Discovering Italy's Ancient Roman Coast

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Overview

The Roman maritime settlement of Poggio del Molino overlooks the Tyrrhenian Sea in the Mediterranean. It sits in the heart of the former territory of one of Italy's Etruscan cities, Populonia. For 1,000 years, from 900 BCE to 100 CE, Populonia was an important center in the Mediterranean for trade and iron smelting—extracting iron metal from iron ore. The city came under Roman rule between 250 and 200 BCE, and metalworking activities continued. The ruling classes had great economic interest in the production of iron, and its export eventually supported the Roman expansion into Africa.

Under the direction of Dr. Andrea Camilli, research on Earthwatch project *Discovering Italy's Ancient Roman Coast* has been filling in the gaps of what scientists understand about Populonia from the early Roman period to the Middle Ages. Dr. Carolina Megale leads teams in the excavation, study, and conservation of a villa in Poggio del Molino that was built at the beginning of the 1st Century BCE. This was the same time that Populonia began to decline and was abandoned for unknown reasons. Evidence suggests the area was continuously inhabited until the end of the 5th Century CE, housing much evidence about this "dark period." A host of questions remain, including who owned this villa, and what role did it play in the city as a whole?

The goal of the research is to understand how life inside the villa reflected the economical and social life of the Roman period in general. It will also offer a more profound understanding of the industrial aspects of Roman rule—given the site's strategic location near natural resources.

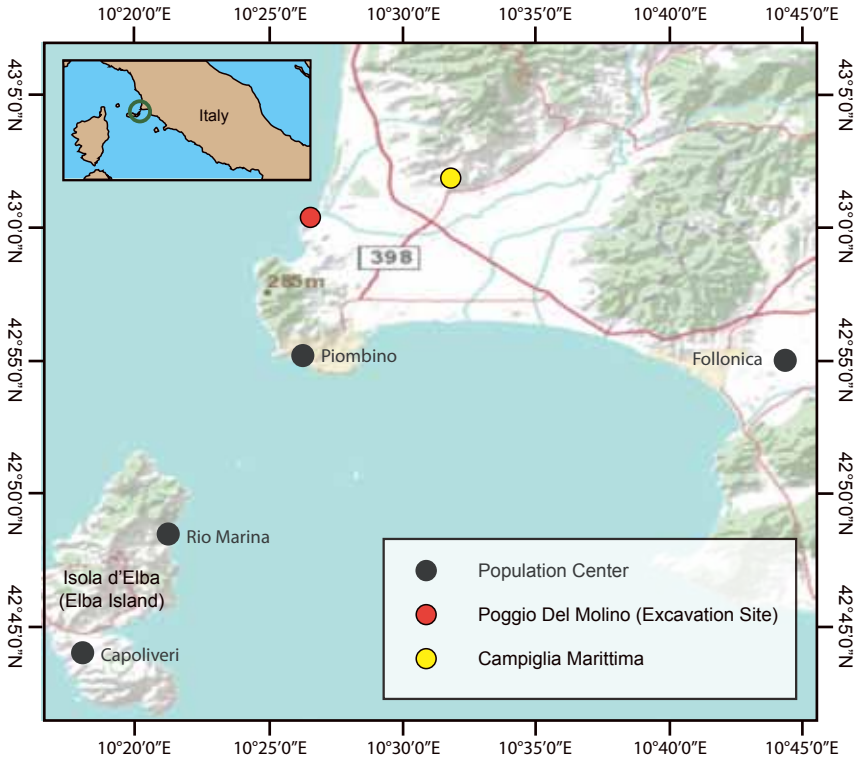

Figure 1: The maritime settlement of Poggio Del Molino lies in the heart of Populonia. Materials exploited over the villa's history include copper and lead from the mountains of Campiglia Marittima, and hematite from Elba Island.

The villa was built at the beginning of the 1st Century CE, when Populonia began to decline and was abandoned for unknown reasons.

The team will also evaluate the impact of excavation methods on natural settings.

Research objectives are:

- To undertake an archaeological excavation, making written and visual records of the excavation, a technical record and structural analysis of walls, and a survey of the surrounding territory
- To record and analyze artifacts and conduct geological analysis of stone building material, in order to identify the original quarries and the related commercial routes
- To conserve and restore the site and its artifacts

Outcomes

In 2010, nine teams of Earthwatch volunteers helped survey the villa's surrounding territory, carry out excavations, document the finds, and assist with analyses to understand the historical phases of the site. The following review is broken down by specific study areas in the villa.

The Garden and Perimeter Wall: In 2009, in the northwest corner of the garden, the teams found two large stones, one inscribed with "P.CXCI" and the second with "P.CLXXXVIII." They hypothesized that each block could have served as a terminal "*cippus*"—a small,

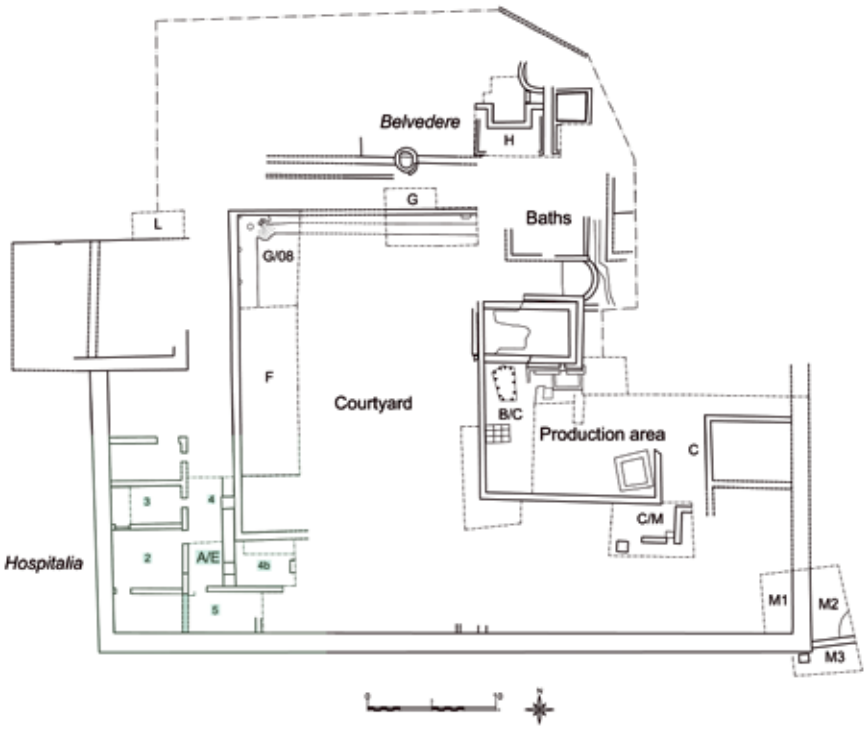

Figure 2: A plan of the villa, made at the end of the excavations of 2010. Findings made within the highlighted southwest area include mosaics discovered in Rooms 1 and 2 (see Figure 3).

low pillar used frequently in ancient times to mark distance or boundaries. If correct, the data would reflect the linear measurements of the perimeter wall of the villa: 191 and 188, respectively. The abbreviation "P." stands for "pedes," which is Latin for the unit "feet."

Measuring about 57 meters (188 feet) from the southwest corner of the perimeter wall, in 2010 the team successfully unearthed the southeast corner of the wall, so the southern wall length is exactly 188 Roman feet long. Unfortunately, the northern sector of the villa collapsed into the sea (it is not known when) so they cannot currently determine whether the distance between the southern boundary and the northern limit of the settlement equals 191 feet.

Near the southeast corner, the team found a layer of red sandy soil with a large amount of pottery from the late Bronze Age (11th to 10th Century BCE). Notably, they did not find any Roman ceramics. The team infers that in the late Bronze Age, the area upon which the villa was built had been the site of a village of huts. Here, people may have exploited the mineral resources of the mountains of Tuscany's Campiglia Marittima municipality, where copper and lead were processed. When, at least 1,000 years later, the trench was dug to build the wall of the villa, it intercepted the oldest layers. The trench was then completely filled with blocks of stone and mortar placed directly on top; this is why no materials attributable to the time of the construction of the wall were recovered.

Also of interest in the southwest corner, is a large structure—possibly a porch—around which an iron workshop was built, identified as belonging to the late Republican era; pottery and a silver coin found in this section support this conclusion. Digs also uncovered traces of smelting furnaces—including layers of hematite from Elba island (the largest island of the Tuscan Archipelago), burnt clay, and ore—used to produce iron.

The Villa: Little is known about the Augustan phase of the site when the villa itself was built, but the team is slowly piecing together the puzzle. For example, they found a thermal area—a Roman bath—in the northeast sector. There are also basins that would have been used for salting fish, an activity widely known to have taken place in Populonia from archaeological evidence and literary sources.

The iron workshop would have served as the economic base of the city of Populonia in the Etruscan period.

During the second half of the 2nd Century CE the villa was completely restored and turned into a luxurious house. Evidence suggests the basins used to process fish ceased to be used. The southwest sector was decorated with mosaics on the floors and frescoes on the walls. During spring 2010, excavation resumed in Room 1, where in the 1980s, researchers from the University of Florence, Italy, discovered a large mosaic floor with a geometrical pattern, unfortunately badly damaged by looters. The mosaic is composed of greyish-black tiles (*tesserae*, in Latin) on a white tile background, creating octagons and squares filled with different decorative motifs, among which was the design of one common ancient motif known as Solomon's knot.

The mosaic has provided important clues about the first phase of the room. Under the mosaic tiles, the team found the remains of a thick and well-refined layer of mortar and pieces of brick, which probably made up a floor over which the mosaic was built. This type of floor was coarser and cheaper than the luxurious pavement built later, so it is possible that Room 1 originally had a different function.

In Room 2, on the northern side of Room 1, researchers unearthed a mosaic with a central image of a Medusa head in 2009. In 2010, the surface was thoroughly cleaned along the eastern wall, which the team soon realized consisted of two different walls standing next to each other but built at different times. They believe the second wall was built at the same time as the mosaic floor, while the more ancient wall may belong to the first, Roman, phase of the villa. The wall is therefore significant for understanding the layout of the settlement during different time frames.

Figure 3: Earthwatch teams are learning more about the villa during the Augustan age through findings, such as a mosaic with an image of a Medusa head unearthed in Room 2.

Another important discovery, this time in Room 4, at the western section of the corridor around the central courtyard, has come from a layer totally comprised of pieces of roof tile. One of the roof tiles had part of a stamp on its surface—fitting perfectly with that of another roof tile found in 2008 in the northern section. The team has reconstructed the entire stamp and completed the name of the person who probably owned the workshop that made the stamp. They hope this will help in identifying the owner of the villa, since wealthy owners of large mansions of this type frequently produced material such as bricks and tiles on their own lands.

In the area below the collapsed perimeter wall, excavations unearthed substantial evidence that iron manufacturing resumed. They found what they believe to be a blacksmith workshop between the 4th and 5th Centuries CE. A semi-circular stone structure was probably a small refining furnace where iron was heated and used to make tools. The soil here is heavily reddened—as it would be from the continuous fire action.

In conclusion, the Earthwatch excavation of 2010 has shed light on the first settlement of the building and some of the activities that took place there—but many questions still remain. The researchers now aim to learn more about the smelting activities to understand more about the workshop and when it was used.

Recent Publications

Camilli, A. & Megale, C. (2010) From classical archaeology to sustainable tourism. The experience of Populonia. *3rd International Conference on the Management of Coastal Recreational Resources*, 27-30 October, Tuscany, Italy.

De Tommaso, G., Ghizzani Marcìa, F. & Megale, C. (2007) The roman villa at Poggio del Molino and the Project Archeodig: a new approach to the archaeology in the field. In: Baratti, G. & Fabiani, F. (Eds.) *Materials for Populonia* 9, Pisa i.p.

Megale, C. (2011) From classical archaeology to sustainable culture: the experience of Populonia. *112th Annual Meeting of the Archaeological Institute of America*, 6-9 January, Texas, US