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Excavations at the Torre di Donoratico, Italy
(2003-2004)

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*An Etruscan and Roman
hilltop settlement.
Excavations at the
Torre di Donoratico, Italy
(2003-2004)*

BY ANNA GALLONE, MARCELLO MOGETTA, DANIELE SEPIO

INTRODUCTION

The excavations at the Torre di Donoratico began in 2000 as part of a big project co-sponsored by the University of Siena in collaboration with the University of North Carolina at Chapel Hill. Since then, regular excavation seasons have been carried out every year by both teams¹. The present article will deal with the results of the first two seasons of investigations of the Etruscan and Roman levels. It contains a first and tentative interpretation of the findings at the Torre di Donoratico (henceforth abbreviated as TDD) and in the lower Cecina valley between the 4th c. BC and the 4th c. AD, thus focusing on the issues related to the outcome of the Roman conquest and on the debate about the late Roman period. The site appears to be of considerable importance as it retains traces of periods traditionally considered to be of decadence or even total abandonment in this area of the peninsula.

The TDD site is located on a hilltop, about 3.5 km from the sea, on the Tyrrhenian coast of northern Etruria, in Tuscany (FIG. 1). The hill is on the southern edge of the valley of the lower Cecina river basin, and it is the highest peak towards the coastline, awarding to the site a privileged position overlooking both sea and inland. The prominence of the site is well-known for the Medieval time, when a fairly large and important castle, the tower of which is still partially standing today, occupied the hilltop². After the abandonment of the castle in the 15th c. AD, the hilltop and the surrounding area reverted to woodland and remain so today. It has been known since the eighteenth century, however, that the plateau had pre-Medieval occupation traces; portions of a massive fortification wall had been identified underneath the Medieval wall circuit, as well as rock cut tombs on the northern slope of the hill. All of this had been interpreted as evidence of a fortified Etruscan settlement preceding the Medieval castle. The archaeological survey carried out on the hilltop and surrounding areas in the 1980s confirmed that it had a well-attested Etruscan as well as Late Roman phase³.

The archaeological investigation began in 2000, when limited soundings were carried

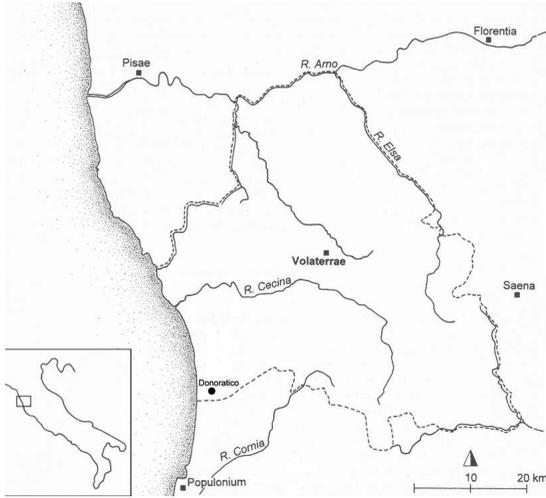


figure 1 – general map of Italy, with window on the Donoratico area.

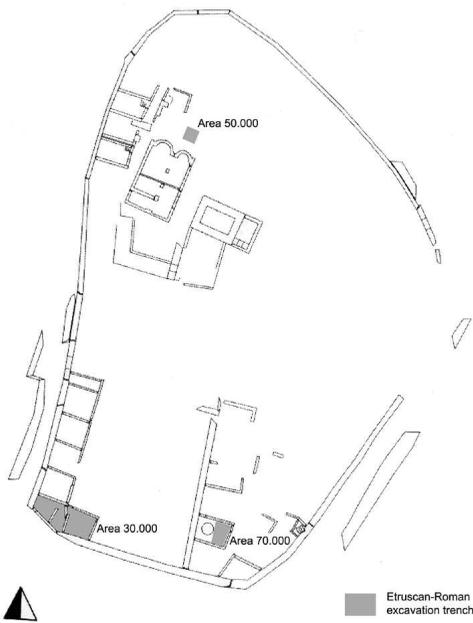


figure 2 – general map of the site with the trenches (re-elaboration after Bianchi 2004)

and is located next to the south-western corner of the Medieval fortifications, where one of the portions of the so-called Etruscan wall has been identified. Trench 50.000 is, rather, positioned on the highest part of the plateau next to the tower, in an area where the deep erosion had already brought to light the natural bedrock; here, the investigation was limited to a large artificial cut in the bedrock. Trench 70.000 is in the south-central part of the site, and

out to estimate the preservation of the archaeological evidence, under the direction of the late Prof. R. Francovich of the University of Siena (Dipartimento di Archeologia e Storia delle Arti, Area di Archeologia Medievale). Large and complex structures belonging to the Medieval age were uncovered then, furthermore confirming that pre-Medieval occupation levels were well represented and preserved under the later remains. Starting in 2001, large areas of the plateau have been excavated and since 2003 the University of North Carolina at Chapel Hill, with a team directed by Prof. N. Terrenato, was invited to investigate the pre-Medieval features. The collaboration of the two teams aims at reconstructing the long-term history of the site from its first occupation down to the present day. The Medieval evidence is being studied by the Siena team⁴, while the pre-Medieval one by UNC⁵.

The site is located on the higher of two summits of the Donoratico hill, geologically composed of sandstone and siltstone rocks⁶. Eight large trenches had been excavated in different parts of the hill-top over the years⁷. The pre-Medieval levels are being investigated in three trenches located respectively on the northern, southern and south-western sides (FIG.2), providing samples of the entire site⁸. The south-western trench (30.000) is the most extensive

is delimited by a Medieval building. This is the area, which has preserved the thickest archaeological deposit, as proven by some preliminary boreholes; the excavation revealed a pre-medieval sequence of 3.2 m in depth⁹.

Up to now, it has been possible to identify at least five main phases, ranging from the late Archaic times to the late Imperial period. It is important to stress that the site had an impressive continuity of occupation, as proven by the fact that the findings are chronologically distributed along this time-span¹⁰. The earliest archaeological features identified so far are represented by a group of residual pottery sherds dating between the second half of the 6th and the first half of the 5th c. BC, but no other evidence allows to have a picture of the site at that time¹¹. Substantial human occupation is detectable from the second half of the 4th c. BC, when the plateau was probably completely surrounded by a fortification wall. To the same period is dated the cut in the natural bedrock, probably a cistern for the collection of rainwater, located on the highest part of the hilltop. The only archaeological remains of a building are represented by a series of postholes in the southern trench. It is therefore likely that the whole plateau was occupied in this phase, even if it is still too soon to further define the late Classical - early Hellenistic settlement. In the middle Republican period the site was extensively reorganized. The fortification walls were partially reconstructed or restored, at least on the south-western corner. At the same time, in this part of the plateau, structures for the collection and redistribution of the water were built, namely a cistern with two small drains running towards it, which were associated with beaten-earth floors; while the rock-cut cistern was transformed into a rubbish dump. In the south-central part of the hill, a large sunken *dolium* was placed at this time.

It is possible that the site witnessed a short and minor crisis in the late Republican period, but in the Augustan age it certainly flourished again. The hydraulic structures were restored, monumentalising them with squared stone block structures, mortar and *opus signinum* floorings. The *dolium* appears to have been obliterated. The features just described, and dated to the late 1st c. BC, were in use for quite a long time, attesting occupation of the site with few modifications during the early and middle Imperial period.

After the 4th c. AD the evidence of occupation becomes very scanty, suggesting that the hilltop of Donoratico was abandoned or very sparsely inhabited. Occupation is strongly attested again from the end of the 6th c. AD, according to the latest findings, and by the 8th c. AD the hill top had developed into a quite extensive wooden hut village; the construction of the church and connected burial ground dates to the 10th c. AD¹².

Notwithstanding the obvious limitations of data coming from separate trenches, the sheer evidence definitely points to an impressive socio-economic complexity of the site spanning a long time. This is in dramatic contrast with the generally accepted picture of the human landscape of coastal northern Etruria during the Roman Republican and Imperial times, especially on hilltop sites. What is at stake here is the possibility of archaeologically detecting the processes eventually leading to the creation and development of the Roman Empire and the real nature of the impact it had in these micro-regions of Italy. Furthermore, this site offers the opportunity to look closely at the long-term developments of the socio-economic organization from the antiquity to the Medieval age¹³.



figure 3 – view of the trench 30.000



figure 4 – view of the cistern (trench 50.000)

TRENCH 30000

The trench is located around the southwestern corner of the TDD hilltop. The excavation area is delimited by the outer walls of two Medieval buildings, which abut the fortifications (FIG. 2)¹⁴.

The earliest traces of occupation and activity brought to light can be assigned to the middle republican period (3rd-2nd c. BC). The most important feature is related to a partial reconstruction of a short stretch of the pre-existing fortifications encircling the settlement¹⁵. This probably followed a destruction, which at the moment it is not possible to ascribe to a specific event (either natural collapse of the existing structure or sudden intentional destruction). However, the date of the reconstructed wall gives a *terminus ante quem* for the chronology of the pre-existing circuit. Remains of the earliest fortifications are recorded right underneath the Medieval circuit also on the south-eastern corner of the plateau, while on the eastern and

northern sides of the hilltop the Medieval fortifications almost completely replaced them. It can be argued that the pre-Medieval circuit did not differ much from the Medieval one, following the geomorphology of the plateau and thus encircling an overall area of more than 8000 sq. m.¹⁶.

The rebuilding of the fortifications is strictly connected to a contemporary reorganization of the whole area. A functional complex was arranged here, mainly dedicated to the collection and storage of water, an absolute must on a hill with no natural springs. The ground level of the area was raised¹⁷ and a major drainage system running from East to West was laid across the eastern part of the area (FIG. 3), while a minor drain running from north-west to south-east was built on the western part¹⁸. The drains were connected to a reservoir, which is not actually visible, since another one replaced it in the following phase (see below); its location can still be inferred from the slope of both drains. The surrounding area was arranged with beaten-earth floor¹⁹.

In the early Augustan age²⁰, this part of the settlement underwent major construction activities, which in any case did not alter its main function. The pre-existing structures were monumentalized, introducing here for the first time massive use of mortar into the building techniques. These activities did not involve the fortification wall, which was still visible and in use at this time.

The reservoir was heavily restored, or perhaps totally rebuilt in some of its parts²¹. Two projecting wings were added on top of the raised ground level on the western and eastern sides of the structure. These wings were surrounded by square stone blocks delimiting a lower floor, cobbled with alabaster chips (FIG. 3)²². It is worth noting that on the north-eastern limit the base of a column or pillar was inserted in the foundation trench for the blocks. The area around the cistern was paved with levels of flat broken roof tiles²³.

Clearly this newly built monumental structure is once again related to the collection and redistribution of water on the top of the plateau. Two different reconstructive hypotheses can be advanced. The structure recalls the typical underground cisterns that are widely known in the region²⁴, even though we have no trace of a vault, suggesting that it was probably open, at least in part. On the other hand, the monumentality of the whole layout, the presence of the surviving column base, and the opus signinum floor all point to the existence of a monumental fountain. If this is the case, we can then tentatively reconstruct it with a balustrade²⁵ running around the edges of the open water basin and a colonnade on the front of the two wings, where probably the outing pipe was located²⁶. The architectural layout of blocks and surviving column together with the spatial relation with the cistern fit in the typology of fountains with attached reservoirs²⁷; water could thus be collected from the sunken opus signinum floor accessible either from the northern side or both the eastern and western sides²⁸. The structures described above were apparently in use without



figure 5 – view of the postholes (trench 70.000)



figure 6 – view of the sunken dolium (trench 70.000)

change throughout the Imperial age. The obliteration of the cistern and its connected spaces only happens in the 4th c. AD²⁹.

TRENCH 50.000

The investigation of the pre-Medieval levels is limited here to a small area, next to the apses of the Medieval church and to the upstanding tower. Since this is the highest part of the plateau (see above), which suffered the deepest consequences of natural erosion, very little stratigraphical sequence has been preserved, and in fact, the bedrock is outcropping almost everywhere under the modern ground level. The cleaning up of the area brought to light substantial traces of human occupation³⁰ right on top of the bedrock; unfortunately this evidence is difficult to interpret and date because of its very nature. Most of the times, these features have been related to the Medieval settlement because of the artifacts found, although it is impossible to rule out that some of the pits, drains, or walls were merely reused in later periods, but originally belonged to the Etruscan/Roman phases. The amount of residual Etruscan-Hellenistic and Roman pottery found in the late Medieval levels, and the characteristics of some of the evidence uncovered seem to confirm a very early occupation of this space³¹. The trench is delimited by a large rectangular cut in the bedrock (FIG. 4), which in the Medieval phases was used as a church graveyard.

The fills of the cut³² have been dug to a depth of approximately 2 m³³. Despite the lack of either chronological or stratigraphical conclusive evidence, the cutting of this feature can be assigned to the earliest Etruscan phase. It was, in all likelihood, a cistern for the collection of rainwater, like other similar structures found on Etruscan hilltop settlements³⁴. By the middle Republican period (3rd - 2nd c. BC) the cistern lost its original function and was probably abandoned³⁵. At the beginning of the 2nd c. BC³⁶, this area was used as a dumping site either for domestic rubbish or building material debris. The latter might derive from the destruction of buildings located nearby on the hilltop³⁷. This is the latest pre-Medieval level investigated, because the Medieval communal burial ground cut partially into it³⁸.

TRENCH 70.000

The trench is located in the south-central part of the plateau (FIG. 2) and the excavation was carried out within an area delimited by a Medieval building³⁹. The natural bedrock uncovered here is topped by a thick natural deposit showing no trace of human occupation⁴⁰. The earliest archaeological features are represented by four fairly large post-holes, aligned on the eastern limit of the trench (FIG. 5)⁴¹. The post-holes are probably related to a wooden structure which must be extending from the line of the postholes towards East, as proven by the absence of an associated surface on the other side. The structure dates to third quarter of the 4th c. BC⁴², but unfortunately it is not possible to further specify its extension and function.

In the next phase (during the 2nd c. BC) a beaten-earth floor was created and a large *dolium* was sunk into the surface (FIG. 6)⁴³, suggesting a larger food storage area. The *dolium* was obliterated in the 1st c. BC and the area was covered by a beaten-earth floor

bearing evidence of anthropic activities; this was in use up to middle Antonine age. After this date the floor levels were dramatically raised with a thick silty deposit⁴⁴. On this newly created surface modest structures, bearing witness of a partial reoccupation, were built⁴⁵. A new beaten-earth floor and a wall date to the very end of 2nd c. AD and were in use till the 4th c. AD⁴⁶.



figure 7 – view of the N half of the mortar mixer (trench 70.000)

Successively, a wall made with roughly cut stones and a round mortar mixer⁴⁷ were created. The mixer (FIG. 7)⁴⁸ is slightly sunken in the floor over a thin layer of rubble covered by thick, white, good-quality mortar. On the surface, irregular concentric grooves are visible, and in the centre a posthole that probably supported a wooden pivot⁴⁹. Mortar mixers of this type are well known from sites in Northern Europe and Italy, but they do not date before the 8th c. AD⁵⁰. The chronology of the structure is unclear, as it is sunken into a level that dates to the 6th c. AD⁵¹, but could well be connected with later Medieval horizons. C14 dates have failed to resolve the issue⁵². If the mixer were really Late Antique, it would represent the very earliest attestation of the type. If, as it seems much more probable, it is early Medieval, it would be more in line with what we know of these structures. The Siena team will further investigate and publish the structure.

CONCLUSIONS

As shown by this interim report the site of TDD appears of remarkable importance even at this early stage of the research. A general contextualization of the site in a broader picture of the settlement history on the coasts of northern Etruria will be attempted here, based on archaeological elements such as monumental structures and other artefacts found on the whole extension of the plateau.

In the Etruscan period (4th c. BC)⁵³, the site is already thoroughly occupied: the construction of the massive defensive walls encircling the whole extension of the hilltop, as well as the cutting of the cistern in the bedrock, can be considered strong evidence of its vitality. Another element that points in the same direction is provided by the impressive quantity of artefacts recovered virtually everywhere in the settlement. It has already been said that the highest concentration of ancient pottery was found next to the Medieval church, but it must be added that all the investigated areas produced residual pottery of this age. About a dozen black glaze and impasto sherds bearing graffiti inscriptions in Etruscan alphabet can be singled out among the artefacts; most of these have more than three letters⁵⁴. This data together with the length of the walls and the building inferred from the large postholes, clearly suggest a big

settlement. In other words, this means that the inhabitants of the hill of Donoratico had access to substantial economic resources, and that they controlled part of the nearby territory. It can then be concluded that in this early stage the site was a prominent one in the surrounding landscape, being part of a relevant trade network. The local demand for quality products was fulfilled through a network, which granted the supply of imports, such as the southern Italian wine as attested by the large number of Graeco-Italic amphorae sherds found in the excavation. The status of the inhabitants of Donoratico can furthermore be perceived in the aforementioned two rock-cut tombs located on the south-western slopes of the hill⁵⁵. The tombs are isolated, not being part of a larger necropolis, and their position is next to the access route to the settlement, this indicates a distinct choice of a family group that wished to be singled out. The entrance of the tombs is through a long *dromos*, leading to chamber with funerary benches on both long sides, a type well attested in the region⁵⁶. Unfortunately, it is not known what sort of grave goods were looted from the rock-cut tombs but according to what has just been said it can be deduced that they belonged to elite inhabitants of the settlement. In the following Hellenistic-Republican period, Donoratico maintains its privileged status and shows no signs of decadence, and in fact it seems to improve in some of its aspects. The fortification wall is partially rebuilt, and at the same time the settlement seems to undergo a spatial reorganization. This is indicated by the sunken *dolium*, suggesting a food storage area in this part of the plateau. Similarly, the construction of the reservoir associated with the drainage system is probably intended as a rationalization of the water supply. Moreover, the artefacts show that the site continued to participate in the global Mediterranean trade⁵⁷.

Major changes can be detected in the Augustan age. The human occupation on the hill not only continues, but there is even a monumentalization of the structures. Notwithstanding the fortification walls had lost their defensive function, they are maintained either with a containing function or more importantly as a symbol of the high status of the settlement. The reservoir is transformed into a monumental fountain with the use of choice architectural elements and building materials. Presence of elites at TDD is clear from these forms of self-representation. From this period onwards, the settlement and its structures are steadily in use and there is basically no evidence of changes in the investigated areas. The fact that the fountain is only filled in around the 4th c. AD, and that the pottery found in the Imperial occupation levels covers the entire Roman Imperial period, definitively indicates a continuity of about four centuries. It is only later that the site may have been abandoned for a while⁵⁸.

Once we contextualize the situation at TDD into a broader historical picture, the results are in many ways striking. It is hard to fit this case into the traditionally and generally accepted sequence of human occupation in Northern Etruria from the Etruscan age to the Roman times. According to the latter, the first Etruscan occupation would be normally limited to the hilltop sites, whereas it is only in the Hellenistic period that farmsteads would dot the lowlands. This organization would be challenged and eventually subverted by the Roman conquest. In the Republican period, the hilltop sites would be totally abandoned and the system of the rural settlements on the coastal plains would enter into a long decadence and would be in the end completely replaced by villas. The new Roman model would deeply affect the traditional socio-political and economic patterns. The crisis of the western Roman Empire and the following period of warfare would transform once again the human land-

scape of Tyrrhenian Italy; the rural sites would be deserted while the hilltop sites would be again occupied⁵⁹, as a consequence of danger and fear brought by the Gothic conflict⁶⁰.

The archaeological surveys carried out in the Cecina valley between the '80s and the '90s, have already shown that the reality is more complex than this. On the coast⁶¹, only few Hellenistic farms were actually abandoned and the *villa* system apparently took over with no major changes until the Late Antique period⁶². Inland, closer to the urban centre of Volterra, the Roman transformation is almost undetectable; the Hellenistic rural sites survived up to the Gothic war⁶³. What it is known about the development of Volterra itself has been used to argue that the impact of the Roman conquest was not so traumatic⁶⁴. The settlement trends of the coastal site of Donoratico are largely consistent with the reconstruction of the human landscape of the internal areas. Donoratico was never abandoned from the Etruscan period to the 4th century AD, showing an incredible continuity and development: at present, this is the only known instance of such a site. For this reason, it is not easy to include it into a wider perspective. It definitely implies that the territorial organization in the Roman times was much more complex than usually thought. Local power groups renegotiated their position within a new socio-economic system that allowed the survival of traditional settlement patterns. The outcome of such a strategy granted not just a survival, but an effective vitality of an economic system that was able to adapt itself to the changed situation. This explains the steady continuity and flourishing of the site of Donoratico through the early and Imperial times in a well established local economic network within a regional system.

To sum up, the new evidence from Donoratico gives the opportunity for a new reflection on the aftermath of the Roman conquest of the Italian peninsula within the ongoing archaeological and historical debate. At the same time it contributes to a diverse interpretation of socio-political and economic development of central Tyrrhenian Italy in the Imperial age. Moreover, it will help to achieve a more realistic picture of the ancient landscape leading to a better understanding of the cultural processes behind it.

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NOTES

1. For a general description of the project: *Castello di Donoratico* 9-12.
2. *Castello di Donoratico* 13-17; 139-148.
3. Terrenato and Saggin 1994, 465-482; Regoli and Terrenato 2000, 78-79. As part of the project presented here, A. J. Ammerman had undertaken a re-survey of the territory near the hill in the summer 2001.
4. The field director is Dr. G. Bianchi, who was assisted by M. Belli, S. Ceglie, G. Fichera, S. Liguori, M. Menchetti, M. Notardonato, F. Panichi.
5. A. Gallone with D. Sepio and M. Mogetta led the team, with the help of R. Opitz, M. Ratliff, K. Huntley, A. Tirincanti; the finds supervisor was H. Becker, with the help of A. Shelton. Students from the University of North Carolina and other American universities participated in the excavations.
6. Motta 1997, 245-246.
7. For a detailed description of all the trenches: *Castello di Donoratico* esp. Ch. 3.
8. These are the areas where the pre-Medieval levels have been brought to light so far, but we hope that in the future, when the Siena team has completed the excavations of the Medieval deposit, we will be able to expand the research in larger parts of the site.
9. A first series of boreholes was carried out in 2000 by the Siena team; a second one by a team of students of the Summer Program of the American Academy in Rome led by A.J. Ammerman, during the summer of 2001.
10. The study of the findings, notably the pottery sherds, is still in progress for the archaic and

- Hellenistic-Republican phases; substantial data is instead now available for the late Republican and Imperial phases artifacts. The chronological indications here presented must be considered preliminary. On the Imperial artifacts, see Mogetta-Terrenato 2008.
11. For the pottery sherds see M. Pistolesi, “Contributo alla definizione delle fasi premedievali,” in *Castello di Donoratico*, 20, fig 1
 12. This is in accordance with the reconstruction of the earliest phases of the Medieval settlement investigated by the Siena team: *Castello di Donoratico*.
 13. Terrenato and Augenti 2000, 298-303.
 14. The whole trench measures 5.30 x 13.70 m.
 15. The fortification wall has been uncovered on the southern limit of the trench for a length of 2.50 m., running E-SE/W-NW. The original structure has been preserved on the eastern end of the wall and consists of at least 3 courses of roughly squared blocks of local sandstone (the so-called “macigno”), 0.8 m. high. The later feature is built out of rubblestone (mainly local sandstone and siltstone) and fragmented roof tiles bound with pure clay. The chronology for this feature (3rd-2nd c. BC) derives from the black glaze pottery sherds found in the shallow foundation trench dug to accommodate the portion of the reconstructed wall.
 16. According to the chronology of the earliest residual pottery found in the Medieval layers, it has been recently argued that the foundation of the settlement dates back to the end of the 6th c. BC or beginning of the 5th c. BC and, consequently, that the earliest fortifications might be contemporary (Pistolesi 2004, 24-26), but at the moment no archaeological evidence is available to determine a *terminus post quem*. For a more detailed description of the Medieval fortifications: *Castello di Donoratico* 31-33; 43-46; 54-56.
 17. In the western part of the trench, the average depth of the leveling layers is 0.40 m. They consist of dumps of building materials, including an architectural stone fragment, and debris probably resulting from the destruction of buildings located nearby, if not from the fortification wall itself.
 18. The major drain, located on the eastern part of the trench, has been uncovered for a length of 4.50 m.; the average width is around 0.60 m; the depth is 0.55 m. The walls are built out of small size rubble sandstone, coated with pure clay. The roofing consists of irregular slabs of siltstone measuring 0.60 x 0.40 m. At the bottom of the drain is a layer of clay. The other drain, located on the north-western side of the trench, has been uncovered for a length of 1.20 m, but very badly preserved due to later destruction; the average width is 0.25 m; the depth is around 0.30 m. The walls are made of slabs of siltstone; no roofing has been preserved; the bottom of the drain is made of roof tiles. The chronology for both features (3rd-2nd c. BC) is given by the black glaze pottery sherds found in the leveling layers underneath the associated beaten – earth floor. A drain with roofing siltstone slabs, dating to the end of the 2nd c. BC or beginning of the 1st c. BC, is recorded in the thermal baths recently found on the hilltop of Populonia where the use of mortar to seal the roofing might explain its later chronology: Mascione *et al.* 2003, 17-53.
 19. The drains run below the ground level, but the roofing was visible being slightly raised.
 20. The chronology is given by the presence of both thin walled and *Italic Terra Sigillata* pottery fragments.

21. The internal walls are built with mortar and thickly coated with waterproof plaster thus hiding the wall face. The preserved part of the cistern is aligned on the compass and measures 3 x 2 m; the maximum depth reached by the excavation is about 3 m from the ancient ground floor. The building technique is a sort of very irregular *opus incertum* made with small stone lumps of local sandstone and siltstone. The coating is made with very good quality *opus signinum*.
22. The foundation of the blocks is built with rubble; the blocks themselves, measuring about 0.80 x 0.60 m., were finished on the inner side, and were underground in the outer, thus creating a sunken surface. The flooring is made of a thick layer of *opus signinum* topped by alabaster pebbles.
23. Later interventions erased any trace of the actual flooring and what has been preserved is probably the preparation layer.
24. E.g., Mascione *et al.* 2003, 44-46.
25. This can be argued from the stone fragments recovered from the filling of the cistern and from the gap between the original internal limit of the alabaster floor and the actual limit of the cistern walls.
26. Agusta-Boularot 2001, 167-236 (see esp. the example of Epidauros, 210, fig. 34); Bell 1986-87, 111-124; Bell 1988, 331-337.
27. F. Glaser, "Fountains and nymphaea", in O. Wikander (ed.), *Handbook of ancient water technology*, Leiden-Boston-Köln 2000, 429 ff.
28. Due to the limited space on the southern side where the fortification wall is located.
29. The obliteration layers are characterized by a high percentage of building material probably deriving from the destruction of the fountain itself. The chronology is deduced from the African Red Slip pottery fragments.
30. Such as shallow drains or canals, pits, sort of wall, structures made exploiting natural high alteration of the rock and most prominently tombs belonging to a Medieval burial ground.
31. On the residual pottery: Pistolesi 2004; for the Medieval phases: *Castello di Donoratico* 31-42.
32. Measuring 3 x 2.5 m. with vertical walls.
33. It was not possible to further excavate the deposit because of logistic problems.
34. E.g., Casini and Padovan 2003, 129-141.
35. Suggested by a thick natural silty level. It must be added that this level was not completely excavated and it is worth noting that a large perfectly squared slab of local sandstone has been recovered from here.
36. The chronology can be gathered from the extraordinary amount of late 3rd and early 2nd c. BC pottery, sometimes even of good quality, found in the dumping layers.
37. This is supported by the presence of large fragments of daub and partially squared stones, representing indirect evidence of structures once occupying the surrounding area, which are no longer archaeologically visible.
38. *Castello di Donoratico*, esp. ch.3.
39. The whole trench measures 5.00 x 3.5 m.
40. It is a silt-clayed layer about 0.80 m. thick.
41. The depth of the postholes is about 0.60 m. and they must have accommodated posts of

- 0.30 m. in diameter. All of them showed a second smaller post supporting the bigger one towards the external limit of the structure.
42. This chronology derives from the latest pottery found in the original filling of one of the post-holes; all the other postholes were filled in the 2nd c. AD when the structure was abandoned.
 43. The *dolium* was found *in situ* with a whole roof tile placed over the rim, which prevented the filling-in after the abandonment. Some soil, resulting from organic decomposition, has been collected at the bottom of the jar; archaeobotanical analyses are being conducted to determine whether any evidence of the original contents was preserved.
 44. In average its depth is 0.70 m.
 45. Most of the structures were, in all likelihood, made with perishable material.
 46. Other structures both stratigraphically consistent with the above described ones, but later reused in early Medieval period, have had been uncovered in 2005 season by the University of Siena team. According to G. Bianchi one of these features can be interpreted as a *lacus vinarius*. In this view all of the structures of this area might be considered as part of a wine production complex. This hypothesis will be proven or challenged only by further investigation of the in-phase stratigraphy.
 47. Melissa Ratcliff studied this mortar mixer for her Senior Honor's Thesis at the University of North Carolina at Chapel Hill, defended in May 2004.
 48. Half of this feature had been brought to light in 2002 season, while the southern half and the associated levels were uncovered in 2004 by the Siena team.
 49. The excavation revealed a raised rim of mortar encircling the posthole.
 50. Gutscher 1980, 178-88; Hodges 1993, 206-208; Dallai, 2003, 159-167 (esp. 162-165).
 51. This beaten-earth floor level shows massive traces of fire activities probably indicating a working area.
 52. Of the four samples analyzed by BetaLab, Miami, FL, three were residual (dated to the Hellenistic period), one, taken from the destruction level, was instead dated to the 9th c. AD.
 53. The chronology is here referred to the first substantial occupation of the site, as it is virtually impossible, at this stage of the research, to say anything about the previous archaic and classical phases so far attested just by the residual pottery (see above in the introduction); hopefully, further investigations will provide evidence about the actual origins of the settlement.
 54. It is noteworthy that at least two of the graffiti inscriptions refer to the Etruscan onomastic system showing the patronymic and the *nomen gentile*; Pistolesi.
 55. *Castello di Donoratico* 9 and 19-20; the picture of one of the tombs is published in Regolim and Terrenato 2000, 35.
 56. *E.g.*, the Hellenistic tombs found in Populonia at the Buche delle Fate: Romualdi 1992.
 57. The amount of black glazed pottery, collected in the levels related to this phase, is quite impressive.
 58. Moreover, it must be added, that if further examination and analysis of the mortar mixer (see above) will reveal that it can actually be dated to the 4th c. AD, even if probably it is

not the case. If this is true, it can in fact indicate a certain vitality of the site even in this period. On the Medieval occupation: *Castello di Donoratico*.

59. For a general survey for Etruscan hilltop sites: Becker 2002-2003, 85-95.
60. For the traditional picture of the landscapes of Etruria see *e.g.*, Potter 1979); various contributions in: Giardina and Schiavone 1981); Carandini 1985). For a critique of this received wisdom: Terrenato 2001, 54-67.
61. Terrenato and Saggin 1994.
62. For a catalogue of the Hellenistic and Roman sites in the Cecina valley: *Guida museo Rosignano Marittimo* (supra n.3). For Vada: Pasquinucci and Gambogi 1997, 225-236. For the villas in the territory: Donati 2001, 51-74 (esp. 61-65, 66-71).
63. Motta et al. 1993; Motta 1997; Terrenato 1998, 94-114.
64. Terrenato 1998; Terrenato 2001.