The study of thermalism in the Roman age. Methodological proposal.

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Abstract

Stemming from a project of the universities of Padua, Verona and Genoa, which was funded by the Ministry of University and Scientific Research and that in the past years studied the phenomenon of thermalism in Italy in the Roman age, our current researches aim to study and describe exploitation modes and ancient settling in connection with thermo-mineral springs. The investigated areas are the Roman provinces of *Raetia*, *Germania Superior* and *Inferior*, *Gallia Belgica* on the one hand, and *Gallia Lugdunensis* and *Narbonensis* and *Aquitania* on the other. In this contribute we present the interdisciplinary methodological approach, which brings together archaeology, epigraphy and the analysis of literary sources. The gathered data is collected on an online database that will be displayed.

1 Introduction

Exploitation of thermo-mineral water springs is an antique phenomenon and the importance that it played among Roman society is well known. Bathing establishments, settlings and infrastructures were built by them not only in Italy, where an ample number of springs supported a usage that dates back to the pre-Roman age, but also in other provinces of the Roman Empire. The mark that this exploitation system left on territories is deep and sometimes still well visible, constituting the basis of modern thermo-mineral resorts.

In the past decades, a few studies investigated the subject of ancient thermalism: some of them focussing mostly on the description of architectural remains, some others on the in-depth portrayal of single sites.

In the years 2008-2012, the Universities of Padua, Verona and Genoa led a research project that investigated ancient thermalism in Italy in the Roman age; the Italian Ministry of Education, University and Scientific Research (MIUR) funded it. Its novelty lay into an interdisciplinary approach, which drew together archaeology, epigraphy and the study of literary passages for mapping and describing Roman thermal sites in Italy. The research focussed solely on sites with thermo-mineral water springs and in the end more than 140 sites were catalogued on an online database (Aquae Patavinae 2011 [1], Aquae Patavinae 2012 [2], Aquae Salutiferae [3], Cura, preghiera e benessere [4]).

2 Developed methodology and evaluation parameters

Stemming from that research are two PhD projects, both currently carried on at the University of Padua by the writers. Their aim is to study and describe exploitation modes and ancient settling in connection with thermo-mineral springs; the investigated areas are the Roman provinces of *Raetia*, *Germania Superior* and *Inferior*, *Gallia Belgica* on the one hand, and *Gallia Lugdunensis* and *Narbonensis* and *Aquitania* on the other. The interdisciplinary methodology, which was implemented by the Italian research team, is carried out by both studies.

The following phases articulate both projects:

1. Initial census of all the possible sites: this first collection was mainly based on published bibliography and aimed at creating a list as comprehensive as possible. Because of that, the list also included modern thermal resorts.

However, in this phase a solid basis was given by books that aimed to present all the thermal resorts of entire countries: they were written in the 19th century for touristic and medical purposes and answered the strong interest that thermalism and spas had in Europe in that period (Greppo [5], Meyer-Ahrens [6], Labat [7], Bonnard [8]).

2. Identification of sites with adequate features: the vast number of sites of the first list needed to be evaluated in the light of given parameters (see *infra*).
3. Sites filing on an online database: a new database was realized. Differently from the database created for the project about thermalism in Italy, the new one can contain data from potentially any country. At the moment it is hosted on a server of the Department of Cultural Heritage (University of Padua) and only registered users can log in. In it, single sites are described by a system of files (see Figure 1):
    a. Name and position: it contains geographical information, notes about toponymy, archaeological excavations, current state (i.e. if the site is open to visitors) and a brief account on the water's chemical and medical qualities.
    b. Archaeological file: it is split in two sections, one for describing the architectural structure of bathing establishments; the other for artefacts related to cult and religion.
    c. Epigraphic file(s): they collect the inscriptions found in thermal resorts or that, for textual reasons, refer to the exploitation of their springs (i.e. dedications to the spring's deity).
    d. Literary file(s): they collect passages of classical authors mentioning the investigated resort or springs. However, they are often difficult to connect to specific sites documented by archaeological evidence. The mentions tend to be vague and even more so if they refer to areas with more than one water spring and adjoined Roman spa (on this subject, Zanetti [9]). As a result, literary sources are not always the most befitting indicator in this phase of the research.
    e. Itinerary file(s): the mention of the site on an antique itinerary is noted here.
    f. Images: this section is for uploading plans, photos and other relevant iconographic data of the given site.
    g. Bibliography: every site has a specific bibliography file; every entry adds to the general database bibliography.
4. Data processing.

In particular, the list of possible sites realized at the end of phase 1 consisted of more than 400 sites: a number too high to be realistically reliable. It was thus very important to define clearly the evaluation parameters that we were to subject every site to during the in-depth analysis of phase 2.

These are the parameters that we take into consideration analysing the possible sites:

- Water: it is the most important feature. Our research is only focussed on sites with water with specific qualities, in temperature or mineral composition, which make it different from "common water". Therefore, the lack of thermo-mineral water automatically invalidates a site, even if there were archaeological signs of ancient presence.
- Antiquity indicator: it is the main parameter suggesting ancient presence in a site and it consists of the archaeological evidence, whether it be either architectural remains (i.e. water basins, bathing establishments) and/or artefacts (i.e. offerings to spring deities, inscriptions).

To be considered valid for our research purposes and thus be picked for the subsequent database filing, a site should match the first two parameters. Filed sites must have or have had thermo-mineral water springs and evidence of Roman presence, whether it be structures or artefacts, in connection with the thermal spring. That entails that certain sites, where the water does not seem to have special properties for the chemical point of view, are excluded from the list, even if they present relevant archaeological evidence.

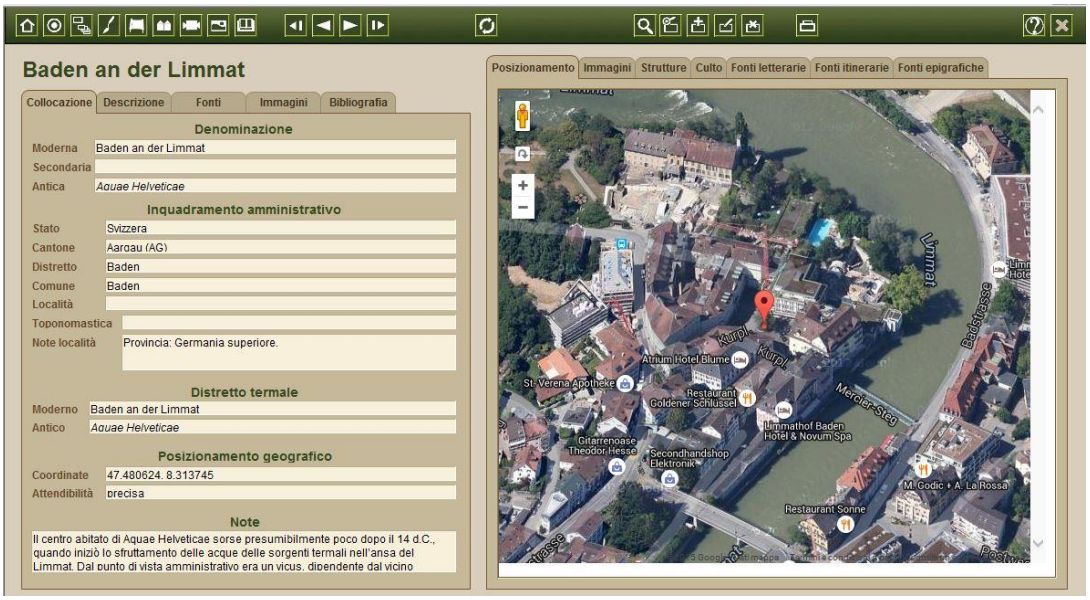

Figure 1: The aspect of a database entry: the site of Baden an der Limmat / *Aquae Helveticae* (Switzerland).

3 Conclusion

The site evaluation and the filing is still underway for both the investigated areas, therefore results are not conclusive yet. However, some considerations can be drawn already.

First, the process of evaluating and filing has already underlined many difficulties. Such complex study requires many competences and eventually many cases remain of dubious interpretation. That is mainly due to the lack of adequate documentation regarding the sites whose antiquity indicator is rather poor (typically, smaller sites without traces of bathing establishments). Moreover, many sites were discovered and excavated in the 18^{th} – 19^{th} century, following the need to build new bathing stations, having thermalism become a popular attraction for the European upper class. Some of those sites are not visible anymore, covered-up or even destroyed, leaving only outdated documentation to posterity.

Secondly, the methodological approach that we borrowed from the prior study on thermalism in Italy can be applied to other geographical contexts with success. In fact, the results acquired at the end of our current researches will be compared with the Italian data set, which is the landmark for studies on thermalism in the Roman age. The comparison will enable to point out similarities and/or differences about architectural structures, forms of religious devotion, settling types that took place in connection with thermal springs between Roman provinces and Italy. Starting the analysis from the archaeological evidence, we expect to draw conclusions about the way that the systematic exploitation of thermal water, carried out by Romans, happened outside Italy and if that happened any differently because of the different cultural underlayer.

It is to be hoped that thermalism will be further investigated in the Roman Empire, resulting in a comprehensive knowledge of such an important phenomenon, which is not only connected with architectural and economical aspects, but also cultural.

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