

EARTHWATCH INSTITUTE ANNUAL FIELD REPORT

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Completed by: Alessandro Casoli

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Project title: Fountains and Tabernacles of Tuscany

Cover letter to volunteers

Dear volunteer, dear friend,

Tabernacles and fountains belong to a time which seems to be out of history, but they testify to the religious beliefs of the population, the century-long construction of networks of roads thanks to the flourishing of many civilizations, but also networks of relations between persons and from persons to the landscape of a territory, first source of inspiration of a culture. This phenomenon in past times was so important that a month doesn't pass without us getting reports of new structures in the relatively small area of our research. Many appear during the periodical cleanings done by farmers in neglected and overgrown fields and woods, others emerge from the memory of a senior who remembers the landscape of his childhood; often these are only poor ruins, but sometimes they are well conserved to come back to light and human use.

The restoration of Madonna della Tosse fountain was a very important step for conservation of the fountains in the area and is now also a symbol of a renaissance of interest and pride for the local cultural heritage. Completed in just three months it demonstrated how much can be done in the direction of recovery of the landscape just beginning from the points which have a particular affection for the people. Two main fountains of the area like Castagno's and Saint Martin were brought to an excellent state of restoration.

So we want to thank you for your help during last summer's field research activities. The achievements we reached gave us clearly the dimension of how you made really, the difference.

Alessandro Casoli

Stefano Pelagotti

Alberto Marcocci

Elisabetta Su

Geronimo Echeverria

Reporting on research objectives

Provide a summary of progress this year towards each of the objectives stated in your most recent research proposal.

Objective 1: *Restoration on tabernacle and fountain sites*

Data collection on the sites

Castagno's fountain

a- cleaning of vegetation on the fountain and remaining medieval stone road, the "Salt way" from Volterra to Florence.

b- data collection for further restoration

c- control of structural integrity, then work on eventually brick lack and repairing mortar joints

First cleaning of the site was operated by the time of discovering it in 1994; later it was systematically cleaned in 2007 and then in first months of 2008 when it was also consolidated.

Team 1 in May had a part in making reliefs of the fountain and some suggestions for further restoration, through observation, drawing and pictorial documentation.

Phases of restoration work with Team 2 proceeded as below:

- cleaning of vegetation around the fountain and on the ancient road, especially to avoid the roots of wild vegetation to mine again the rear of the main wall of the fountain;
- restoration of the left wall of the fountain using synthetic resins, water and mortar injection -where possible- and reconstruction with local at disposal stones in the corner where the wall collapsed some years ago for pulling action of tree roots;
- tracing of a tothing system to connect along the cracks the parts of the fountain;
- mechanical and chemical cleaning of the vertical surfaces of the two main basins of the fountain to remove biological material, dirt and tracks of later hands of concrete;
- mechanical cleaning and study of the outside floor of the fountain. During this phase in an area apparently on the margin of the fountain, a line of low walls was found just a few centimeters under the surface and revealed to be a water basin filled with earth and debris of pottery, ironwork and glass belonging to a period from XVI to XIX century and a very confused stratigraphy.

Work was stopped after the finding of this older (medieval?) fountain basis just under the visible structures. To avoid that the exploration of this basin could provoke structural problems and damages to the fountain, we decided to momentarily suspend the work.

There was only a vague track of the existence of this older fountain, when a file of XVI century conserved in the Archivio di Stato di Firenze, states the construction of the fountain for water refurnishment of the caravan mules loaded with salt ore, as an adaptation of an older fountain, in the area of Castagno. We know now that this older fountain was just in the same place and probably remains partially under the visible fountain, where it will remain for ever.

A new structural reinforcement was done in October 2008.

Expected date to continue the work towards this objective:
spring-summer 2009

d- connection with water of the spring (only probable);

e- if necessary covering the walls (basins) with a proper plaster layer;

further phases...

- f- restoration of the inside (made of bricks) and outside (made of stone) floors of the fountain;
- g- completion of the toothing of the parts of the fountain;
- h- restoration of the old tabernacle surmounting the fountain;
- m- restoration and integration of the sand stone surfaces of the fountain;

Objective 2: *Restoration on tabernacle and fountain sites*

Data collection on the sites

Fountain of Madonna della Tosse. Still served by water. People around followed in past times the tradition to let benedict this water -once a year- from the visiting Priest of Castelnuovo d'Elsa during a pilgrimage to a near chapel, drawn in the second half of XV century by the florentine painter Benozzo Gozzoli.

- a- dig out earth, brick and vegetation in the rear part of the fountain
- b- data collection on structure discovered under removed material
- c- reparation of the main brickstones basin
- d- hydraulic work on water pipe connection to the spring
- e- light mason work with original materials
- f- replacing the little stone basin on the front of the fountain
- g- integration of submital parts of the fountain walls.

First cleaning of vegetation and a test on the state of conservation of the artefact were done in 2006.

After extensive structural work, including the dismantling of the back wall of the fountain, and its rebuilding according with the original (still visible) design and the complete exploration of the stairs and water cistern and a first classification of all discoveries (bricks, earth pipes fragments, pottery, glass and metal items), was done in May by volunteers of Team 1. Relieves for cartographic use were done by computer-assisted methods by Team 1. We have continued to work on the fountain with Team 2, and partially with Team 3 and only to train volunteers on some aspects of restoration work. Team 2 worked on the restoration of the cistern, its coverage, complete restoration of the little and main basin, side support and restoration of the brick stairs. The little basin was not replaced, as thought in origin, but integrally disassembled, cleaned by heavy concrete layers and restored to permit to have it in place as in the past in the original form. Some hydraulical work was also done to avoid damages of running water on the built structures (in front of the fountain, in the rear, and on the floor basin) and to help people (who still drink this excellent water) to pick it up. Team 4 worked also later -part time- for the reconstruction of hundreds of earth pipe fragments founded, belonging to the old water line connecting the spring with the fountain. Inauguration is scheduled for 2009 (May-June).

Expected date for commencement of work towards this objective:

COMPLETED

Objective 3: *Restoration on tabernacle and fountain sites*

Saint Martin's fountain.

Phases:

- a- cleaning of the area, little excavation trail around the fountain to verify presence of older structures below the present fountain
- e- restoration and integration of outside-the-basin floor

other...

- g- workshop for non conventional bricks
- h- workshop for stone proof and production

First cleaning of the fountain, after its partial destruction in 1998, was done by Eta Beta in 2006. Many relieves and analysis drove to a project of restoration in 2008, approved by the Soprintendenza in August 2008.

- cleaning of the area around and light removal of first earth layers to discover eventual under-earth structure was the first phase of the work on this site. This latter operation, after a couple of days caused us to infer that the north border of the fountain was no longer in place (destroyed or removed) and the frontal stone floor was almost entirely in place as at the time of fountain construction. These two facts had the consequence to operate:
 - 1- an integration of the northern border, using special bricks;
 - 2- need to examine one by one the original stones to proof their capability to withstand future trampling on the restored frontal place of the fountain.
- integration with proper brick material of the outside of fountain main wall, to restore the original dimension of it.
- study of the "water line" in the basin in relationship with the reconstruction of the destroyed washing table (the long, brick-made oblique structure used in the past for washing work).
- reconstruction on main wall top, according to pictorial and graphical documentation, of the washing table of the fountain. It must be noted that the original look of the upper side of the fountain was since 1998 visible; our goal is then to re-establish it (according to documentation) as many people remember it.
- production in little craftsmanship scale of the special bricks in use in XIX century (longer and thinner than actual mass-production items) in a restoration workshop directly on the restoration yard. Special wooden moulds used in recent past for bricks production were used with local clay and original methods of work to produce about all the 120 needed bricks;
- checking and (where needed) production of stones for the front place of the fountain. In place stone pieces were classified by number and dimension to permit removal for inspection and further replacement in site of the original, or production of a new stone to put back in place of the older weak one;
- replacement and dimensioning of the basis layer for the stone place. During this work we discovered underneath, the exact points where some of the seven stone pillars surrounding the fountain stood originally; the tracks of them were drawn before in the graphical prospects of the project, only by inference and positioned in likely positions.
- mechanical and chemical cleaning of the central part of the fountain and in some cracks of the main wall, to remove from surfaces and decorations the mineral spots of mortar and concrete, the biological colonies (algae, lichens and annual and perennial plants) and many layers of dirt (especially air pollution-originated dust).

- b- hydraulic works to reconnect the fountain to spring water (only probable);
- c- replacing and/or restoration of decorative stones in "pietra serena" placed in brickstones walls;
- d- restoration and integration of the inside-the-basin floor;
- f- repositioning of original stone pillars around the place surrounding the fountain;

Objective 4: *Data collection on the sites*

Saint Antony's Tabernacle. Well documented sixteenth century structure built by an old landowner family of the low lands of Gambassi. Originally internally painted in frescos, which are now lost.

Work on this structure was essentially to evaluate the state of conservation of structures inside and outside the building. Exceptionally and for the first time, it was possible to visit inside the Chapel (normally closed) with Team 3; volunteers of this team made also some manual measurements of the structures and pictorial documentation (also of the internal frescoes which are in very bad state of conservation).

Team 4 volunteers were able to put the structure in the maps, by computer-assisted methods for cartographical work and GPS. Even it was not easy, the field work was also an occasion to understand georeferential research elements. They completed the pictorial documentation on the structure and later made files of the artifact with the collected data.

The chapel, a private estate but completely accessible at public view, is situated in a very important crossing of old and new ways. Its further restoration depends in big part on the future attitude of the owner.

Expected date for commencement of work towards this objective:
2009 or 2010

- a- dehumidification of surrounding soil;
- b- removing of transmitted vibration from the main road traffic source;
- c- study of structural conditions;
- d- mortar and bricks integration where needed and extraordinary maintenance of the roof;
- e- new outside plaster covering;
- f- apposition of restored frames (door);

Objective 5: *Survey and studying on unknown or poorly known structures in the research area*

During the presence of the volunteers from Team 1 to Team 4 we had the occasion to receive reports of seven new structures, three in Gambassi, two in Castelfiorentino and two in San Miniato.

In Castelfiorentino just ½ Km from the site of Saint Martin's Fountain we discovered a nice niche fountain partially carved in a clay hill with a local noble family coat of arms.

We visited it with the team and tried to collect information regarding it. Another presence was reported by the community of Castelfiorentino and by a citizen of Castelnuovo d'Elsa in the last days of Team 4, but we found that the structure was already destroyed just a few days before by a mechanical digger/ excavator, during clandestine excavations.

In Gambassi, a fountain not far from the main village, on the line of the old Salt Way was remembered by a retired person; on examination we just found a few ruins of it in the field. Another nice fountain was visited by some volunteers of Team 2 on the road to Volterra in Villamagna, lightly restored about ten years ago and now newly abandoned. With Team 3, in Montenero along the old Salt Way connecting Gambassi to Volterra, during a walk we visited and took pictures of Our Lady's Milk fountain, a sincretic example of tabernacle and fountain. The two structures in San Miniato, were not visited because it is outside our area of research, one of the structures was revealed later to be a very important fountain with four basins completely surrounded by wild vegetation.

With some volunteers of Team 1, we made a round tour to collect the position and some other data of already known tabernacles and fountains useful in future for georeferential matching.

Expected date for commencement of work towards this objective:
2009-2010, but always in progress

Objective 6: *Organizing old and new collected data for further use*

With Team 4, after we had a wide tour in the entire research area, volunteers worked on the elaboration and inputting of data collected by themselves (including pictures, observations, written reports) and other volunteers and staff members, in our file restoration & maintenance oriented computer system. This information will contribute later to the decision making process, on the choice of sites to be restored, maintenance strategies, and will be used for GIS representations.

Expected date for commencement of work towards this objective:
2009-2010, but always in progress

Non-technical summary of results

Give an account of the data collected and results (inputs and data) for the period covered by this report, mentioning any emerging trends.

The most important result of this first Earthwatch research period was the restoration of an important fountain on the medieval road which connects Castelfiorentino to the castle of San Miniato.

The fountain is strictly related to the presence of a frescoed late-middle age tabernacle, now visible in the brand new inaugurated museum of Castelfiorentino, and the age-old presence of fresh drinking water.

Two other fountains were investigated in 2008 and the restoration is already in progress with very good results, the first is dated to XVI century on the way from Volterra to Florence, the second stays on the Francigena Road, connecting in the Middle Ages, Northern Europe with Rome. In these two latter restoration yards we begin to have some evidences of the building process of the fountains: few new buildings are beside historical restorations or re-buildings, is not clear yet if this happens because of the historically scarce presence of spring water in the area or for the continuity and frequency of the road system network during the centuries. Even though we have been carrying out this research since 2006, in 2008 we found additional structures which have direct connection with the research, which are totally or partially new for us, and with some important aspects. A wide study of them is also a new challenge.

How do these data contribute to achieving conservation impacts? (e.g. actions based on results, management plans, site protection)

In the first instance it is now widely clear to the public, that these “minor” examples of buildings are not out of the history, even we know not so much about them, yet. Surely is almost reached the consciousness of the indissoluble relationship of a landscape with such kind of human artefacts.

In the fall of 2008 we held one of the first big events to introduce fountains and tabernacles to a wider public. Hundreds of people had the chance at the end of September to see the restored structures and admire the nice, but sometimes difficult, symbiosis of them with a landscape in rapid and dramatic change.

What is/ are the significance/ benefits of your research at the following levels?

- Local (to the area of the research site)

Restitution of the structures to the local communities

- National / Regional

May offer a best practice case for other areas

- International

Communication of results

In line with our mission, the Earthwatch Institute is committed to research and results that will be disseminated to local, national, and international audiences.

Printed: peer reviewed scientific publications; books / book sections; reports, management plans or policies; fact sheets, brochures, leaflets, pamphlets, posters, academic dissertations, annual reports, proceedings of conferences or workshops; letters; newsletters.

Eta Beta trimester newsletter n°6 of period April - June 2008 (“Bollettino Sociale d'Informazione”) printed in more the 8.000 copies, with mention of EW and the EW volunteer contribution.

Visual: artwork; visitor centre, poster or display, slides, photographs

Gigantic banners hanging on strategic location near the restoration yards involved in the research project, which included EW logo.

Some pictures of activities on the field on Winkflash.

Digital: database; internet - websites, email group/ blog/forum; CD Rom, e-newsletter

Newsletter n°6 sent also by e-mail to thousands of e-mail contacts, with mention of EW and the EW volunteer contribution.

Mass media: broadcast production; film; TV, radio, print (newspaper/ magazine coverage); Press releases; press conference; interview, article creation; press trip

Even we have many and good contacts with mass media, the holiday period in which big part of the research fall (month of August) discouraged for the moment the use of our news messages on printed media and radio-television broadcasting.

Meetings and conferences: presentations/ lectures; conferences; workshops; training sessions; discussions; local community meetings and events.

Restoration and survey workshops for the local community is in program from January 2009.

A conference on the research in year 2008 is in program in Castelfiorentino in March 2009.

Educational resources: lesson plans; resource packs

Selected data, pictures, texts produced during the research periods will be available for educational purposes, for teachers and schools who want to adhere to our educational program on fountains and tabernacles. This program starts every year in February.

Other (specify):

Restored structures, and structures that we are in plan to restore form a tour which was scheduled for the European Cultural Heritage Days (end September). About 250 visitors of Italian and international provenience (some Australians and English people) had the chance to see the progress of the work and the importance of fountain and tabernacles for worldwide known Tuscan landscape.

Educational Opportunities

Does your project directly or indirectly involve the following groups in your research topic?

- **Local communities**

The culture alderman of Castelfiorentino acknowledged the EW volunteers of Team 4 for their efforts in the research on tabernacles and fountains in Tuscany. Lobbying on companies which have direct interest and business in water.

Invited with a stand to "Dire & Fare. Festa della Geografia!" The event of best practices for the public administration and environmental education, Florence 12-16 November. We brought our "GA: giochi d'acqua" and "FT: fontane e tabernacoli" children workshops both inspired by the research experience on fountains and tabernacles.

- **Students**

Paola Tomei student of the Art Academy of Florence chose, a few weeks ago, for her thesis dissertation on the ritual and musical aspects of tabernacles in the research area.

Valerio Simoncini student of the Science Faculty of Florence is in plan to choose for his thesis dissertation on relationship between trees with human originated water points (fountains) along the Francigena Road in the research area.

- **Other groups**

"Italian Reclamation Week" in May 2008, "European Cultural Heritage Days" in September 2008, soon the "Italian Scientific Culture Week" in March 2009 "Culture Week" in May 2009.

In all these events at the visitors is offered to learn more about the research project, with eye with the landscape

Research Exhibition in Saint Charles Church in Castelfiorentino in February and March 2009, probably exhibition will move in Gambassi Terme.

How does your research help these groups better understand and act towards the conservation of a sustainable environment? (Please provide specific examples of any activities you are aware of.)

It seems that the local company for aqueduct and drinkable water will decide soon to invest modest financial resources in the connection of some traditional fountains with drinkable certified water from the aqueducts line, or with special little scale purifying plants to have certified drinkable water from spring sources.

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