

Thermalism in the Roman Provinces. The Role of Medicinal Mineral Waters across the Empire



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THERMALISM IN THE ROMAN PROVINCES

THE ROLE OF MEDICINAL MINERAL
WATERS ACROSS THE EMPIRE

Edited by

Silvia González Soutelo

Universidad Autónoma de Madrid/MIAS

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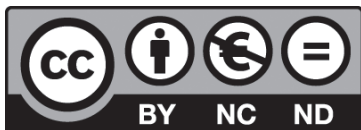
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Introduction

Silvia González Soutelo

Throughout history, mineral and thermal waters have been a source of health and a remedy for numerous ailments and diseases. Before the development of pharmacology, which occurred essentially from the mid-20th century onwards, this natural resource was a fundamental element for all those who, beset by various illnesses, travelled to the most highly valued thermal springs in order to undergo various treatments associated with their waters.

Based on the local population's empirical knowledge of their salutary properties, which had both religious and medical associations, the various types of water present in these natural springs were identified in accordance with their temperature, flow, colour, odour or flavour, which could be used to heal or alleviate certain physical problems. Given the importance the Romans placed on these waters in the process of expanding their Empire, this resource became a highly valued natural asset from multiple perspectives, including both strategic and functional considerations.

Indeed, the geology of Italic areas such as Etruria, Campania or Lazio formed a sort of laboratory in which the abundance of thermal springs, mainly hyperthermal, provided a breeding ground for the use of natural spaces (caves, crevices, pools, etc.), which were gradually copied and integrated through the creation of baths used not only for curative purposes (in the case of mineral-medicinal waters), but which also played a hygienic, social and cultural role (in the case of common water) that was easy to replicate in all settlements during the Roman period.

This is supported, for example, by physician Antyllus in Oribasius (X, 1, 6 and X, 3, 1) who writes in his first book on *Methods of Treatment and on Natural Mineral Baths* that “regarding the baths, some are composed of fresh water of poor quality, whilst others are impregnated with a certain quality and endowed with efficient and manifest properties (...). The action of *natural mineral baths* is far more efficient and energetic than that of *artificial baths*. Indeed, there are a large number of types of mineral waters, determined by the properties of the soils they pass through (...)”¹.

¹ For a more detailed translation and study of this text and other works of classical authors who dealt with different topics on thermalism, see the project website www.healingsspainantiquity.

Thanks to this perception, which was shared by classical authors, the construction of sanctuaries and bathing houses may well have commenced in an Italian setting. Indeed, more and more specialised building solutions and infrastructures would gradually emerge of an increasingly monumental nature that would spread to the new provinces that made up the Empire.

In this sense, together with the steady expansion of hygienic baths, a new model of healing baths appeared that included spaces for immersion and ablutions, with pools and/or bathtubs, as well as the use of mud and *pediluvia*. The fact is, that from the Roman period at least, buildings and thermal complexes were built that made maximum use of these mineral waters, with attention being paid to the engineering difficulties involved in capturing those springs, as well as adapting the baths to the topography of the terrain and the myriad aspects that could affect these springs.

Gradually, many of these thermal sites would feature buildings and services that would allow widely varying settlements to be established around the waters. They included the construction of authentic spa towns, as well as individual facilities, dependent on cities or settlements of diverse nature, where ritual and salutary functions would play a major role in their layout.

However, much remains to be discovered. Despite pioneering work addressing the question of these waters aimed at pinpointing possible differences between baths with mineral and thermal water, very little research has been carried out that centres on the global nature of Roman thermalism, a phenomenon with numerous aspects that are still unknown to us.

That is the objective of this book. Starting from the hypothesis that the buildings that employed mineral-medicinal waters differed from the classic hygienic baths we all know, it features an interesting collection of thermal and archaeological sites located throughout the ancient Roman Empire and which evidence the complexities involved in their interpretation, reflected

es (in progress). This study on classical sources for the study of healing spas is also described in S. González Soutelo and S. Romano 2023. Sources for the study of ancient thermalism: a new proposal for editing and translation. *MonTI. Monografías de Traducción e Interpretación* 15: 179-205. DOI: 10.6035/MonTI.2023.15.06.

in the multiple physical and chemical determinants of these waters.

Indeed, the modern phenomenon of thermalism is that of a thermal-healing model associated with wellness spaces that today have spread beyond Europe, standing directly on sites that are hydrogeologically rich in thermal mineral waters. Yet in order to discover their origins and principles, we must go back to the Etruscan, Hellenistic and Roman worlds to obtain an insight into the plethora of cultural, social, political and economic phenomena that allowed this natural therapy to be put to use.

Furthermore, moving beyond this idea, we consider that the various baths that were constructed from the Hellenistic period onwards were essentially an attempt to imitate the natural sites where these waters emerged spontaneously and naturally. Consequently, the study of baths dating back to the Roman period also allows a far clearer insight into the origin and development of the various types of thermal and salutary complexes associated with each type of water. Many of them would therefore imitate the generation of steam and high temperatures these buildings were capable of through the use of boilers and complex hypocaust and heating systems.

In this sense, this volume addresses various questions of interest in order to understand this phenomenon. To what extent does thermalism display differences and similarities in each of the provinces the Roman Empire was divided into? What are the specific characteristics of each territory? Is this a singular or local occurrence, or can we find elements that are common to all thermal facilities?

In order to delve deeper into these and other aspects, this monograph includes a large number of studies, organised into various sections, featuring some of the most representative and internationally most studied sites and the leading specialists in each. Together, we seek to identify the various construction and functional solutions for thermal spas through the creation of a research network into ancient thermalism that provides a forum for the exchange of ideas and experiences in this field.

Therefore, and under the generic title *Thermal spas in the Roman Provinces: the role of medicinal mineral waters across the Empire*, and in the awareness that thermal waters were a much valued natural resource in antiquity, various authors attempt to respond to a series of questions that have arisen during the course of their research:

Addressing adaptation to topographical and geological conditions, we understand that the bath buildings

that exploited mineral-medicinal waters had to be in keeping with the places where these waters emerged, overcoming the challenges of rivers, hills, or filtrations of different types, which undoubtedly made their construction difficult, as well as their maintenance and subsequent study. An exceptional example of this phenomenon is provided by **D. Kušan Špalj and N. Perok** from the Museum of Varaždinske Toplice (Croatia), in their description of the complex process of excavation and study of a unique thermal complex, whose ancient toponym (*Aquae lasae*) reflects the value that has been attributed to these waters since ancient times. The same is true of the thermal sites of the French Massif Central, studied by the team of archaeologists formed by **L. Augustin-Rolland, B. Dousteysier, E. Fovet, E. Nectoux, G. Rocque and H. Darteville**. Their combined efforts constitute an outstanding example of integration, collaboration and communication, highlighting exceptional sites and benchmarks in European thermalism that were in danger of falling into oblivion.

Likewise, the combination of nature and technical development during the Roman period is exemplified perfectly in the thermal site of Baia (Italy), the object of an in-depth study by **M. Nieberle** analysing the construction of one of the most elaborate thermal sites of entire Empire and a social, cultural, architectural and economic benchmark of the Roman period, located in the famous Bay of Naples. This combination is also reflected in the outstanding examples of adaptation and preparation of complex collection systems in the French sites studied by **M. Marcatto and S. González Soutelo**, which are still in use today at a considerable number of thermal sites. Further examples in Eastern Europe and Turkey are presented by **G. Fenyés** in the military context of the Roman limes with *Aquincum* (Budapest, Hungary) through the origins, singularity and thermal tradition of one of Europe's major thermal spa capitals; or in the architectural and monumental testimonies in the Anatolian peninsula by **A. Yaraş and G. Üsküplü Akgül**, focused mainly on the western area of modern-day Turkey, where local and Greco-Roman traditions come together in a territory with a longstanding thermal trajectory that extends to the current day.

Turning to the role Roman spas played in the landscape (the object of our ongoing RDI project "*THERMASCAPE: El paisaje termal en Hispania. El papel de los recursos termales en la península Ibérica desde época romana*" PID2022-138809NB-I00), the monograph includes an insight into the site at Bansko (Strumica), an exceptional thermal building and sanctuary situated in the countryside of what is today the Republic of North Macedonia, analysed by **V.P. Sekulov**, the site curator. Similar interest can be found in Italy, both in the research conducted by **M. Bassani**, at the thermal

site of Montegrotto Terme (*Aquae Patavinae*, just outside Padua); and again in Baia (Italy), where the built and functional entity continued until the Late Antique period, thanks to **G. di Lucca's** fascinating observations into this Mediterranean site associated with the city of Cumas; or in the magnificent example of the Etruscan-Roman sanctuary and healing site of *Bagno Grande* in San Casciano dei Bagni, also in Italy, presented by **J. Tabolli and E. Mariotti**, which in the last few years has generated a wealth of new and valuable information as well as highlighting the phenomenon of thermalism from the Etruscan period onwards.

Joining these contributions are the recent results of archaeological investigations conducted in highly significant sites such as *Aquae Helveticae* (Baden, Switzerland), by the archaeologist **A. Schaer**, who offers an intriguing diachronic vision of the thermal phenomenon in this Central-European spa town. The same is true of Bagnères-de-Bigorre in the French Pyrenees, studied by **L. Costa and R. Sabatier**, who address the role of these waters in these high mountains up until the current day. This same proposal is posited by the international team comprising **T. Soeiro, S. González Soutelo, H. Bernardo and J. Sampaio** regarding the Roman site of Termas de São Vicente (Penafiel) for the analysis of this spa within its historical and territorial context (between the 1st and 5th centuries AD). Similarly, the work of archaeologist **S. Carneiro** describes the exceptional

testimony of the Roman spa of *Aquae Flaviae* (Chaves) and its surrounding area, as particularly topical case studies located within Portuguese territory.

This volume of studies would not be complete without a small section discussing the role of thermalism in shaping of the axes of communication in the Roman period and the role these waters may have played in the creation, emergence and development of new settlements in very diverse geographical areas. This section includes a case study of the Roman province of Thracia (in present-day Bulgaria), the work of **M. Avramova**, who analyses the road network laid out between some of the main thermal sites in the eastern part of the Empire. North Africa is also addressed thanks to the update on research into road layouts and thermal enclaves in the different African provinces from **P. Zanovello and J. Turchetto**.

As has been very briefly set out in this introduction, together, these examples form a tour of the Mediterranean that will enable us to begin to trace a global vision of thermalism from antiquity to the present day. Looking beyond the more traditional studies of these sites conducted in previous centuries, we can observe a change of mentality among researchers, and the unanimous perception of a new direction in research addressing this phenomenon, in keeping with the singularities required by the study of a natural resource that has been highly valued since antiquity.

Ceremonial Buildings at Thermo-Mineral Springs: The Example of Via Scavi at Montegrotto Terme

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Abstract: This article proposes a new interpretation of the lesser-known structure known as the ‘Polylobate building’ in the thermal area of Viale Stazione-Via degli Scavi in Montegrotto Terme, near Padua. Although this building was interpreted as a residential building in the past, no conclusive data has ever been presented to support this hypothesis. In essence, the available information was very limited and most of the articles in which it was cited never attempted to understand the typology and structure of this monument.

Thanks to an in-depth analysis of data from excavations carried out in 1970, and a comparative study with other similar buildings attested both in Italy and in other thermo-mineral healing structures, this paper will offer new documentation useful for understanding the relationship with the buildings in the archaeological area of Montegrotto Terme and with analogous structures normally interpreted as *nymphaea*.

Consequently, this research offers new insights to attempt interpret the so-called polylobate building as a *nymphaeum* with a sacred-ceremonial function to be found within the thermo-mineral area of *Aquae Patavinae*, but also in other healing contexts attested throughout the Roman Empire, from Italy to the eastern and western provinces.

keywords: thermalism, Montegrotto Terme, archaeological area, *nymphaeum*

Introduction

The archaeological area of Via Scavi is in the center of the present-day town of Montegrotto Terme, whose salty-bromine-iodine waters which can reach 86°C, are used today both for therapeutic bathing in case of joint and skin problems, and, through vapors, for inhalation cures against breathing disorders. Furthermore, the treatments in the Euganean area with thermal mud are very famous to cure joint and skin diseases.

The archaeological context, excavated during the 18th and 20th centuries (Figure 1), presents three pools for therapeutic bathing (letters A-C) with rooms for treatments (no. 1-7), a small theatre (E) and a so-called polylobate building (D). Furthermore, a complex water system (G) and two *noriae* (water wheels, H), that probably used thermal waters from a Roman reservoir (M) under the present Viale Stazione, served the pools and the theatre in its late phase (perhaps a fountain was built in the middle of the orchestra in the 3rd-4th century AD). To the late phase pertain the specular small rooms (F), perhaps service buildings.

The structures date between the mid-1st century BC and the 3rd-4th centuries AD, with restoration and rearrangement work as early as the 2nd century AD, possibly due to landslides and subsidence of the geological substrate. The remains were part of an

extensive settlement called *Aquae Patavinorum* or *Patavini Fontes*: it consisted in several settlements, only partly visible today and was not far from *Patavium*, on which it depended administratively from the second half of the 2nd century BC to the full imperial age.

On the archaeological area of Via Scavi several contributions have recently been proposed for the baths and the theater,¹ while to date there is a lack of a study specifically devoted to the so-called ‘polylobate building’ considered a *therma* or *nymphaeum* in a few limited syntheses works (Tosi 1987: 188) that have not sufficiently developed effective arguments for understanding its function and relationship to other structures and infrastructures. To attempt to overcome this gap in studies, I have recently published a pertaining article,² thanks to the archive dataset of the Archaeological Superintendency and new interpretive hypotheses. I want to present here additional elements concerning the structure and its relation to

¹ Many articles are included in the proceedings of the Conference *Aquae patavinae* 2011 (Bassani, Bressan and Ghedini 2011) and *Aquae patavinae* 2012 (Bassani, Bressan and Ghedini 2012), with bibliography; for a general overview see Ghedini *et al.* 2015 and Bassani *et al.* 2021.

² Bassani 2022. I would like to thank the colleagues of the Archaeological Superintendence of Padua for their availability, in particular Chiara D’Inca, Carla Perazzini, Cristina Vallicelli, Alessandro Facchin, Francesco Bighin. The study of the polylobate building has been carried out during the Horizon European Project *urAllure* (www.rurallure.eu, no. 101004887).

Montegrotto Terme, area archeologica "Via Scavi"

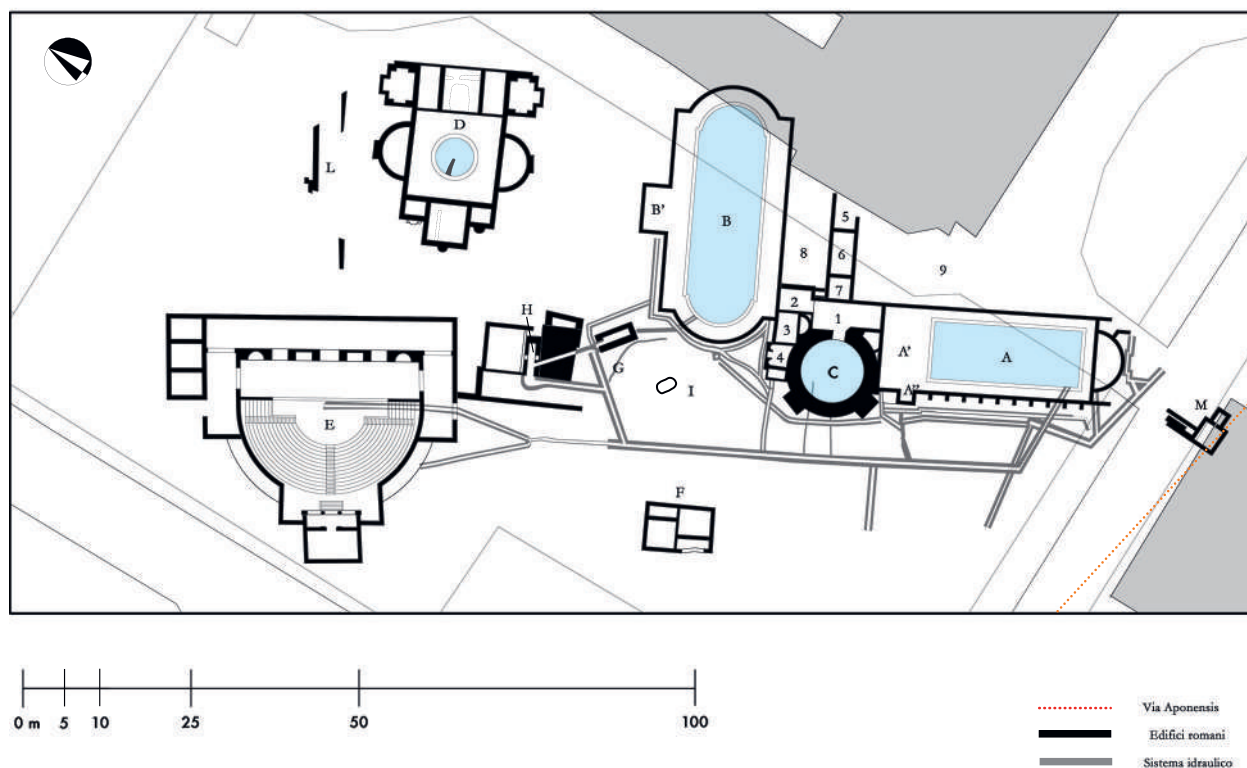


Figure 1. Montegrotto Terme, Viale Stazione/Via Scavi (Veneto region, Italy). Plan of the Roman archaeological area: A-C, thermal pools; D, polylobate building; E, small theatre; F, late buildings for service uses; G, water network; H, water wheels; I, small water basin; L, corridor; M, thermal cistern (by L. Catana and M. Bassani).

the topography and pilgrimage routes related to the *Patavini Fontes* in Antiquity.

The polylobate building

In the archaeological area of Via Scavi there has been a succession of excavations and restoration works, of which those implemented in the 1980s heavily impacted on the ancient structures: in some cases, the restoration involved the massive use of concrete and new stones or bricks that caused considerable alterations to the ancient masonry, thus preventing a full understanding of its functioning. In other cases, it was the construction of buildings for tourists that caused obliteration of part of the two major thermal pools, as was the case with the Montecarlo Hotel erected in the 1960s and now in complete disrepair: it destroyed parts of the large Roman pools and ancient remains close to them (Bassani and De Venanzi 2024).

The excavation of the so-called polylobate building follows the period of resumed investigations of Via Scavi, between the 1950s and 1970s, conducted by the Archaeological Superintendency: unearthed in the

summer of 1970, very little excavation data remain of the building, but I have been recently able to track down some images of those works in the photographic archives of the Superintendency.

Placed northeast of the small Roman theater and north of the three pools, the building occupied a total area of 672m² (see Figure 1): it was therefore of considerable size, and, in terms of volume, it must have been a monumental construction. From vestibule 1 (6.3x5.3m) two pairs of identical and symmetrical rooms, 2-3 and 4-5, were reached to the north and south, although it cannot be ruled out that the latter had independent external entrances. The dimensions of the elongated rectangular rooms 2 and 4 measure 6.6x3.4m, while the multilinear rooms 3 and 5, in their maximum measurements, are 4.4x5m: the latter have three rectangular exedras, which enclose to the north and south this first group of rooms.

The core of the building should be recognized in a large central room 6 with a square floor plan (12.70x12.80m = 43x43 *pedes*), provided with a circular basin A (5.6m) that was served by a pipeline (for adduction water?)

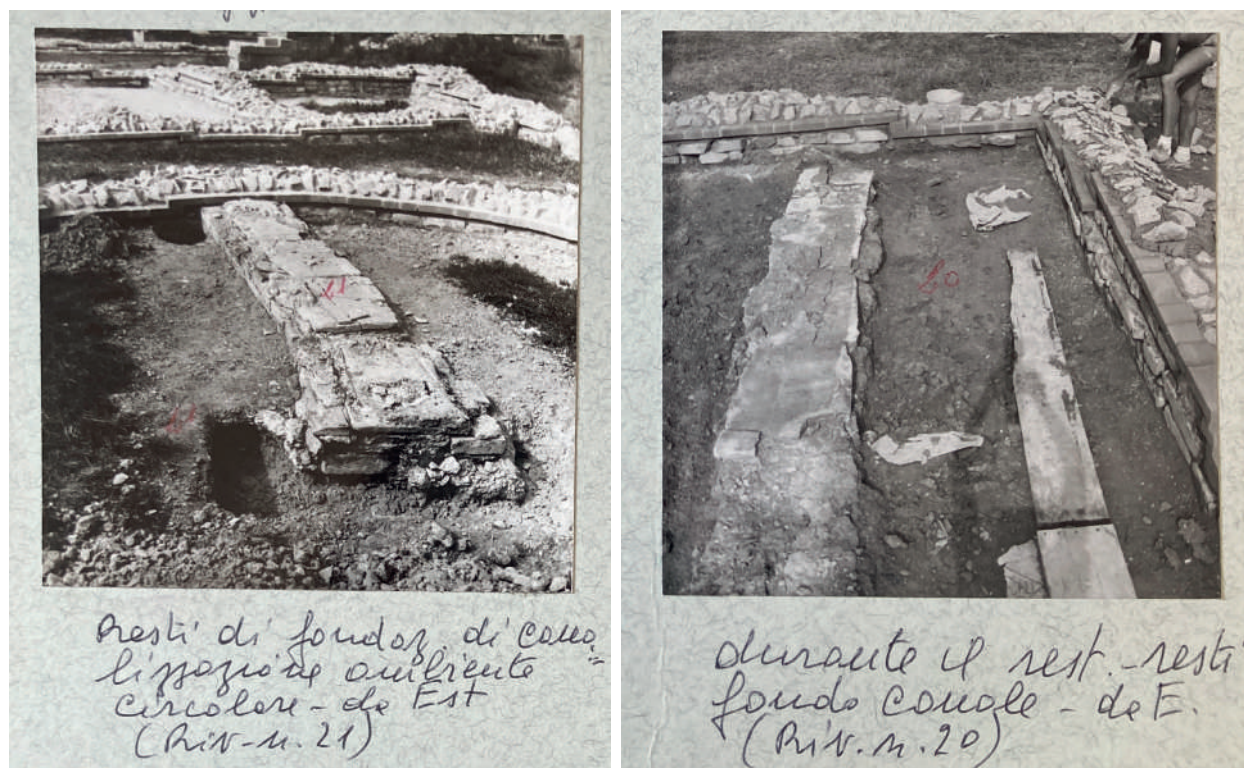


Figure 2. Montegrotto Terme, Viale Stazione/Via Scavi, polylobate building (Veneto region, Italy). A: View of the coverage of a channel in basin A of room 6 (from Bassani 2022: 108, fig. 11A); B: view of the coverage of a channel in room 9 (from Bassani 2022: 109, fig. 12).

clearly recognizable in the photo preceding the heavy restorations carried out here and indicated in the related caption: 'Remains of foundat[ion] of canalization [in the] circular room' ('Resti di fondaz. di canalizzazione ambiente circolare' Figure 2.A). Now the culvert cover looks like a simple wall, but thanks to archival photos, the coverage beneath it is clearly recognizable. Furthermore, two large exedras, i.e., apsidal rooms 7-8 (diam. 7.3m, prof. 3.3m), opened onto this room to the north and south, provided with a rectangular niche at the bottom of each apse, recognizable only from the foundations.

Finally, in the innermost western portion of the building complex and aligned with the vestibule are the three rooms 9-11, all of which open eastward and are accessible from room 6: room 9, larger in size than the other two (5.5x5.4m, 19x19 *pedes*), does not appear to have had side doors to access the two rooms 10-11, which are smaller in size (room 10: 2.1x3m; room 11: 2.2x2.9m) and have apses at the bottom. Although in a 1971 map a wall is indicated inside room 9, it could be the cover of a conduit from the west perimeter of the room, that runs eastward and has the same orientation as the conduit present in pool A of room 6 (Figure 2.B). This would be confirmed by a photo of the archive of the Archaeological Superintendence and by the related caption, which reads: 'during the rest.[oration]

remains [of the] channel bottom' ('Durante il rest. [auro] resti fondo canale'): thus attesting, during the restoration work, the presence of a channel with the same orientation as the one in the basin. It could have been, then, a fountain or water feature clearly visible from the entrance.

Finally, three partition walls were found parallel to the long northern perimeter side, with an east-west direction (see Figure 1, L), possibly pertaining to a corridor. Given the shortage of information, it is impossible to say whether there was a symmetrical one to the south as well, between our building and pool B, or whether it was limited only to that sector of the health resort: we could certainly interpret it as a service compartment, to reach/separate the buildings.

According to the excavation records and as a result of various inspections, it seems clear, despite the heavy changes made during the restoration, that the building technique is *opus latericium*, similar to that used for other buildings: the chronology should therefore be placed in the late 1st-2nd century AD.

Looking at the building from a general point of view, it is evident how it was articulated around basin A in room 6, which should be interpreted as a fountain and not as a bathing pool since there are no steps to access it. It

is also difficult to clarify whether the water main that served basin A had a connection to the water network (G) behind the large healing pools (see Figure 1) and whether it was the same one that served the probable canal in Room 9 as well.

In addition to the Roman cistern M with thermal water indicated during excavations in the 18th century, a careful study of hydrological maps related to Montecarlo Hotel clarified that the latter from the 1960s-1970s used for its therapeutic pools springs present right next to the polylobate building (Bassani 2022). Hypothetically, therefore, it is possible to imagine that the polylobate building drew water from one of these springs, which over the centuries may have been depleted because they were subject to constant and massive use by the hotel facilities. Indeed, one might speculate that the polylobate building was built just above an important spring, monumentalized in the circular basin A.

As for the decorative apparatus and roof system, very little is known. The 1971 plan within entrance room 1 indicated 'remnants of a marble slab floor' within a rectangular box drawn in the room and shown on the plan. It is possible that the rest of the building was also decorated with marble, but everything has been removed, perhaps already in the Medieval age.

Finally, it is most astonishing that, as reiterated in the few documentary notes in the Superintendency Archive, no artifacts were found during the excavation, whereas many fragments of decoration and artifacts were recovered during the excavation of the rest of the archaeological area (in the pools and in the theatre) in the 18th and 20th centuries, as well as during the investigations that led to the discovery of the small theater in 1965. Does this mean that it was totally despoiled as early as ancient or Medieval times because it constituted an irresistible quarry of precious objects and building materials?

This question I cannot answer, while I think one can try to explain the function of this building by comparing it with some known examples in Italy and elsewhere. The building, in its morphology, size and internal organization, recalls examples of *nymphaea* for ceremonial-worshipping use and not structures intended for therapeutic uses such as *balnea*. The connotative elements in this sense are:

- The centrality of water due to the presence of a large central circular pool, into which one could not descend but at most walk around.
- The symmetry of the mixtilinear (and not just polylobate) compartments, arranged in pairs following a precise axiality from the entrance

to the bottom room 9, itself, perhaps, provided with a water pipe.

- The proximity to one of the main thermo-mineral springs in the therapeutic area, later exploited by Montecarlo Hotel until its water vein was exhausted.
- The autonomy of the so-called polylobate structure from the area of the baths and theater, i.e., its separation from the curative circuit.
- The orientation and access of the polylobate building from the east in the direction of one of the Roman roads that served the health resort.

These features mark, in my opinion, a peculiarity of the building compared to other buildings present, but more importantly they are the same as those found in other examples of *nymphaea*, on which it is now worth dwelling.

***Nymphaea* in thermo-mineral contexts: some examples**

To attempt to understand the function of the supposed *nymphaeum* of Via Scavi and its relation to the rest of the curative structures in the archaeological area, I think it is useful to recall, firstly, the known types of *nymphaea* attested in Roman times, and secondly, to analyze some particularly illustrative cases found in thermo-mineral contexts.

From a general point of view, the Roman *nymphaea* consist of a rectangular chamber (subterranean or semi-subterranean: Type I) with spring/fountain and collection basin, sometimes provided with niches and small side recesses (Mingazzini 1955; Neuerburg 1965; Settis 1973; Lavagne 1988; Gros 2011: 252-260). The building type derives from Hellenistic *nymphaea* related to the worship of springs and Nymphs, as widely demonstrated. This rather simple version, which finds several exemplifications throughout the Italic territory, then underwent an evolution in the Flavian-Trajanic period, which corresponded to a rectangular hall with an apse, usually semicircular and with a barrel vault: it was often flanked by mixtilinear/polylobate rooms useful to create a space in which several deities could be worshipped and with whom members of the imperial court could sometimes be associated (Type II). During architectural development, which would later lead to true 'water exhibits', such as the *Septizodium* of the Severans alongside the *Palatium* on the Palatine, the strongly cultic aspect toward the spring and the Nymphs, which these buildings had maintained over time, seems to wane in favor of their predominantly monumental connotation, although in some cases water-related rituals may have continued into later times.

It should be emphasized, however, that the *nymphaea* of types I and II considered in the aforementioned works were often connected to aqueducts or freshwater veins, which served cities and/or private estates. Similar compartments or structures are also present, however, in health resorts, where the water was mineral and indeed played a fundamental role from a sacrate, therapeutic, and therefore also economic point of view: their nature as places to practice devotion was pervasive and enduring, since the religious value recognized to that medicinal water remained constant over time, patronized by Nymphs and/or other deities. Examples of this can be found both in the Italic Peninsula, which has been reported in some previous studies, and in the Provinces.

Simple rectangular chamber or apse *nymphaea* within health resorts

Two *nymphaea* caves pertinent to type I are known in Latium and Umbria, at Ponte di Nona and Cesadoro respectively, both locations characterized by therapeutic mineral waters.

The first case is a context not far from *Praeneste* and close to the Via Prenestina and Tivoli, where the presence of cold springs with a relevant component of dissolved magnesium salts is documented (Potter 1989; Bassani 2014: 165): around them a settlement was organized, equipped with a *mansio*, a shrine and an adjoining enclosure rich in votive offerings including anatomical votive objects, and other structures of uncertain function, with a private building in the imperial age (Figure 3).

Among the structures is a rock-cut *nymphaeum* on the northwestern slope, with two niches and ducts carved into the rock that were reported by Rodolfo Lanciani in the early 20th century: the sacred purpose of the *nymphaeum*-cave could be confirmed by the discovery, inside it, of a fragment of polychrome glass *patera*. It should also be pointed out that although included in a complex settlement area, the *nymphaeum* was separate from the *mansio* with baths and the temple area, as if to mark its topographical and functional autonomy from the other constructions for civil and cult use. Finally, while the date for the shrine goes back as early as the 4th-3rd centuries BC, the *mansio*, the *nymphaeum* and other buildings date from the 1st century BC to the 1st century AD.

Moving to Umbria, another cave *nymphaeum* was discovered in the province of Perugia (Cesadoro-Collazzone, Umbria) in 1734-1735, following diggings carried out in an area of probable sacred nature (Figure 4) (Sensi 2006; Bassani 2014: 177-178). The latter was connected to a cold sulfur water spring that

still gushes out inside the cave, which was about 2 mt high at the time, and then flows into a small stream that joins the Saragano river. Inside the *nymphaeum*, whose dimensions are not known to date, many sacral-type artifacts were found, including a marble statue of a male figure with cornucopia, smaller than life-size (0.9m), another of Hercules of small size as well as a relief with Harpocrates. That sacred ceremonies were practiced in the *nymphaeum*/grotto is attested by the recovery of a rectangular trapeze/altar and a circular pedestal with a hole at the top, which could be identified with a cylindrical altar provided with an upper cavity for officiating at sacrifices. Furthermore, the ritual practices are attested by the finding of a great many other objects, including oil lamps, small containers, a pinecone and many hen and peacock eggs, as well as more than four hundred coins from the age of Domitian to Antoninus Pius. Indeed, even in this case the *nymphaeum* is dated between the 1st-2nd centuries AD, not unlike the mixtilinear building in Montegrotto Terme.

A similar chronology is finally recorded in the Type II *nymphaeum* at the *Aquae Cutiliae*, in the province of Rieti, characterized by cold mineral water flowing from two springs, one sulfidic-carbonate, the other bicarbonate-sulfate-alkaline-earthy (Alvino and Leggio 2006) (Figure 5). Here, on the northern side of the very large pool (60 x 24m) dug into the rocky bank and 1.8m deep, stands the large apsidal chamber *nymphaeum* 2 (7.20 x 6.35m, diam. apse 4m), to which were associated both the two specular rooms B, and the long corridor that led to the court above, reached by staircase H. To the Flavian age is dated a remaking of the upper part of the apse of the *nymphaeum*, which involved the addition of eight water outlets and the related water system behind, to which corresponded the creation of a niche (2.20m) below which a basin was placed. It seems important to note how in this case, as well as at Ponte di Nona, the position of the *nymphaeum* appears rather secluded from the other rooms facing the rectangular courtyard of the pool. Its separation from the bathing circuit visible both on the ground floor and on the upper floor seems intentional and not accidental. It could underline a precise desire to divide the places frequented by bathers where cures and therapies were carried out, from a 'sacred' and cultic place such as the *nymphaeum*.

This separation between bathing circuits and the ceremonial places sacred to the Nymphs is equally well evident in the *Aquae Flaviae nymphaeum* at Chaves (Portugal), the subject of recent investigations (Carneiro and González Soutelo 2019) (Figure 6). It coincides with a monumentalized well-fountain (1x1.35m, prof. 1.7m) placed within a semicircular exedra and provided with a tympanum above the cavity, where there was

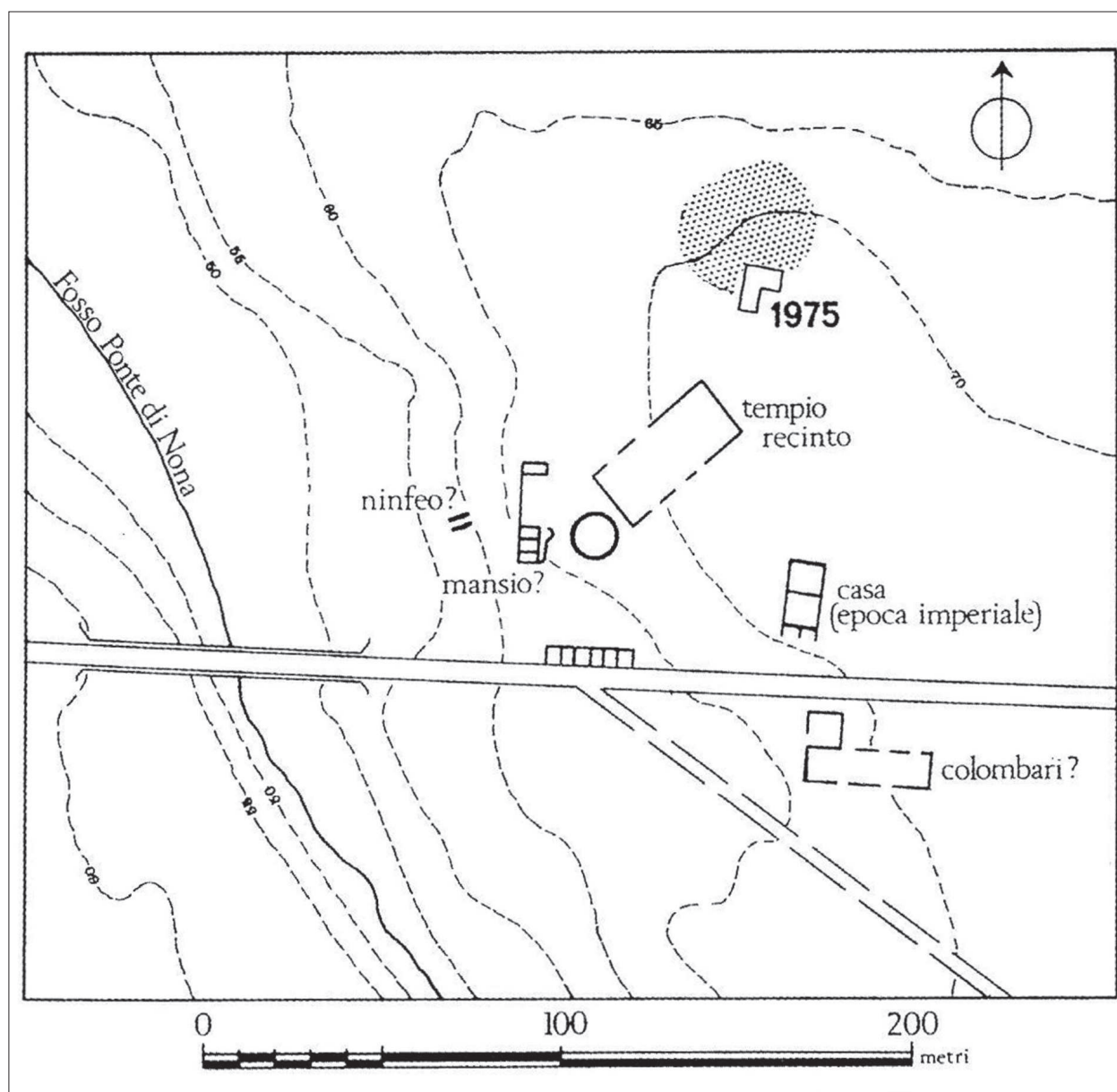


Figure 3. Ponte di Nona, Preneste (Latium region, Italy). Plan of the archaeological area with the *mansio*, the *nymphaeum*, the shrine and other Roman buildings (from Quilici 1974: 92, fig. 80).

spring water collected for sacred-ceremonial uses. The *nymphaeum* was indeed included in the therapeutic station but, as has been appropriately pointed out, it was designed to reproduce an underground cave sacred to the Nymphs, that was not directly accessible except by following a route distinct from that used to reach the two baths and the treatment rooms next to them.

If, therefore, the cases briefly presented here show the presence of *nymphaea* of type I even in mineral areas where, indeed, medicinal spring water was the protagonist of the installations themselves, it may now be useful to consider the two most significant examples of *nymphaea* comparable to that of Montegrotto Terme

(Type II), with which analogies are indeed surprising and, in my opinion, interesting.

Nymphaea as multilinear buildings: the case of the Aquae Apollinares Novae and Baños de Fortuna

The most significant curative context that offers useful comparisons for the supposed Euganean *nymphaeum* is that of the most important Roman spa near Lake Bracciano: the present-day location of Vicarello coincides with the *Vicus Aurelii*, which in ancient times was famous for its numerous springs called *Aquae Apollinares Novae*, mentioned together with the *Aquae Apollinares Veteres* of Stigliano in the *Tabula Peutingeriana*

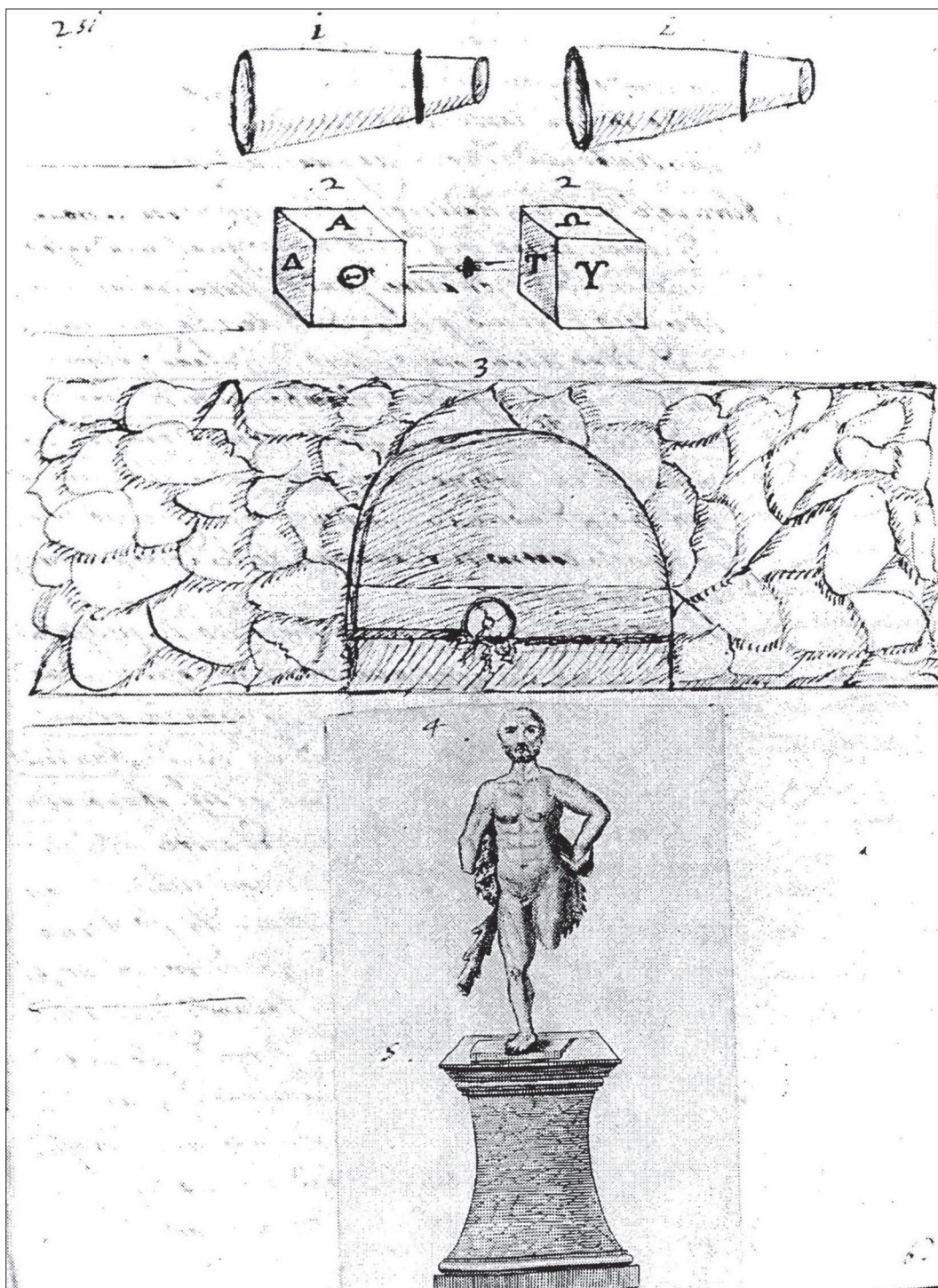


Figure 4. Cesadoro-Collazzone, Perugia (Umbria region, Italy). The archaeological objects found in the grotto/nymphaeum in a drawing of the 18th century (from Sensi 2006: 334, fig. 7).

(Colini 1979; Cordiano 2003; Cordiano 2011; Bassani 2014: 162-163) (Figure 7.A).

A number of springs are known in the area, some with radioactive bicarbonate-sulfate water at 50°-59°C, others oligomineral, slightly alkaline, flowing out at 16°C. Already frequented in prehistoric and

protohistoric times, in Roman times the site presented two main springs in the curative area, to the east and west: the first near the building interpreted as a *nymphaeum*, the other served the thermal core that was used and remodeled between the 18th and 19th centuries, and in which was found the famous *stipe* with thousands of votive offerings.

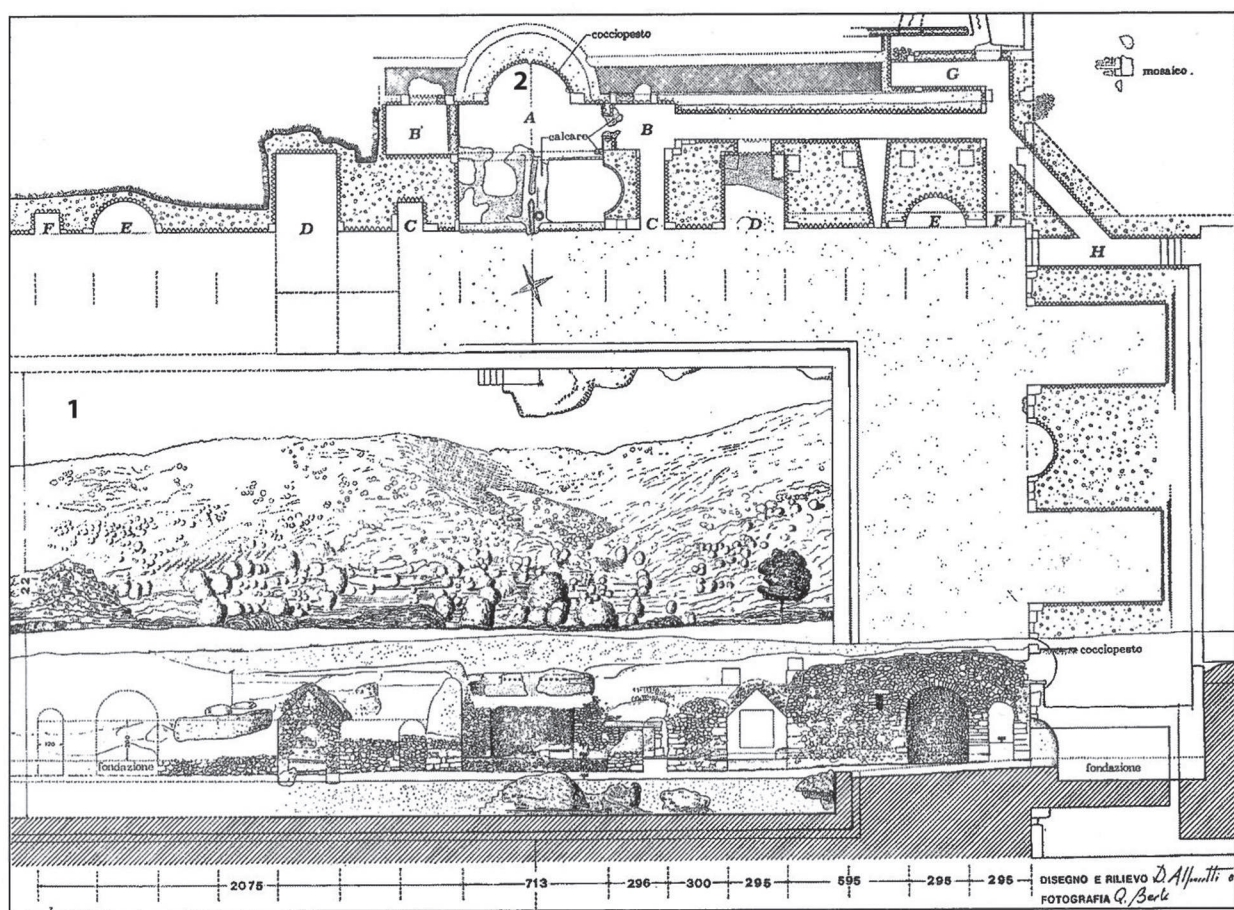


Figure 5. Rieti, *Aquae Cutiliae* (Latium region, Italy). Plan and section of the Roman healing spa with the big pool 1 and the nymphaeum 2 (Terralismo antico 1999: 209, fig. 107).

The strategic importance of this health resort should be noted: connected to the two consular roads Clodia and Cornelia from the Republican age onward, it experienced, after a prehistoric and republican frequentation, an important monumentalization starting from the Flavian age: not only did Domitian build a sumptuous villa near it, but it is likely that the emperor intervened in the very management of the thermo-mineral center since, among the inscriptions recovered, as many as six mention Nymphs, and in one case these are mentioned as *Numphae Domitianeae* (Buonopane and Petracchia 2014; Bassani forthcoming).

Subsequently, the site was frequented without interruption until the 4th century AD but was destroyed by the Saracens in the early Medieval period and was soon covered in vegetation. However, the springs continued to be known and used during the Renaissance, so much so that in 1532 a hospice for the sick was erected on behalf of the Hungarian-Germanic College. Between the 18th and 19th centuries, the area was affected by new construction work for a therapeutic plant, which altered part of the ancient remains but also allowed the discovery of some of the buildings from the

Roman period. New excavations were made in the 1970s on behalf of the Archaeological Superintendence, but today the area, included in the Bracciano Nature Park, can be visited partially and is in a state of abandon. The cures still practiced in the area between Vicarello and Stigliano are prescribed for breathing ailments, arthritis and rheumatism, including mud treatments.

The northeastern complex (see Figure 7.A) included a cistern 4, two vaulted compartments 5-6 and a building developed axially to the northwest/southeast: this is a big building of large dimensions (c. 40x20m) and with an articulation that seems rather similar to that of the Via Scavi building in Montegrotto Terme and can therefore be ascribed to Type II of the classification of this type of building structures. In room 7 the entrance (c. 16x12m) is recognizable, provided with rectangular exedras (c. 1x0.5m) preserved only on the northern side, perhaps also on the southern side. From here one could enter the interior. The route allowed to reach room 14, the real focus of the building, by crossing two pairs of long rectangular rooms 8-9 and 12-13, similarly the Euganean area, closed to the back by rectangular exedras: from them one could then enter the main



Figure 6. Chaves, *Aquae Flaviae* (Portugal). Photo of the *nymphaeum* in the Roman healing spa (from Carneiro and González Soutelo 2019: 72, fig. 2).

room 14. Furthermore, from entrance 7 two adjoining and specular rooms 10-11 were quadrangular and led to the large mixtilinear hall 14 (9.45x9.2m). The latter was covered by a pavilion vault, and in the center was a rounded cross-shaped fountain, at the sides two rather large apses (c. 6m diam.: Figure 7.B). Finally, at the bottom of the building was a rectangular room 15 introduced by an arch/window, beyond which was a large, deep *nymphaeum* with two brick basins (4.5x1.5m) at the bottom and a marble ladder for water features at the upper level. The ladder was surmounted by the Pentelic marble statue of Apollo (preserved height 1.21m; total height c. 2.10/2.20m), which, constantly washed by the thermo-mineral waters, has reached us in a rather corroded state, and already restored in ancient times. The last rooms served as hallways (16) and service rooms to reach one of the two treatment areas.

During the excavations, marble slab coverings were found for both walls and floors, forming, at least in room 14, geometric floral motifs worked in *opus sectile*; for the walls of the *nymphaeum*, however, mosaic tiles with blue and gold glass paste encrusted with shells and

stuccoes were used to recreate the shimmering typical of caves inside springs.

At Vicarello, water was present both in the pool of the central hall 14 and in the *nymphaeum* 15 dominated by the cult statue of Apollo, just as in the supposed *nymphaeum* of Montegrotto, water was probably emphasized both in the large circular pool A of hall 6 and in room 9, should the hypothesis advanced above be correct. In both cases, therefore, the architecture of these building types features as common traits not only the articulation of the complex in alternating rectangular, apsidal and mixtilinear rooms, but also the centrality of spring water (which was under the patronage of Apollo in Vicarello), named in 7 inscriptions, and of the Nymphs. However, we know from recovered materials that other deities were also worshipped here, including Asclepius, Silvanus, Priapus and Pan.

The *nymphaeum* was located at one of the two springs of the health resort, since at the second, which was probably one of the main, the actual health resort sector arose, positioned to the west beyond the stream

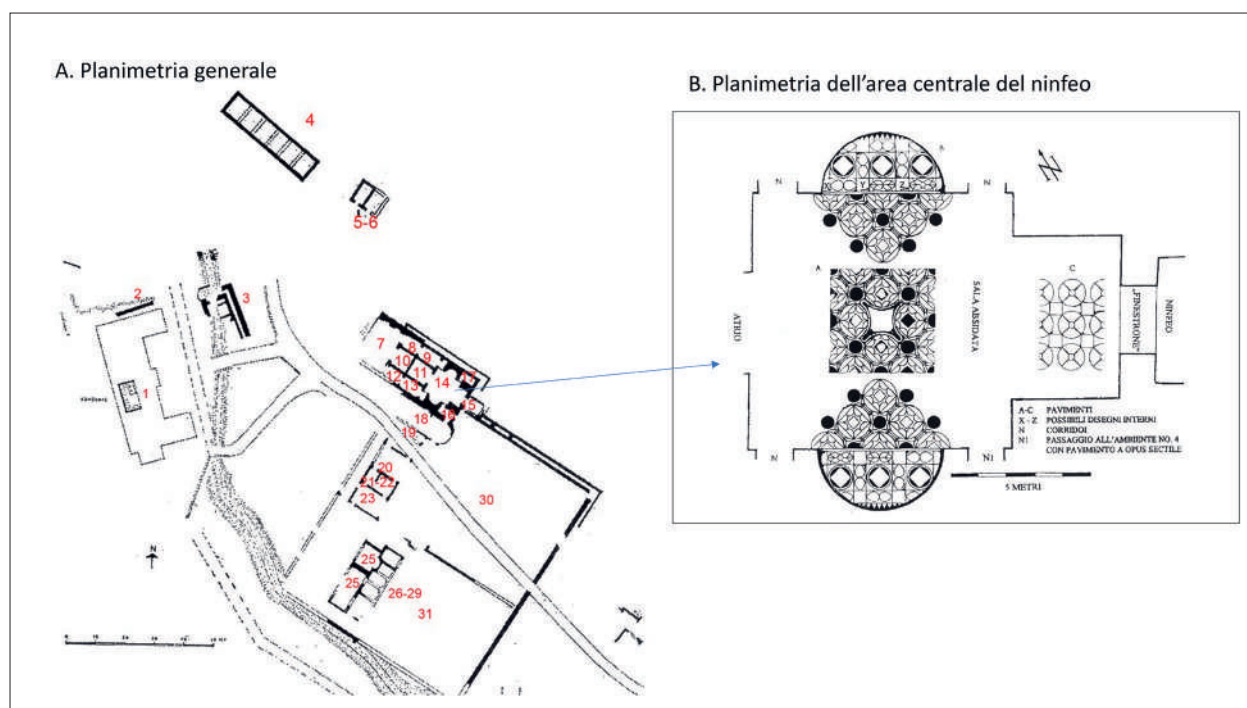


Figure 7. Vicarello-Bracciano, *Aquae Apollinares Novae* (Latium region, Italy). A: Plan of the Roman healing spa; B: plan of the central part of the *nymphaeum* 14 (from Bassani 2022: 115, fig. 16).

(see Figure 7.A, no. 1), where the 18th-19th century establishment later rose. Thus, the *nymphaeum* was close to one of the main springs and to what must have been another sector connected to the cycle of cures and rest provided in this therapeutic station: it is the core extending towards the south-east, which was about 90x75m wide enclosed by a fence. In addition, there were two large, uncovered areas within it used as gardens and/or gymnasia (but remember that we have no definite evidence of gymnastic practices within gymnasia at healing stations, not least on account of the fatigue involved in thermo-mineral therapies).

To conclude this paragraph, it is important to mention a second case of sacred space corresponding to the Type II of *nymphaea*, that was served by thermal water. I am referring to the sacred complex of Baños de Fortuna in the Murcia region, Spain, that shows similarities both with the polylobate building in Montegrotto Terme and Vicarello (Matilla Séiquer 2006; Matilla Séiquer 2017) (Figure 8). The structure was strictly connected to another sacred thermal place named the Cueva Negra and in the 1st century AD they were used as shrines. In particular, Baños de Fortuna corresponds to a quadrangular structure with some rooms in the entrance area, that were exploited for thermal purposes only in the late phase, because at the beginning they did not present water pipes. Moving inside, the central space was occupied by a rectangular basin with a few

steps into which mineral water flowed, coming from the bottom of the building, excavated on that side in the rock: here a semicircular *nymphaeum* flanked by two minor rectangular rooms occupied the main visual axis. Some altars re-used in the modern age building testify the votive activity to the deities worshipped here in relation to the mineral waters.

The building has been interpreted as a shrine as well as a spa for the presence of the pool, accessible by some steps; but in my opinion aspects of worship must have outweighed therapeutic ones: it is hard to imagine that in the structure there could have been at the same time sick people immersing themselves in the rectangular pool and pilgrims and worshippers paying devotion to the spring water, that gushed out at the bottom in the *nymphaeum*. Then, the rectangular pool could be reserved for ceremonial activities and not for curing purposes. In fact, as numerous examples in the Roman Empire show (Bassani, Fusco and Bolder-Boos 2019, *passim*, with bibliography), healing waters in their monumentalized sacred spaces were not meant to be contaminated by the promiscuity of secular use for cures: in the thermal-mineral contexts the healing treatments were assured in specific buildings with pools and rooms, while shrines and sacred springs often monumentalized thanks to basins and *nymphaea* were separated from the profane cures and were worshipped by pilgrims with *ex-votos* and prayers.



Figure 8. Baños de Fortuna (Murcia region, Spain). Zenith photo of the thermal shrine/bathing with the semicircular *nymphaeum* (from Matilla Séiquer 2017: 146, fig. 16).

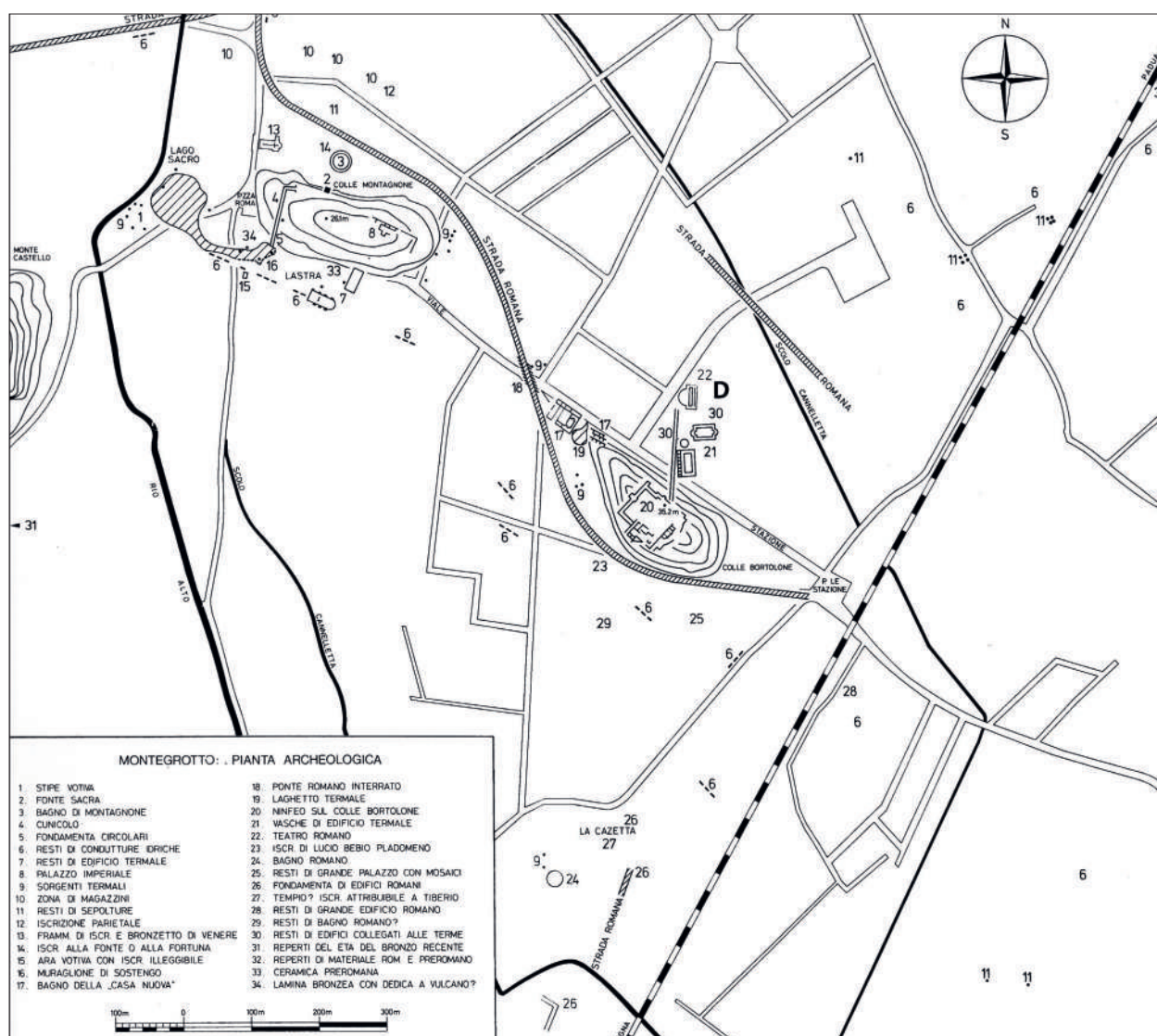


Figure 9. Montegrotto Terme (Veneto region, Italy). Topographical map with all the archaeological remains: the polylobate building is indicated with the letter D within the healing spa of Via Scavi (pools at no. 30 and 21, small theatre at no. 22). It seems to be oriented towards the Roman road found near the area (from Lazzaro 1981: 159, fig. 5).

Food for thought

i would like to conclude this article by pointing out how the comparative analysis between the supposed *nymphaeum* of Via Scavi and the other cases of *nymphaea* examined has allowed to find common and recurring elements on which it is worth focusing our attention.

Indeed, if we consider the Via Scavi building at Montegrotto Terme and the *nymphaeum* at Vicarello, the similarities of the internal articulation of the two buildings are really striking: both provided for multilinear halls accessible symmetrically from one side and from the other with respect to the central hall, provided with a fountain, and both at Montegrotto and at Vicarello the presence of service compartments is documented, to separate or join the *nymphaea*

from other sectors of the health resorts. Moreover, the presence of a central pool in the main hall and the existence of an almost processional pathway that passes alongside it in the direction of the inner rooms (which in Vicarello coincide with the actual *nymphaeum* of Apollo) emphasize in both cases the ceremonial experience, prevalent over the bathing one, which indeed seems to be lacking here altogether. In fact, in all the *nymphaea* examined, both Type I and Type II, the water always came from the springs and it seems to be the real protagonist of the different installations, whether small, medium or large: in the contexts considered, the monumentalizing of the springs involved the creation of a room equipped with a fountain/well or real buildings in their own right, with pools and waterfalls in which no curative use was envisaged. Indeed, compared to bathing pools, the

nymphaea always seem to be clearly separated: this, in my opinion and according to many scholars,³ was to avoid a promiscuity between pure water and water contaminated by human use. The water in the *nymphaea* was in fact dedicated to the deities who patronized it, while the water used in pools and therapeutic facilities was in any case 'profaned' by its use for the sick. In this sense, Pliny the Younger's famous letter dedicated to the description of the springs of the Clitumnus appears very significant (Plin. *epist.* 8, 8, 2-6; Bassani 2012: 405-406): there the writer specifies that the part destined for the god and other deities was clearly separated by a bridge from that used by men, precisely because in the former the water was uncontaminated, while in the latter it was profaned by use, even if just bathing.

This consideration allows us to underline a further fact, namely that perhaps the separation between the *balnea* facilities and the halls/buildings used for *nymphaea* could also be ascribed to managerial needs: thermo-mineral resorts were visited not only by sick people, but also by pilgrims and travelers, who could pay homage to the deities of the miraculous springs without necessarily carrying out therapy. So, it might have been preferable to provide differentiated routes within the healing complexes, allowing people to reach the sacred springs without mixing with those who had diseases, often highly contagious such as those of a dermatological nature.

In this sense it is worth pointing out that the supposed *nymphaeum* of Montegrotto Terme was oriented eastwards and thus was close to the road of which several sections were discovered in the 20th century near the railway station: in turn it must have been a detour from the major road that from *Patavium* reached the *Aquae Patavinae* and from there continued southward, probably connecting to Via Annia and other consular roads leading to Rome (Figure 9). This could mean that at Montegrotto a traveler could reach the places of worship by following an independent route and deviating from the main road. By offering such an option, those who operated the facility could still obtain an economic return even from a simple pilgrim: if one was not willing to spend money to stop at the healing settlements for several days, one could in any case purchase an *ex voto* from dealers near the *nymphaeum* and other shrines, such as the *emporium* that existed in the present location of Montirone, near Abano Terme, where vases and *rhyta* were sold (Lavizzari Pedrazzini 1995).

Thus, we can perhaps state that only the continuation of the investigation will allow to confirm or refute the hypothesis advanced here regarding the recognition

of the so-called polylobate building of Montegrotto Terme as a *nymphaeum*. Certainly, an analysis on *nymphaea* and places of worship at the thermo-mineral springs intended as destinations of both curative and votive pilgrimage may offer new data for studies on thermalism in Roman times. Observing the structural and material evidence in ancient healing centers with a dynamic perspective, as might have been that of travelers and pilgrims, will perhaps allow us to grasp significant and peculiar aspects of the *aquae* and their customers.

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³ Among which see Abed Ben Kheder *et al.* 2011.

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