

UNEARTHING ANCIENT HISTORY IN TUSCANY

2015
FIELD
REPORT

Unearthing Ancient History in Tuscany

2015 FIELD REPORT

Background Information

LEAD PI: Carolina Megale

REPORT COMPLETED BY: Carolina Megale

PERIOD COVERED BY THIS REPORT: May-June-Sept-Oct 2015

CHANGES TO:

PROJECT SCIENTISTS: None

RESEARCH SITE: None

RESEARCH SITE LATITUDE / LONGITUDE: None



Dear Earthwatch volunteers,

First and foremost, thanks to all of you from the staff of Archeodig Project: myself, Stefano, Helga, Martina, Ambra, Laura and Pier Paolo. Thanks to your help, our research has made important steps forward in 2015. For that reason we look to the past year and future years with great optimism, professionalism and competence.

Last year we concentrated our forces both on the site of Baratti-San Cerbone to define more clearly some steps in the history of Etruscan Populonia, and on the settlement of Poggio del Molino to continue the excavation and to elaborate on the right strategy to bring on the research and the restoration, involving the local community and the public.

In San Cerbone you helped add pieces to the mosaic that the "city of the dead" represents. In particular in 2015, you helped us to discover some exciting new finds: a new tumulus tomb and some intact burial sites. The new tombs design a new plan for the necropolis, now ruled as a town by a grid of streets.

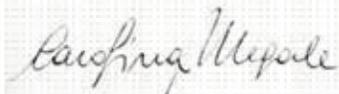
As far as Poggio del Molino was concerned, as you know 2014 was a key year for our project: in January the Municipality of Piombino concluded the expropriation of the land where the Roman settlement is located, so now the area is public. In 2015 not only did we add new important knowledge about the layout of the settlement, but we also worked to open this archaeological park to the public. We began to restore Roman mosaics, with the collaboration of the RavennAntica Foundation.

In addition to the scientific aspects, our project shows also a more human side. Citizen science and all it can contribute is not so well-known in Italy. By participating in our project, you provided an example for Italian citizens who want to contribute to our understanding of our worldwide archaeological and cultural heritage and importantly, to help conserve it. In that sense your contribution to our research is also a contribution to the growth of the knowledge of a wonderful region too often neglected and mismanaged. The opening of the archaeological park will allow us to share our scientific research findings and to convey the importance of citizen science.

After seven intense years of excavation, thanks to the support of Earthwatch volunteers, we can confirm that, for us, this collaboration has been an outstanding success in terms of quality of work achieved and the people we have met. You are really special! You are the strength of our project: your patience, energy and passion enable us to achieve the goals that drive our research.

In your own way each of you contributed to make the 2015 season a unique experience, for you of course, but especially for us.

With immense gratitude,



Carolina Megale

SECTION ONE: Scientific research achievements

TOP HIGHLIGHT FROM THE PAST SEASON

The main objective of the Project is to fill as many as possible of the gaps in our knowledge of the history of Populonia and its territory from the Etruscan period (7th-6th century BCE) to the beginning of Middle Ages (6th century CE), starting from the roman settlement of Poggio del Molino (PdM), the first site in Populonia's territory excavated with scientific method and modern technique of contemporary archaeology.

The research in PdM started in 2008. In 2012 we started the excavation of a branch of the Etruscan necropolis of San Cerbone, in Baratti gulf. In 2014 we also started to study funerary archaeology and human remains with the main objective of reconstruct the ways of life (and death) of the ancient population of Populonia, through the analysis of a sample of burials of Etruscan and Roman period coming from the necropolis of Baratti.

In 2015, in the necropolis of San Cerbone we discovered a **new tumulus tomb**, dating in late 7th-6th century BCE and **graves still intact**, a pit with a couple buried together and a pit with a man at least 30 years old, both very well preserved (bones will be studied in the next season 2016)

In 2015, in agreement with the Superintendence of Archaeological Heritage in Tuscany (Italian Ministry of Cultural Heritage), we conducted a survey of the area around Baratti gulf. In particular, the research focused on the northern slope of the Poggio Castello where according to written sources (Greek geographers Strabone and Tolomeo) had to be the lower city of Populonia, in front of the ancient commercial port.

We collected an enormous amount of pottery and we identify structures and wall probably connected with the city!

The October 28, 2015 a violent flood hit Populonia and Baratti Bay. The work of post-flood emergency, entrusted by the Superintendence of Archaeological Heritage in Tuscany to Carolina Megale, have revealed, in the same area of our survey, an Etruscan house and the city sewer system. **We discovered the lost city of Populonia!**

Until now, about Populonia we knew the Etruscan necropolis, the industrial buildings for the smelting of iron, the city walls and the sacred area of the Acropolis, but we didn't know the exact location of the city where people lived with houses, shops, warehouses, and knew of it only from written sources. Now we have identified the area where the city of Populonia was! The city seems still well preserved and to be excavated! We discovered the little Pompei of Populonia!

REPORTING AGAINST RESEARCH OBJECTIVES

LOCATION 1—ETRUSCAN NECROPOLIS OF SAN CERBONE-CASONE

Objectives

1a: to determine the extent of the necropolis of S.Cerbone and its topographical and chronological development;

2a: to understand when the necropolis of S.Cerbone was abandoned;

3a: to identify the structures built over the abandoned tombs and define their function;

5a: to acquire new knowledge on socio-economic characteristic of Etruscan society of Populonia;

6a: to study the building techniques of the tombs and other structures. Through the analysis of building materials, we can also define the nature of stone and its origin; and

7a: to reconstruct the landscape and natural condition in Etruscan times, especially through organic samples analysis (seeds, wood, pollen, bones, etc.).

This report is about the 2015 excavation of the necropolis of San Cerbone, one of the main cemeteries of the Etruscan town of Populonia between the 7th and the 5th century BCE. The excavation campaigns we started in 2012 allowed us to understand more about the topographical and historical development of the necropolis; the main goals of the 2015 excavation were to find a new tumulus tomb (the second one in Area 1) and to excavate some graves, which were still intact.

1. After the campaign 2014

During the 2014 excavation we mainly focused on the north-eastern part of Area 1, so far not yet dug out and where two well-preserved sarcophagus tombs— both looted during the Etruscan age and dug out by the archaeologists in the '60s—are located. Our main purpose was to dig out the ancient stratification underneath the sarcophagi's foundations and learn when they were exactly built.

The upper part of the stratifications was made of layers rich in iron slag and pottery, whose formation began in the 4th century BCE, when the increase of the iron smelting activities in the workshops near the necropolis caused a major phase of production of slag. These huge slag piles were dumped next to the workshops themselves, in the necropolis area. The slag layers covered the base slabs of the bigger sarcophagus tomb, proving the latter—and the other tombs

in the necropolis—were abandoned within the 4th BCE. The same layers were also covering a yellow sandy layer on which the sarcophagi were built; the pottery fragments found in the layer provide an end of the 6th - beginning of the 5th century BCE chronology for the construction of the tombs.

The most impressive discovery of the 2014 excavation was a big horseshoe-shaped stone structure (length 4.26 m (east-west) and 4.28 m (north-south) max preserved height 0.61 m) hidden underneath the yellow sandy layers on which the sarcophagi had been built. Made of roughly square blocks of two different kinds of stone, one made of schist one and very fragile, and the other made of limestone, which is tougher. The original shape of the structure likely resembled a platform or a podium, similar to the altars known in the Etruscan civilization and in Populonia too (*Obj. 6a*). We can imagine the priest standing on top of the platform, performing rites and sacrifices to the afterlife gods on behalf of the owners of the tombs.

At the end of the 2014 campaign we identified a wide, round ditch 1 m from the perimeter wall of the altar; underneath three different layers of iron slag a sub-circular shaped structure made of sandstone block was found.

2. The 2015 excavation

The excavation of the small round structure found at the end of the 2014 excavation has been the main aim of 2015 campaign. We went on to excavate the altar, where we detected a tomb and dug it out. We then dug out one more burial, at a site known to us since 2013, in the southwestern part of Area 1.

2.1. A NEW TUMULUS TOMB (OBJ. 6A)

In order to dig out the entire round structure, the northern and eastern limit of Area 1 were both moved further of about 4 m. A huge layer of greyish-brown clay containing much iron slag, stones and few fragments of pottery and bricks, already identified and excavated near the sarcophagi, was covering the whole extent of the new sector of Area 1. Soon we realized the slag layer was also filling a round ditch, the same already found next to the structure discovered in 2014. By removing the latter layer, we were able to see the mound of an Etruscan tumulus tomb, whose diameter measures about 3,4 m. The outer wall bordering the mound consists of just one line of stones, only partially worked; the mound itself is made of red clay (the same as the hill where the necropolis is)—and stones. On top of the mound we have been able to see what is left of the vault of the chamber; the latter was made of small slabs of different kinds of stones, stacked on top of each other, in order to make a false dome. The chamber was still filled with a layer of slag mixed with black and yellowish clay; the presence of fragments of wine amphorae made in the southern part of Italy (Campania or Lazio) and fragments of black-glazed pottery tell us the tomb was probably looted around the first half of the 3rd century BCE.

Once the slag layer was removed, we were able to empty the chamber and the entrance of the tomb (the *dromos*), open to the north. The room, a very small one, has a rectangular plan, not common for a tumulus tomb; it measures 1,2 x 2,1 m, while the *dromos* is 60 cm high and 50 cm wide.

Our evidence for grave goods is very scanty; we only found a few fragments of pottery and bronze. We found the handle of a 6th century BCE wine Etruscan amphora and two bronze fishhooks in the *dromos*, and some fragments of Attic black figured cups dating to the second half of the 6th century BCE in the slag layers covering the chamber. These artifacts just tell us that the tomb was still used until the end of the 6th century BC. but, according to the kind of tomb (a tumulus tomb bordered by a simple circle of stones), we know its building can be dated to the end of the 7th century BCE.

2.2. THE AREA OF THE ALTAR

At the starting of the 2015 campaign, we cleared the altar area of vegetation and dust, and in the process found a skull hidden by a thin layer of yellow sand in the south-eastern sector of the altar's perimeter wall. Excavation revealed the well-preserved skeletons of a man about 30 years old; most of the bones were still in connection and the position of the clavicles testifies the use of a shroud. A greenish discoloration of one of the fingers of the right hand allows us to infer the presence of a bronze ring at the time of deposition. Excavating the grave intercepted and destroyed the structures of the altar, which means the tomb is later than the altar and earlier than the building of the two sarcophagi; since the altar's chronology is unknown and the body had no grave goods, the only chronology we can assume is that the tomb is earlier than the second half of the 6th century BCE.

2.3. THE SOUTH-WESTERN SECTOR OF AREA 1 (OBJ. 3A)

In the southwestern sector of Area 1, the excavation of one more burial, already known, has been completed; the tomb is just a simple grave, dug in a layer rich in materials (pottery, bricks, stones, iron slag and animal bones), identified as part of a wide dumping area dating to the 4th-2nd cent. BC. So, likely between the 2nd and the 1st first cent. BC., two bodies - a man and a woman - were buried inside an elongated pit grave, running east-west. It's not easy to understand the reasons why two persons have been buried together and, hopefully, new data coming from the anthropological analysis could help us.

3. Conclusions: the necropolis of San Cerbone between the 7th and the 4 - 3th century BCE (Obj. 1a, 2a, 5a)

One of the major goals of our excavation since we began our research has been to reconstruct the development of the necropolis through centuries. Starting from the 7th century BCE, the area of San Cerbone began to be used as a cemetery by a few families belonging to the aristocracy of the Etruscan town of Populonia. Their wealth was mainly due to the massive exploitation of the Populonia's territory iron mines. Until today archaeologists thought this phase was attested to in San Cerbone's area only by the tumulus tombs. The 2014 excavation showed that along with the tombs you also could find other structures, like the altar dug out in Area 1, to be used for the many cults worshipped by people in the necropolis. Between the 7th and the half of the 6th century BCE the landscape of the necropolis is then characterized by the presence of a few tumulus tombs and altars, used for sacrifices and rites to the afterlife gods, scattered on the ground and far between. 2015 excavation allowed us to add another piece to this mosaic; the new tumulus tomb dug out in the north-eastern part of Area 1, in spite of the shortage of grave goods, is one more feature of the use of the area as a necropolis by aristocratic families.

Beginning in the middle of the 6th century BCE the Etruscan society, and of course Populonia's, underwent major changes; on top of the Acropolis the long-term process of urbanization, already begun in the 8th century BCE, was finally leading to the birth of a real city. This town now had a circle of walls, temples to the gods of the city, an army and a mint for the payment of the army.

Changes in the "city of the living" means also changes to the "city of the dead." The old tumulus tombs went on being used, but new families, enriched thanks to the development of iron working, built new monumental tombs. The new tomb models were now the temples (loyalty of families to the city was symbolized by the temple) and sarcophagus tombs, to be considered as middle class graves. The building of the two sarcophagus tombs in the northeastern part of Area 1 in this phase meant the destruction and the levelling of the older altar.

The new tomb design created a new plan for the city of the dead, now ruled, as a town, - by a grid of streets. The road network was also created with the purpose of keeping the necropolis separated from the iron smelting workshops, located northwest. Starting from the 4th century BC, the increase of the iron smelting process brought a great change in the topographic structure of this whole area; the need for room for iron slag dumping caused abandonment of the necropolis, which was literally submerged by the slags. Of course most of the tombs were then opened and looted.

4. Anthropological studies (Obj. 4a, 7a)

Beginning in 2014 we organized an Anthropological Lab (ANTHRO.Lab, see below) with a team of professional anthropologists who studied for our project human remains in the Necropolis of Baratti Gulf which we discovered in 2012. In 2015, our objective was to:

- identify the estimated number of individuals buried inside the sarcophagus;
- analyzed the biological profile of human remains;
- conduct chemical analysis to detect the possible presence of heavy metals to determine the causes of death: were these causes related to the iron smelting activity?

ACTIVITIES:

- **Step 1—Introduction of physical anthropology and methods.**

Volunteers learned the principles of the skeletal anatomy, the methods to estimate age and sex, to reconstruct a biological profile, and an osteobiography. These lessons were conducted with the aid of slides, specification schedules and plastic bone patterns. Volunteers also learned methods for reconnaissance, bone cleaning, and sample preparation.

- **Step 2—Cleaning of human remains recovered from the same context of the sarcophagus tomb.**

Volunteers, assisted by an anthropologist, cleaned human bones using small spatulas, brushes and water. After, the samples were placed to dry.

- **Step 3—Removal of non-human elements.**

Volunteers separated the human bones from animal bones.

- **Step 4—Identification.**

Volunteers identified the single fragments with the help of a reference manual and plastic-bone models. Each volunteer divided a part of the samples on the basis of anatomical districts: for example, all of the fragments identified as jaws were separated from the rest of the group and so for the remaining.

- **Step 5—Sample preparation.**

Volunteers, when possible, assembled bone fragments to make a sample. This was done with the use of PVA glue to be able to ensure the reversibility.

- **Step 6—Marking.**

Volunteers assigned all the affixing samples an acronym (eg BSC 2012 1006 identification of a bone excavated in unit stratigraphic excavations number 1006 in 2012 to Baratti San Cerbone). This marking will serve for the creation of a database.

Number of individuals and biological profile.

We recognized 622 human bone fragments. These samples were included into a database, divided by districts.

In response to the first question: "How many people there are in the sample examined?" We identified 8 individuals through laterality of right ulna. There are 4 males, 3 females, 1 not determined sex, all adult. In particular:

- 1 male, age senile
- 2 males over 45 years
- 1 female between 21 and 45 years
- 1 female between 21 and 35
- 1 person of which have not been determined nor sex nor age.
- 1 male and 1 female with no specific age

It was not possible to make a more precise diagnosis due to the incompleteness and fragmentary nature of the human remains. The human bones were likely discovered, handled, and displaced during the desecration that took place in Roman times in the Etruscan necropolis.

The absence of obvious muscle insertions shows insignificant physical activity, skeletal health is good. Some mandibles show dental losses while living and cases of periodontal disease, diseases that develop in fairly advanced age.

A total of 47 teeth coming into the stratigraphic unit number 1006 were analyzed, globally have shown a good skeletal health: they did not have traces of pathological outcomes.

This means that the analyzed subjects enjoyed a good diet. More specific information may be derived from paleonutritional analysis.

The only complete bone found is the left humerus of a woman. From the humerus was possible to derive her stature, which we estimated at between 154.9 and 159.8 cm, or 5'1" and 5'3" in height.

The examined bones exhibit black spots of different sizes due to the proliferation of mold and high humidity, and some of the samples show a greenish coloration indicative of contact with bronze and / or copper materials, this is confirmed by the presence of bronze objects.

For the fragmentation of the human bones and their discovery outside the funerary structure, it was not possible to ascertain the type of deposition used.

It is assumed a multiple deposition space filled, such as those previously found in the archaeological area of Populonia - San Cerbone.

Chemical Analysis (see attached)

We selected 8 bone samples taken from the right ulna of the 8 identified individuals.

The analyzes have documented the presence of chemical elements such as boron, aluminium, vanadium, chromium, manganese, iron, nickel, copper, zinc, arsenic, selenium, cadmium, antimony, lead, beryllium, cobalt, barium. Of these, the most significant components were iron, manganese, aluminium, copper, zinc and lead.

Iron: unreliable because very diagenetic (transferred post mortem), assumable from foods such, eggs, legumes, meat, fish, vegetables and grains or absorbable contaminated soil.

Manganese: unreliable because very diagenetic, assumable from foods such as nuts, grains, roots, tubers, fruits, meat and fish or absorbable contaminated soil.

Copper: unreliable as diagenetic, assumable from foods such as shellfish, molluscs, guts, meat, nuts, vegetables, honey or absorbable contaminated soil.

Zinc: in particular reliability as an element not diagenetic. Used as the main indicator of the consumption of marine molluscs. Its presence makes it reasonable to assume a shellfish diet, along with red meat, grains, tubers, milk and dairy products, nuts, and legumes.

Lead: crucial as being predominantly assumable from non-food sources, its presence, mainly used in paleopathological investigations, is evidence of the element itself absorbed by the individual in life or after his death through a contaminated soil from it.

These crucial data mark the beginning of research on the lifestyle and cause of death of the Etruscans of Populonia. This work will then function as a pilot study in Italy. It will take longer-term research to determine the way of life and causes of death of Populonia's inhabitants.

5. Reconstruction of landscape and natural conditions (Obj. 7a)

In the necropolis in 2015 we didn't find any organic samples. During the emergency excavation post-flood conducted by PI Carolina Megale (January-February 2016), we collected burned seeds that are being examined by a biologist at the Museum of Natural History of Mediterranean Sea in Livorno. They appear to be wheat and grape seeds, preserved in big jars and in sacks, stocked in the warehouse of the Etruscan house. These seeds are helping us document the economic base of the Etruscan agriculture.

LOCATION 2 - ROMAN SETTLEMENT OF POGGIO DEL MOLINO

Objectives

1b: to continue to expose the villa's plan and to identify the specific function of each part in its different stages of life; to complete the excavation of the central court and of rooms overlooking it, only partially discovered; to complete the excavation of the baths and of the productive part;

2b: to understand the scale of production of the iron smelting;

3b: to understand the scale of production of the fish sauce;

4b: to study the building techniques, decorations, mosaics and frescoes of the villa. Through the analysis of building materials, we can also define the nature of stone and its origin;

5b: to reconstruct the landscape and natural conditions in Roman times, especially through organic samples analysis (seeds, wood, pollen, bones, etc.);

6b: to assess the villa's relations with the surrounding territory (harbor, lake and road system) through survey and geophysical prospecting;

7b: to study productive activities of the villa and their connection with the economic resources of the territory ("site catchment" analysis); to increase our knowledge about the productive part with particular attention to techniques of production and provenance of raw materials;

8b: to assess the villa's relations with the surrounding settlements, only partially known: Villa di Poggio S. Leonardo, Villa di Poggio all'Agnello, Villa in Loc. La Caduta and Roman villas on the Elba Island and in the Tuscan archipelago;

9b: to identify of the owner or of his family in order to understand the relationship with the Roman ruling class by study of various epigraphical sources (inscription, stamps, etc.); and

10b: to understand the economic relation with other Mediterranean countries through the study of pottery and other finds.

SECTOR NORTH OF THE SETTLEMENT: AREA H

Area H is located in the northern part of the site of Poggio del Molino; the excavation of this area began during the 2010 campaign to investigate a sector of the settlement dug to a very small extent by the University of Florence, where the ridges of several unexcavated walls were visible.

During the 2012 excavation, we started to focus on the westernmost part of Area H as far as the area surrounding the so-called fountain dug by the University of Florence in the '80s.

Since this first campaign we were able to understand that, like in other areas of the site, the functions of this sector changed dramatically over the centuries. After the fifth year of excavation it's now possible to outline the main phases, starting from the first phase of life of the settlement (1st century BCE) until the final abandonment of the area (4th to 5th century CE).

Because of the complexity of the archaeological stratification we've excavated, due to the many changes in the use of the area, our report is organized in four paragraphs, each one presenting the history of a single period.

1. THE FORTRESS PERIOD (OBJ. 1B, 2B, 6B, 7B)

A big wall running east-west and 80 cm wide is the most ancient structure of area H, likely to be contemporary with the construction of the defensive wall of the fortress. We could assume that the wall was part of the barracks where the garrison was housed.

During the 2015 excavation we have been able to dig out another structure, a square pillar, that can be related to the same phase. The pillar, which measures 90 cm on a side, tells us that in the north-eastern corner of the fortress there was a porticoed area covered by a roof, much similar to the one already discovered in the south-western sector and used for the iron ore smelting activities of the fortress phase.

2. THE FISH-SAUCE WORKSHOP PERIOD (OBJ. 1B, 3B, 4B, 7B, 9B, 10B)

After the victorious war led by Pompey against the pirates (67 BCE), the fortress rapidly lost its original function. Within a short time its structures were reused and the north-eastern sector was occupied by a workshop for the processing of fish, called in Latin *cetaria*.

The fish -The harvested fish were placed inside square vats coated with waterproof plaster (the so-called *cocciopesto*), mixed mixed with salt and water, left to ferment. The fermentation process resulted in a sauce, the famous *garum*, much used in Roman cuisine. Another way to process the fish, which has much in common with the making of the *garum* - is *salsamenta*, which means “fish in brine.” Fish were cut into pieces without head or tail and put into the vats with water and salt, as well.

For a long time the only thing archaeologists knew about the fish-sauce production in the territory of Populonia in Roman times was reported by the Greek geographer Strabo, who visited the town in the early years of the 1st cent. CE, talking about a tower for the sighting of tuna fish’ schools passing seasonally along the coasts. The new data we’ve been able to collect between 2011 and 2015 allowed us to reconstruct part of the history of another important economic activity in the territory of Populonia.

The most ancient group of vats, built around 50-25 BCE, is located in the north-eastern sector of the fortress, north of the long wall that could belong to the barracks. The workshop consisted of 5 vats lined with waterproof plaster (“*cocciopesto*”) - where the production of sauces and salted fishes took place - and two twin vats, lined with a poorer *cocciopesto*, where water or salt, necessary for the fish processing, were probably stored. The amount of the production can be estimated at 40 cube meters, meaning a medium-sized workshop.

During the 2015 campaign, we focused on the excavation of two more fish-sauces vats, still unknown to us. At the end of the 2014 excavation we found a small part of the corner of a new vat next to the eastern perimeter wall of the most ancient group of vats. Since the vat had its own perimeter wall, we were able to determine that it belonged to a new group of vats, added later to the earlier ones.

In 2015 we started cutting the vegetation and then removing the humus layer; this enabled us to identify most of the walls and the *cocciopesto* coating of the vats and a wall, running south-north, which we identified as the perimeter wall of the new vats system. Unfortunately the northern sector of the area is now lost, fallen down into the cliff.

The system consists of two vats, sharing the middle wall and each measuring at least 2.09x1.70 m; the middle, eastern and western walls are 25-33 cm wide. Like in the other vats of the workshop, each corner has a quarter-rounded shape, likely to facilitate cleaning the vats at the end of fish processing.

The south perimeter wall is 91 cm wide, likely to maintain a high temperature inside the workshop during the fish’s fermentation.

Since usually the depth of a fish-sauce vat is at least one meter, we can estimate the capacity of the new vats at 7.1 cubic meters at least. These means that we can estimate the total capacity of the workshop, which contained 9 vats, as over than 47 cubic meters.

On the neck of an amphora we found traces of writing (in Latin), called *titulus pictus*. Although the first word is still unclear, the second line contains a name, formed by tria nomina, C. *Caecina Largo*, in dative. We interpret this as meaning that the amphora contained Spanish fish sauce for Caio Caecina Largo, probably the owner of the farm that produced the fish sauce. C. Caecina Largo was consul in 42 CE (with the Emperor Claudius), originally from the Etruscan city of Volterra. This is a very important finding for us and in terms of the history of Rome. We are delving deeper into this extraordinary find.

3. THE VILLA PERIOD (OBJ. 1B, 4B, 10B)

During the 2nd century CE the fish production came to an end, most likely because of the competition from cheaper products coming from other regions of the Roman Empire. At the end of the century, perhaps after a period of abandonment, Poggio del Molino was newly occupied and transformed into a residential country villa. At this time the fish-sauces workshop was partially destroyed and occupied by a bathhouse (*thermae*), located north of the old wall of the fortress phase, and by the northern side of the peristyle portico.

Between 2010 and 2014 we dug out the hot room (*calidarium*) and a small part of the cold room (*frigidarium*). During the 2015 campaign, we focused on the excavation of more of the latter and of the heating system of the hot room (*praefurnium*). We still have not found the warm room (*tepidarium*).

3.1. The *thermae* - the cold room (*frigidarium*)

The *frigidarium* is a large rectangular room measuring 8,5x2,42 m; it has two cold pools. The smaller one, round shaped, is partially embedded inside the southern perimeter wall; that's the so-called fountain dug by the University of Florence in the '80s. The diameter, only 92 cm, tells us the pool was intended for not more than one person.

The bigger cold pool is located in the western sector of the room. During the 2014 excavation campaign we excavated its south-western corner and part of the stratigraphic sequence that filled it. The layers mainly consisted of rubble; we found empty bricks, used for the walls' heating system, many fragments of painted plaster and mortar, to be identified as a deliberate discharge of building materials from the bath's structures.

During the 2105 excavation we enlarged the excavation area in order to be able to discern the entire plan of the pool and surrounding walls. After the removal of a huge layer of humus and of a layer of collapsed cold room perimeter walls, we were able to determine that the cold pool was elliptical, the inside measuring 1,6x2 m; the eastern side has a big step, used both for entering the tube and as a bench. The whole structure is made of broken roof-tiles and a few stones bounded with mortar and lined with a fine waterproof mortar. During the 2016 excavation we plan to excavate the entire stratigraphy inside the pool, in order to collect data concerning the abandonment and the destruction of the villa's structures. In the eastern side of the cold room, more of the stratigraphic sequence hiding the floor has been dug out.

A few marble slabs suggests that the *frigidarium* had probably a marble floor; after the abandonment of the villa, someone was interested in removing the slabs, in order to reuse them in some other building. This was a common practice during the Middle Ages, and The site of the villa of Poggio del Molino was good for such an activity; stones and slabs could very easily be trade by sea, ready to be used in new buildings (castles, abbeys, churches, etc.).

So, the excavation of the *frigidarium* is essentially the excavation of what the Middle Age looters left behind! The upper layers have many stones, likely the ones that were not chosen; underneath we found a huge layers of roof-tiles and many bricks, all the latter to be recognized as *tubuli*. They are parallel piped and empty bricks, meant to be used inside the walls of bathhouse rooms. Hot air could pass inside them, in order to heat *calidaria* or saunas.

The layer of *tubuli* covered a layer rich in fragments of wall paints and painted ceilings, destroyed - as the *tubuli* - at the moment of the walls spoliation. This layer covered the floor; since the marble slabs of the bathhouse floor are gone, all we found was the concrete underfloor, still very well preserved.

The latter is then hiding erased structures, very likely to be related to fish-sauce workshop vats—another important find of 2015 excavation. The presence of vats in this area, westward of the vats we already knew of, means the workshop was much bigger than we thought, even including the two new vats in the eastern part of Area H.

3.2. The *thermae* - the *praefurnium*

In a Roman bath the heating system of the hot room (called a *calidarium*) is usually located next to it, beyond a middle wall; here you can find an open space, where the slaves in charge of the bath made a woodpile. After setting fire to it, the hot air was pushed with a bellow into a covered tunnel as far as an arch that opened onto the empty space underneath the floor of the *calidarium*.

The *praefurnium*, which means “the space in front of the kiln”, was usually located at a lower level than where people walked, in order to keep retain the heat; the area was then equipped with spaces for storing the wood and tools required to operate the heating system.

Most of these structures are still preserved in the area we dug in 2015. The arch and its tunnel, but for the roof, are still intact. In front of them two walls enclose a small space where the woodpile could be prepared.

The tunnel and this area were completely covered by more layers related to the abandonment of the bathhouse. We excavated all of them, and were fortunate to find a bronze coin that enabled us to date the end of the villa to the second quarter of the 4th century CE (325-350 CE).

The coin shows on the two sides the following images and inscriptions:

- Head of a Roman Emperor with laurel crown facing right; inscription: *Constantinus lun(ior) nob(ilis) C(aesar)* (“Constantine the Elder, noble Caesar”).
- Laurel wreath containing the text *Caesarum nostrorum / vot(a) X* (“ten year vow of our Caesars”).
- The coin is a *folles*, a small bronze currency, made in the mint of the town of *Arelas* (now Arles, in the southern part of France) between the 322 and the 323 CE. The emperor is Constantine II, son of Constantine the Great, who was then ruling the western part of the Empire. The coin was likely issued to commemorate the tenth year since Constantine II's rise to the throne.

Once we had dug out all the layers, we were able to find the bedrock that had been worked with pick-axes in order to make a cavity deep enough for the woodpile. In the south part of the kiln a round hole, dug into the rock, was probably used as a posthole, to support a timber roof. A layer of black ash found inside the tunnel represents the remains of the last fire in the *praefurnium* before it was abandoned.

4. PdM and the Mediterranean world (Obj. 10b)

In the lab we verified the presence of pottery from all of the Mediterranean world. For example, we identified amphoras from all the provinces of the Roman Empire, such as Gallia, Spain, North-Africa, east coast of Mediterranean. Amphoras were used to transport wine, olive oil and fish sauce. We also identified pottery from North Africa, specifically “*Sigillata Africana*” (plates and cups used on the table to eat), produced in Tunisia, and pots of cookware, also from Tunisia.

5. Relations with the surrounding territory (Obj. 6b)

In 2015, in agreement with the Superintendent of Archaeological Heritage in Tuscany (Italian Ministry of Cultural Heritage), we conducted survey research around Poggio del Molino. In particular, our survey focused on Poggio San Leonardo, the hill between Poggio del Molino and Baratti bay. Here we identified the ruins of a structure with a very thick perimeter wall very similar to the one in the fortress of Poggio del Molino. Although our hypothesis needs to be confirmed by more data, we suppose that on Poggio San Leonardo there was a fortification, maybe a tower, with a very important function: it permitted the communication between Populonia and the fortress of Poggio del Molino, through triangulation of fire lights.

METHODS AND ACTIVITIES

Objective 1a, 2a, 3a, 1b, 3b, 7b

ARCHAEOLOGICAL EXCAVATION

Volunteers worked 14 weeks alongside field archaeologists, anthropologists, geologists and conservators. As every year, each week the staff taught them the stratigraphic method of archaeological research and after lessons and briefings supervised volunteers in the excavation and the other activity on site.

EXCAVATION:

After a lesson on stratigraphic methods, volunteers worked alongside staff using picks, shovels, wheelbarrows, trowels and brushes. Volunteers worked in three-people teams who took turns pickaxing the soil, shoveling it and removing it with a wheelbarrow. Generally the teams were composed of one man and two women; but we had to be flexible, due to the age of some volunteer. People who had physical difficulty with excavation used smaller instruments, such as trowels and brushes, to remove the soil that covered the structures we discovered. All of this was necessary before undertaking the graphic documentation. They also cleaned mosaics with a brush and running water, in order to reveal and study the pattern of the mosaics, verify the stones used, prepare the surface of the floor for the restorer who would restore and mend the mosaics with mortar.

WRITTEN DOCUMENTATION:

The volunteers, after removing a layer of soil, completed the written documentation by filling out the US sheet record, with the help of archaeologists. They also completed the daily diary of the excavation, an important piece of documentation to ensure continuity in the work when the team changes.

VISUAL DOCUMENTATION:

The volunteers, particularly those with a passion for photography, took photos, both layers of soil and finds, according to the rules of archaeological photography.

DRAWING DOCUMENTATION:

After lessons on the theory and practice of archaeological drawing documentation, the volunteers worked with the archaeologist to create plans, sections and prospects of the structures. Volunteers with drawing skills helped the archaeologists to carry out the drawing documentation of the walls and structures revealed during the excavation.

Objective 2a, 5a, 6a, 7a, 2b, 4b, 5b, 9b, 10b**RECORD AND ANALYSIS****Pottery Lab:**

Volunteers, with the help of the pottery lab supervisor, cleaned the pottery artifacts with a brush and running water. After pottery dried under the sun, the volunteers marked it with a permanent pencil, per the rules of cataloguing finds of the Ministry of Cultural Heritage.

Then, volunteers classified the finds according to specific productions: Greek and Etruscan pottery, roman "sigillata", coarse ware, kitchen ware, amphoras, bricks, coins, metals, bones.

Frescoes:

Volunteers, with the help of the archaeologists, cleaned the frescoes collected during the excavation with a brush and classified the finds according to colour or decoration.

Stones:

Volunteers, with the help of the geologist, collected some loose *tesserae* of the four mosaics brought to light this year. The geologist, will be analyzing the samples and identifying the stones, in order to identify the source quarries, which in this case probably were located in the Populonia territory.

Database:

To address the anthropological component of our research, we created a bone database. Volunteers helped anthropologists enter data in this database.

Objective 4A, 5A**ANTHROPOLOGICAL STUDIES****Bones:**

Macroscopic analysis: after an introductory lecture, volunteers helped anthropologists study bones. After cleaning bones that we found, they helped identify and assemble them, and using a macroscopic analysis to determine age and sex and identify eating and/or functional diseases or stress.

Chemical analysis of bone fragments was conducted by a lab.

Objective 6B, 8B**Relations with surrounding territory**

Aerial Photos: after an introductory lecture, volunteers help geologist to work with satellite images to identify possible traces of ancient structures. After that they conducted a field survey with a landscape archaeologist to verify these structures.

Objective 2a, 5a, 6a, 4b, 7b, 9b, 10b**CONSERVATION AND RESTORATION****First aid for finds****Pottery:**

After the operations of cleaning, marking and cataloguing, the volunteers tried to reconstruct the shapes of artifacts in better conditions, particularly Greek fine ware.

Mosaics:

Volunteers collaborated in cleaning the villa's mosaics. The volunteers after a slow and very gentle removal of dirt, and the biggest roots, cleaned the mosaic surface with sponges and water, according to the rules of restoration for finds. To avoid scratching the surface of the mosaic, they removed the soil with brushes and wooden stakes and then they cleaned it just with sponges and water; some parts were covered by thick encrustations that we decided to left just for the moment, pending a complete restoration of the floor.

During this field season a restorer came on site for four weeks to restore the mosaics, focusing on simply stopping the deterioration. A full restoration requires funding not currently available.

Objective**CULTURAL DISSEMINATION AND PUBLIC EXPLOITATION**

See Section Two: Impacts

Objective**TRAINING COURSE EMPLOYMENT OPPORTUNITY**

See Section Two: Impacts

SECTION TWO: Impacts

INCREASING SCIENTIFIC KNOWLEDGE

MoS 1.2 Peer Reviewed Publications

Stefano Genovesi, Carolina Megale, *The Roman Settlement of Poggio del Molino: the Late Republican Fort and the Early Imperial Farm*, in FOLD&R, 347, 2016.

<http://www.fastionline.org/docs/FOLDER-it-2016-347.pdf>

Stefano Genovesi, *Il laconicum di Poggio del Molino. Cronologia, percorsi e mosaici*, in *Pitture murali nell'Etruria romana: testimonianze inedite e stato dell'arte*, Atti del Convegno (Pisa, 22 Giugno 2015), in press.

Ilaria Benetti, *Sistemi decorativi dei balnea della villa romana di Poggio del Molino a Populonia*, in *Pitture murali nell'Etruria romana: testimonianze inedite e stato dell'arte*, Atti del Convegno (Pisa, 22 Giugno 2015), in press.

Giandomenico De Tommaso, Carolina Megale, Stefano Genovesi, *Piombino (LI). Necropoli di San Cerbone-Casone: relazione preliminare delle campagne 2015*. «Notiziario della Soprintendenza per i Beni Archeologici della Toscana», in press.

In 2014 we began work on a three-volume book series about Poggio del Molino, which will report the results of our excavations from 2009 to today. So we are doing a very big job to study the site and the finds we collected (structures and artifact). The first will be about the Fortress of PdM (by Carolina Megale), the second will be about the Farm with fish sauce production (by Stefano Genovesi), and the third about the Villa and the late antiquity phase (edited by Carolina Megale, Stefano Genovesi, and Giandomenico de Tommaso with contribution of many University of Florence students).

MoS 1.3 Gray Literature and Other Dissemination of Your Results

Gray Literature

- C. Megale, S. Genovesi, *La campagna di scavo 2015 at San Cerbone, Baratti*, Report submitted to the Superintendence of Archaeological Heritage in Tuscany.
- C. Megale, S. Genovesi, *La campagna di scavo 2015 at Poggio del Molino*, Report submitted to the Superintendence of Archaeological Heritage in Tuscany.
- P.P. Mariani, L. Riccadonna, *Studio antropologico della tomba a sarcofago n. 3 della necropoli di San Cerbone*, Baratti, Report submitted to the Superintendence of Archaeological Heritage in Tuscany.
- P. Perpignani, F. Veronese, *Relazione restauro dei mosaici pavimentali della villa romana di Poggio del Molino 2015*, Report submitted to the Superintendence of Archaeological Heritage in Tuscany.

Educational Resource/Curriculum developed and distributed

- University of Florence, Department of Classical Antiquity. 8 weeks of training course to the Roman Settlement of Poggio del Molino, for 12 undergraduate students in Classical Archaeology. The participation give them academic credits.
- University of Arizona, Department of Anthropology. 4 weeks of training course to the Roman Settlement of Poggio del Molino, for 5 undergraduate students in Classical Studies. The participation give them academic credits.
- University of Hofstra, Department of Classics. 4 weeks of training course to the Roman Settlement of Poggio del Molino, for 1 undergraduate student in Classical Studies. The participation give him academic credits.
- Union College, Department of Classics. 4 weeks of training course to the Roman Settlement of Poggio del Molino, for 2 undergraduate student in Classical Studies. The participation give him academic credits.
- Week-end of hands-on experience for 15 students who followed the Course "Archaeology and Art of Ancient Italy" team taught by Carolina Megale and Erika Bianchi at The International Studies Institute at Palazzo Rucellai (Florence).
- Weekend of hands-on experience for 10 local volunteers who wanted discover what is archaeological research.
- A Day as an Archaeologist, for about 40 local children from 6 to 12 years to learn the methods of archaeological research and to discover the archaeological area of Poggio del Molino, in the territory where they are growing. Organized with the support of Obabaluba Society owner of a Playground in Piombino and Circolo Interculturale 'Samarcanda', Piombino.
- Archaeocamping, a weekend as an Archaeologist for about 30 children from 6 to 12 years to learn the methods of archaeological research and to discover the archaeological area of Poggio del Molino, in the territory where they are growing up. Organized with the support of Obabaluba Society owner of a Playground in Piombino.
- Educational 'Settembre Pedagogico', 10-11 September, 2015 92 teachers from the province of Livorno, visited to PdM to organize visit for their classes and students.

- One-day visit for member of Credito Cooperativo di Castagneto Carducci (local bank), 19th June PdM, 55 people.
- Open night of PdM for local citizens, 12 July, 2015, 29 people.
- One-day visit for members of FAI (Fondo Ambiente Italiano) at PdM, 5th September, 43 people.

School class visited research site

At Poggio del Molino and San Cerbone to learn more about the job of an archaeologist and discover a piece of Etruscan and Roman Populonia: hundreds of young students (many classes of various schools coming from different countries of Italy) visiting the Archaeological Park and stopped at our excavation where some of us describe to them the job of archaeologist, our research, and our project.

- Scientific High-school “Enriquez” Livorno, 200 students visit PdM in November.

Training for school class/teacher/guide

- Piombino, G. Carducci, Classic studies High school. Ten days of training course at Poggio del Molino site (dig, pottery lab and experimental archaeology) for 20 students, from 14 to 17 years of age. They also reconstructed, with the help of architects, a roman wheel to keep water in the well of PdM.
- Training course for the Guide of the Archaeological Park of Baratti and Populonia; lessons by Carolina Megale.

Researchers presented at classroom/lecture/university talk/conferences

- May - Firenze, University of Florence, Lecture about the Etruscan city of Populonia as preparation for the training course.
- May - Pisa, University of Pisa, Lecture about the Roman villa at Poggio del Molino. Course of Archaeology.
- April and October - Firenze, The International Studies Institute at Palazzo Rucellai, Undergraduate University. Lecture about the Etruscan city of Populonia. Course of Roman history.
- May and November - Firenze, The International Studies Institute at Palazzo Rucellai, Undergraduate University. Lecture about the Etruscan city of Populonia. Course of Archaeology and Art of Ancient Italy.
- 22nd June - 17th July - Archaeological Field school: Università di Firenze, University of Arizona, Union College, Hofstra University.
- 22nd June - 17th July - Field school of Restoration of Roman Mosaics in collaboration with RavennAntica Fondation.
- 22 June: Conference “Pitture murali nell’Etruria romana: testimonianze inedite e stato dell’arte”: Stefano Genovesi, *Il laconicum di Poggio del Molino. Cronologia, percorsi e mosaici* and Ilaria Benetti, *Sistemi decorativi dei balnea della villa romana di Poggio del Molino a Populonia*.
- 26 June: Conference “Opening the Past - Game Over 2015”, Carolina Megale, *Archeologia responsabile e responsabilità dell’archeologia: il progetto Archeodig*.
- 26 June: Radio interview “Let’s dig again”, Carolina Megale about Archeodig Project.
- 15 July: Conference Etruscan Museum of Populonia, Paola Perpignani and Francesca Veronese, *Due tessere dello stesso mosaico. Populonia incontra Ravenna*.
- 23 July: Conference Museum of Natural History of Mediterranean Sea, *Carolina Megale and Giorgio Mandalis, Pirati e corsari lungo la costa livornese*.
- TourismA, Firenze 20-22 February 2015 Poster session, *Romani a Populonia. Archeologia responsabile, crowdsourcing and crowdfunding*, Carolina Megale and Giandomenico De Tommaso.

Supported student research/education

- University of Florence, Department of Archaeology. Four weeks of stage to the Roman Settlement of PdM for two graduate students in Classical Archaeology. The participation gives credits for PhD or Specialization.
- University of Pisa, Department of Archaeology. Two Weeks of stage to the Etruscan Settlement of Baratti for a graduate student in Classical Archaeology. The participation gives credits for PhD or Specialization.
- Past in Progress Student Award won by an undergraduate student in Archaeology (Valentina Pescari). 3 weeks of fieldwork experience in order to dig in a classical settlement applying the methods and the principles of archaeological stratigraphy.
- Dissertation: April 29th University of Florence, Ambra Fiorini, *Villa romana di Poggio del Molino, Populonia: il vasellame da mensa dalla discarica tardoantica*.

Dissemination

- FACEBOOK Project PdM Fan Page: <https://www.facebook.com/pdmpopulonia/?fref=ts>
- Italian magazine “Archeo”, month of February 2016, article “Tutti insieme per Populonia” pp. 32-45 (see attachment).
- American magazine “L’Italo-Americano”, article ‘*Baratti, terra promessa per giovani archeologi che arrivano da Arizona e New York*’ (see attachment).
- Local daily journal “Il Tirreno”, 31th May 2015, “La ruota del pozzo ricostruita dai liceali-archeologi”. iltirreno.gelocal.it/piombino/cronaca/2015/05/31/news/la-ruota-del-pozzo-ricostruita-dai-liceali-archeologi-1.11531889?ref=search
- Local daily journal “Il Tirreno”, 16th June 2015, “Volontari e studenti alla campagna di scavi a poggio del Molino”. <http://iltirreno.gelocal.it/piombino/cronaca/2015/06/16/news/volontari-e-studenti-alla-campagna-scavi-di-poggio-del-molino-1.11624899?ref=search>
- Local daily journal “Il Tirreno”, 13th September 2015, “Le orme della storia tra l’archeologia e le vie di Populonia”. <http://iltirreno.gelocal.it/piombino/cronaca/2015/09/13/news/le-orme-della-storia-tra-l-archeologia-e-le-vie-di-populonia-1.12088245?ref=search>
- Local daily journal “Il Tirreno”, 27th December 2015, “Strada per Populonia, apre il cantiere”. <http://iltirreno.gelocal.it/piombino/cronaca/2015/12/27/news/strada-per-populonia-apre-il-cantiere-1.12680718?ref=search>
- Local daily journal “Il Tirreno”, 18th February 2016, “Ritorno a Populonia spiegando lo scavo di Poggio al Molino”. <http://iltirreno.gelocal.it/piombino/cronaca/2016/02/18/news/ritorno-a-populonia-spiegando-lo-scavo-di-poggio-al-molino-1.12981497?ref=search>
- About the flood: Reportage in Archeostorie Magazine of Public Archaeology <http://www.archeostorie.it/reportage/baratti-the-day-after>
- About the discovery of the city of Populonia: News TV <http://www.rainews.it/dl/rainews/TGR/media/Toscana-scoperta-citta-vivi-Populonia-etruschi-79ec8722-a5a2-4ea3-8033-a2da17e9165d.html>

PARTNERSHIPS

MoS 3.1 Organizations Actively Engaged

As we point out every year, our most important partnerships are with the Superintendence for Archaeological Heritage in Tuscany, the University of Florence, Past in Progress Association, and Earthwatch Institute.

Beginning in 2014, our first partner was the Municipality of Piombino, which in December 2013/January 2014 has successfully completed the expropriation of the land where the Roman Settlement of Poggio del Molino is located.

Starting from last year in fact we changed some card on the table. In agreement with the Ministry of Cultural Heritage and the Superintendence for Archaeological Heritage in Tuscany, the Municipality of Piombino will have the ‘granting of excavation’ from the Ministry as owner of the land. The Major has given the scientific direction of the archaeological research (excavation, restoration, studies, etc.) to Carolina Megale and Giandomenico De Tommaso, both professors at University of Florence. All the activities on site will be managed by the no profit Cultural Association Past in Progress. Restoration of mosaics is managed by RavennAntica Fondation and supported by Past in Progress.

As previous years, University of Florence has signed an agreement with the Superintendence so the students in archaeology can participate in the excavation and receive academic credits. Past in Progress has signed an agreement with the University of Arizona so the students in archaeology can participate in the excavation and receive academic credits. The hands-on experience is a fundamental step in the formation of an archaeologist, and we give them the possibility to do this.

OTHER PARTNERS:

The Associazione Archeologica Piombinese supported our research and helped us to publicise our Project to the local community and schools, with logistic support by the Municipality of Piombino.

The International Studies Institute at Palazzo Rucellai: this is a consortium of US and Australian Universities (such as Penn State, Virginia State, Connecticut State, Arizona State and others), based in Florence has been making students aware of our research and bringing students of Archaeology and Roman history to visit the excavation.

The Parchi Val di Cornia Society is a new local partner of the project. From May 2012 we started to make research in the Archaeological Park of Baratti manage by the Parchi VdC Society. They support our excavation from a logistic point of view and promote to local community and to all the visitors our project. We signed a scientific and technical cooperation agreement.

New agreement with Museum of Natural History of Mediterranean Sea and inclusion in the “Network of Museum and Park of the province of Livorno.”

The University of Arizona is a confirmation of an international partner of the project. Starting from July 2013, Archeodig, University of Florence and Arizona University started a new field school for American students at Populonia, with 4 weeks of excavation students may take 3 or 6 units.

The University of Memphis is a new international partner of the project. Starting from July 2014, Archeodig, University of Florence and University of Memphis started a new field school for American students at Populonia, with 4 weeks of excavation students may take 3 or 6 units.

The Union College NY is working with us to become the next international partner of the project. Starting from July 2016, Archeodig, University of Florence and Union College started a new field school for Union College students at Populonia, with 3 weeks of excavation.

CONTRIBUTIONS TO POLICIES OR MANAGEMENT PLANS

SEE POINT 3

MoS 5.4 Conservation of Cultural Heritage

In 2015 at PdM we started the restoration of roman mosaics. The activity is organized as a field school with students and two restorers who teach and follow the work. Restoration is supported by no profit Cultural Association Past in Progress, in collaboration with RavennAntica Fondation (<http://www.ravennantica.it/>). Attached is the report 2015.

MoS 5.5 Impacting Local Livelihoods

SEE POINT 3

SECTION THREE: Anything else

PROJECT FUNDING

The Past in Progress no-profit Association, based in Livorno, was founded to promote the archaeological research and support archaeological excavation, such as Poggio del Molino (Carolina Megale is the President, Giandomenico De Tommaso the Vice-president). PiP support the Project with the restore of the mosaics and other finds, the reconstruction 3D of the villa, the web site of PiP and Archeodig Project. PiP, moreover, covers the expenditure to the researcher to participate in national and international conferences and meeting. Pip gives a Student Award for a Student in Archaeology to participate for 1 month in our Project (covering just meals and accommodation, unfortunately not the flight).

The Municipality of Piombino covered some expenditure for running water on site, for the excavator to extend the area of digging, removal removed soil from the site, cleaning area every season from the vegetation, some tools.

The Parchi Val di Cornia Society provides a room with projector for theoretical lessons to students and volunteers.

CROWDFUNDING FOR POGGIO DEL MOLINO

In 2015 we received:

- € 5.000,00 donation from Ugo Fumagalli Romario. We spent the contribution for the project of the covers of mosaics restored and the cover of the first room;
- Art Bonus is a tax benefit provided by a new law (n. 83 del 31/05/2014) for donation. To give Art Bonus to donors we inserted PdM in the governative project website: <http://artbonus.gov.it/area-archeologica-di-poggio-del-molino-populonia.html>
- “1 € per Poggio del Molino” is our fundraising campaign in support of the archaeological site. We describe to the visitors the excavation in progress, the artifacts collected, our project and then we ask for a **donation**.

ANYTHING ELSE

All the images and attachments will be sent by email with Wetransfer to Kyle Hutton and Cristina Eisenberg.

In particular:

01_figures for scientific report Location 1 Baratti San Cerbone

02_figures for scientific report Location 2 Poggio del Molino

ACKNOWLEDGEMENTS

A special thank to all the staff of EW who works to promote and support our Project.



Earthwatch Institute
114 Western Avenue
Boston, MA 02134
U.S.A.



-  **1.800.776.0188**
-  info@earthwatch.org
-  earthwatch.org
-  facebook.com/earthwatch
-  twitter.com/earthwatch_org