the dome was widespread. In an ideal comparison of the two main kinds of dome here described, the timber and the stone ones, it is evident that, by a structural point of view, they belong to the same concept of the corbelling construction; only the number of sides change. The excavated cavities rely, for their standing up, on the rationality of the “construction” and on the solidity of the rocky soil.

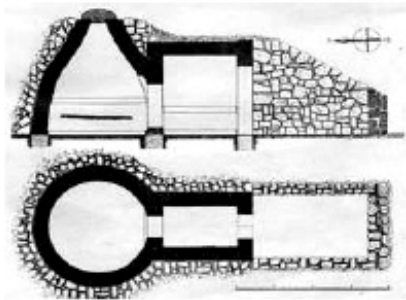


Fig. 34. Kazanlak, Bulgaria, funerary complex with tholos chamber (from Gurrieri, 2012).

Fig. 35. Kazanlak, Bulgaria, Demonstration of the building system of the tholos on a square base (photo Gurrieri, 2011).



Figs. 36, 37. Aleksandrovo, Bulgaria. Interior and details of chamber and tholos (from Gurrieri, 2012).

The real difference between excavated tombs and false hypogeal tombs is that the second were really built with stones and only the interior was arranged to be seen, therefore it was well refined with a facing, sometimes decorated; the exterior sides of the real edifice were left rough for the better matching of the artificial soil of the tumulus, in order to increase the stability of the whole construction.

The present acquisitions of the research on the tholos lead to outline the following schematic sequence: Western European countries (mainly Spain, France, Ireland), Cycladic Islands and Crete, Mycenae, Messenia, Achaia, Thessaly, Etruria, Thracian country and eastern close by territories, directly or indirectly influenced by the Mycenaean tradition expanding across and around the Black

Sea. The Mesopotamian expressions are always of very modest dimensions. The Sardinian tholoi were not built for funeral purposes but used in the *Nuraghi* and as a sacral protection of water sources and wells or in “*rotonde*”.

The Etruscan tholoi tombs are also inspired by the great megalithic complexes that had been built in Western Europe in the V, IV millennia.

When building with stones, the vault and the dome are the only possible alternative (Colonna, 2000) to the very limited development possibilities offered by a flat roof, horizontal or even inclined of the common tombs.

The corbelled dome, in its manifold variants, is the distinguishing constructive organism of the European building activity since the dawn of civilization.

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