

# The study of thermalism in the Roman age. Case studies from *Gallia Narbonensis* and *Germania Superior*.

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## Abstract

The article presents two case studies from the Roman provinces of *Gallia Narbonensis* and *Germania Superior*. The first is the site of Aix-les-Bains/*Aquae*, where hot mineral waters were exploited in a bathing complex and two inscriptions dedicated to *Bormo/Borvo* demonstrate the existence of a cult to healing deities. The second, instead, is the site of Bad Niedernau, for which the analysis proved more problematic, due to the lack of Roman architectural remains; however, a numismatic finding inside the spring suggests its ancient utilization and maybe a votive offering connected to the water.

## 1 Introduction

In the previous article we explained the method and the aims of our PhD research, in this one we are going to presents two case studies exemplifying the different, qualitative and quantitative, level of information it is possible to collect about sites exploiting thermo-mineral water during the Roman age.

The studied area includes roughly the modern states of France, Germany and Switzerland. Only in the French area there are some hundred thermal spas, mainly scattered on the Alps, the Pyrenees, the Massif central and the Vosges (Roques [1]). About a hundred are the thermal resorts in Germany and Switzerland as well.

The great number of current spas has often encouraged to transpose this widespread phenomenon also in the Roman age. However, the keen analysis has revealed that in some cases the thermo-mineral aquifer is reached through deep well

drilling, clearly impossible in the Roman time. In other cases, instead, the Roman use is stated on poor bases.

In regards to that, it is useful to remember that almost every site has been the object of archaeological excavations during the 19<sup>th</sup> century, if not earlier. The authors of the excavations were often local scholars or the same spring owners, whose main aim was retrieving valuable objects to sell. Furthermore, at the end of the excavations the construction of the modern thermal establishment often provoked the complete destruction of the ruins, without the proper documentation of drawings, plans etc.

Despite the quality of information, the extended research of thermo-mineral waters gave impulse to the first studies about thermalism in the area, such as the works of Greppo (Greppo [2]) and Bonnard (Bonnard [3]), which are even today fundamental to approach the theme.

This brief introduction is necessary to highlight the starting points of our research and its difficulties. The following case studies show two different models of sites connected with thermo-mineral springs.

## 2 Case studies

### 2.1 Aix-les-Bains

Aix-les-Bains, situated in the south-eastern area of France, *Savoie* department, is known especially as a fashionable spa during the *Belle Époque*, but the utilization of its healing waters dates back to the Roman age at least.

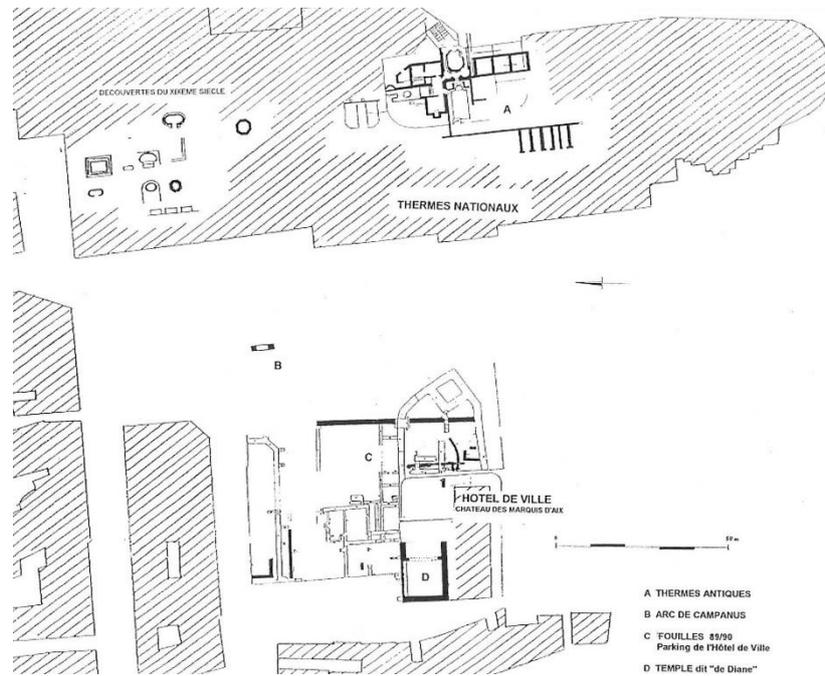


Figure 1: Aix-les-Bains, plan of the monumental centre (from Leveau, Rémy, Canal, Segard, fig. 2, p. 87).

The first fortuitous finds of the Roman bathing establishment took place in the 18<sup>th</sup> – 19<sup>th</sup> century. New archaeological excavations were carried out in the 1930s, during the construction of the modern spa, which still preserves some ruins. The documented Roman bath-house extends over an area of at least 40 m from north to south and 25 m from west to east (see Figure 1). The 19<sup>th</sup> century documentation reveals a large circular pool, 12 m in diameter traditionally called *Bain royal* or *Bain des chevaux*, and a series of small basins, organized in three rows, to the north. Other structures are probably covered by the modern spa. The building is composed of large and small pools, a *nymphaeum*, and rooms with hypocaust heating system. Fragments of marble statues, mosaics and marble slabs demonstrate the high level of decorations. The thermal bath was fed by two springs, *Source d'alun* and *Source de soufre*, characterized by warm waters (40-45° C) rich in sulphur and other minerals. Its proposed date is between the 1<sup>st</sup> and the 4<sup>th</sup> century A.D. with restorations during the 2<sup>nd</sup> and probably at the beginning of the 4<sup>th</sup> century (Rémy, Ballet, Ferber [4], Bouet [5], Leveau, Rémy, Canal, Segard [6]).

The discovery of two inscriptions (CIL XII, 2443; CIL XII, 2444), reused in the bathing-establishment, demonstrates the presence of a cult to the healing deity *Borvo/Bormo*. Dedications to this god came from various other thermo-mineral sites in France

(Aix-en-Provence, Bourbonne-les-Bains, Bourbon-Lancy), Portugal (Caldas de Vizella) and Italy (Acqui Terme) (Diez de Velasco [7], Buonopane Petracchia [8]).

Little is known about the surrounding Roman settlement, where only two other Roman buildings still exist: the *Campanus* arch and the so-called Diana Temple. The connection between these buildings and the thermal complex is difficult to define. The first traces of the settlement are dated to the second half of the 1<sup>st</sup> century B.C. The real development seems to have happened during the 1<sup>st</sup> century A.D. with its peak placed during the 2<sup>nd</sup> century A.D. In the moment of its prosperity the *vicus* seems to reach the surface of about twenty hectares. (Leveau, Rémy, Canal, Segard [6], Leveau [9]).

During the Roman Empire Aix, named *Aquae*, was included in the province of *Gallia Narbonensis*. Thanks to the numerous epigraphic evidences we know its administrative statute: it was a *vicus* and had some autonomy in the management of local matters (Leveau, Rémy, Canal, Segard [6]).

Even though located in a mountainous area, the small centre was also well connected to the road network across the Alps (Rémy, Ballet, Ferber [4]).

Aix-les-Bains is a good case study because it possesses all the required parameters: water with

recognizable thermo-mineral characteristics and healing properties, and antiquity indicators in the form of a vast thermal complex. The site has been the object of many modern in-depth studies, which enrich the available documentation and allow us to have a complete framework of the thermal *vicus* of *Aquae*.

## 2.2 Bad Niedernau

Completely different is the case study of Bad Niedernau. The site is situated in the south-western region of Germany, in the Baden-Württemberg State. The Bad Niedernau spring flows inside a forest and its cold waters are rich in carbon dioxide and sodium chloride. Due to its characteristics, today the water is used for bottling purposes.

In the 1836 researches within the source revealed the presence of Roman objects. The finds consist of a sandstone relief, representing Apollo naked standing with a mantle in the left arm and a lyre in a near pedestal (see Figure 2), and a lot of 300 Roman coins. Various other objects, such as rings, *fibulae*, beads and ceramic fragments are related in the documentation of that time, but do not appear in later reports. The coin evidence and the relief date the Roman frequentation of the spring from the second half of the 1<sup>st</sup> century to the end of the 4<sup>th</sup> century A.D., with a peak in the 2<sup>nd</sup> century (Planck [10], Christ [11], Espérandieu [12]).



Figure 2: Bad-Niedernau, Apollo relief (from Espérandieu 1931, p. 399 n. 638).

The site should be interpreted as an outdoor sacred space where the natural elements were predominant, since no structure surrounds the source, even if only extended excavations in the vicinity could demonstrate this statement.

The case study presents all the parameters (water and antiquity indicators) but the different use of thermo-mineral water deeply influences the archaeological records and its identification and study.

## 3 Conclusion

The aim of these brief presentations of thermo-mineral sites is to show the great difference in the healing water use during the Roman age. On the one hand the hot waters of Aix-les-Bains, in addition to other factors, gave birth to a small *vicus* with an imposing thermal complex, while on the other the cold effervescent source seems to have produced a small local place of worship with no structures at all.

For a complete study on thermalism it is necessary to take account of every aspect of the phenomenon such as minor sites, which are often understated, neither taken into consideration.

This is not a simple task due to incomplete archaeological excavation reports, historical and methodological misunderstanding, but we think that this is a valid and efficient method.

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