

# THE HISTORY OF THE BATHS OF THE BAY OF NAPLES AND BUDAPEST FOR A POSSIBLE COMPARISON OF SAFEGUARDING AND VALORIZATION

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## 1. Introduction

Thermalism constitutes a strong element of identity as it is closely linked to the territory. Even more so in places where this occurs and where this practice is ancient, dating back, as in the case of Budapest and the Bay of Naples, to Roman times, with an alternating history and events. Thermalism has, in Hungary, a tradition more than a thousand years old, marked by three different epochs that have left significant evidence in the architectural landscape of some urban centres, first and foremost the capital. The latter was founded by the Romans on the eastern limes of the empire along the banks of the Danube, as a castrum with the name Aquincum at the point where the ford of the Danube was easiest and where there were considerable water reserves, including thermal baths (Fig. 1-2). In particular, Figure 1 shows in the Peutingerian table the location of the Roman camp, today's Obuda, highlighted with a symbol accompanied by the inscription 'Aquincó', which characterised the area for the presence of thermal waters even then. In medieval and modern times, Budapest was called Ofen in the Saxon language. The most modern baths date back to the period of Turkish rule, between 1541 and 1686, but the Hungarian capital only gained fame as a baths town around 1920, when it began to utilise the economic potential of this important resource. Even today, Budapest is considered a 'hydromineral' city with thermal springs scattered throughout many of its districts and is the European city with the largest number of health and wellness centres. Hungary is known as one of the countries richest in thermal waters and its resorts are known all over the world.

In Italy, the official definition of thermalism is still the one given by a Royal Decree of 28 September 1919, according to which under this name is to be understood the activity carried out in establishments (terme) where, according to the special therapeutic or hygienic properties recognised to them, mineral waters are administered, hot muds both natural and artificially prepared, silts, moulds and the like are used, and the presence of caves in particular conditions of temperature and humidity are utilised. The thermal baths, born in Roman



Fig. 1. Extract from the Tabula Peutingeriana, an itinerary map of the Roman Empire drawn up in the 1st century B.C. and updated up to the 4th century AD in which the location of Budapest is highlighted with a city symbol and the inscription Aquino.

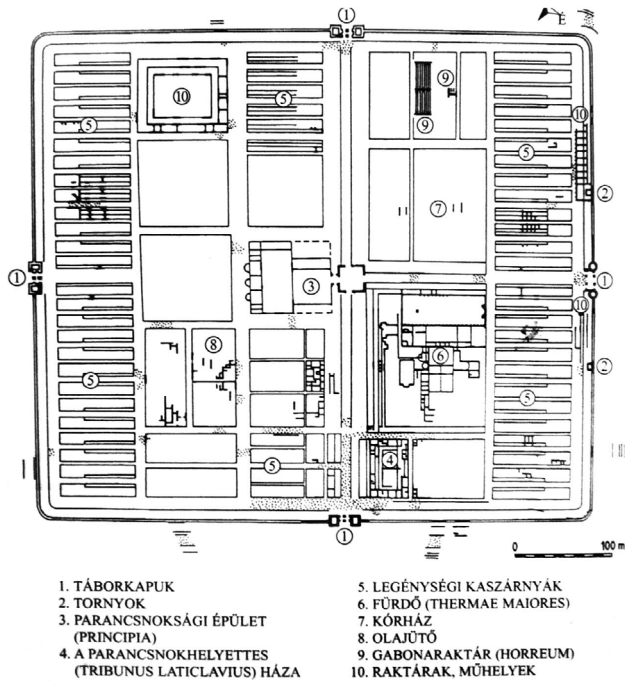


Fig. 2. Plan of the Roman camp of Aquincum with the major baths highlighted with No. 6.

times and rediscovered between the 14<sup>th</sup> and 15<sup>th</sup> centuries, were exclusive destinations of the aristocratic elite until, during the 19<sup>th</sup> century, scientific-technological progress and changing social needs, typical of the industrial era, led to the definition of new architectural types and new receptive bodies, which made the thermal baths the preferred destinations of the bourgeoisie. In the first half of the 20<sup>th</sup> century, wellness tourism established itself as a true mass phenomenon and the renewed interest in physical cures also stimulated state investment in the sector. The following paper, the start of a research project, investigates the historical places of spa tourism and the processes of transformation of landscapes resulting from the recovery and enhancement of the historical and cultural identity of the tourist-care facilities linked to the presence of spas. This comparison is proposed to stimulate an in-depth study of the experiences of these two European countries, which have shared this phenomenon since their birth, both in the character of the settlements and in the relationship between landscape and environment.

## 2. The Bay of Naples area

The Bay of Naples (Fig. 3), comprising the gulfs of Naples and Pozzuoli, is situated between Cape Miseno, to the north-west, Punta Campanella, to the south-east, which forms the extreme edge of the Sorrento peninsula. From a thermal point of view, three areas can be identified: the Campi Flegrei, which also includes the island area of Ischia, the more purely urban area of Naples and the south-eastern area of Stabia.



Fig. 3. Bay of Naples with the places of greatest presence of thermal waters highlighted (elaboration by A. Bertini on a 1950 Ciavatti cartographic base).

The Flegrea<sup>1</sup> or north-western area is made up of the thermal springs of the Stufe di Nerone near Lake Lucrino, the baths of Baia, the baths of Agnano, the baths of Bagnoli and the thermal complexes of the island of Ischia, which can be considered a single large area with hundreds of springs. In the urban or central area of Naples (Fig. 4), most of the springs and thermal waters, important in the city's history, are now largely disused, but evidence remains of the presence of the thermal springs of Carminiello ai Mannesi, the thermal baths

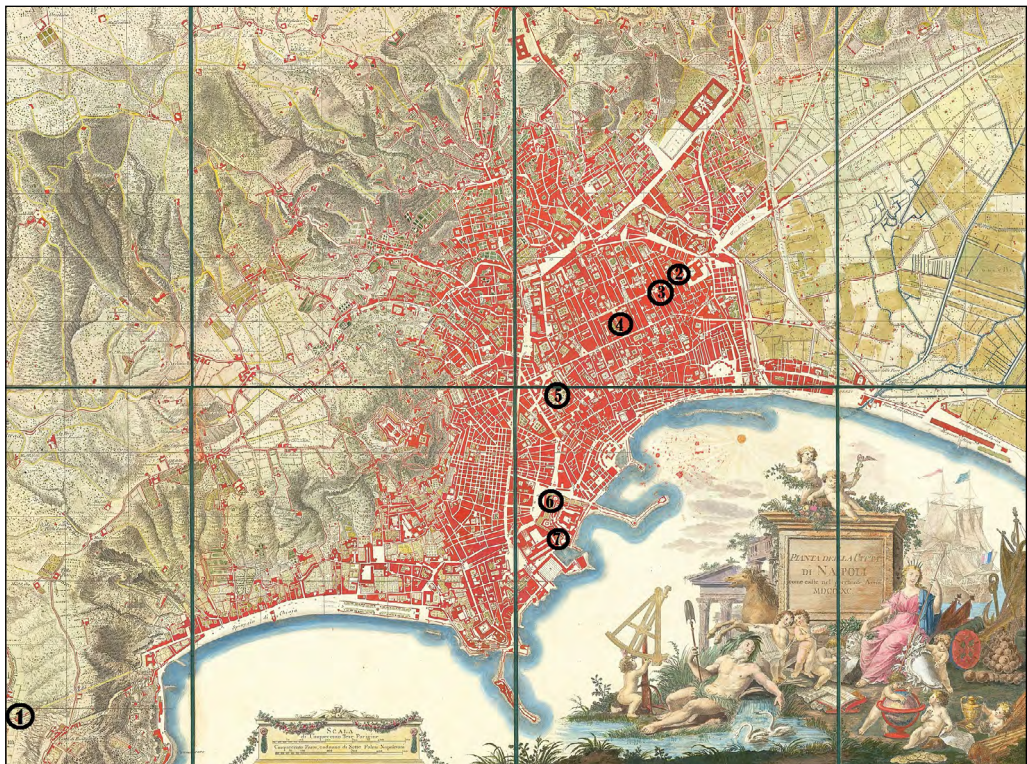


Fig. 4. Extract from the map of Naples and its surroundings drawn up by Rizzi Zannoni in 1793, with the location of the baths mentioned in the text. Legend: 1, the 'statio-termale' of via Terracina; 2, Baths under the Ricca palace (current seat of the Historical Archives of the Banco di Napoli); 3, Carminiello ai Mannesi; 4, Bagno Nostriano; 5, Roman baths of the monastery of Santa Chiara; 6, Baths of the palace of the Prince del Balzo (private baths); 7, Ferruginous waters of via Acton.

The 'regio thermensis' was also identified with the ellipse (elaboration by A. Bertini).

<sup>1</sup> For the morphological reconstruction of the Phlegraean area, we recommend: *La fascia costiera campana da Cuma alla piana, del Fiume Sarno: dinamiche paleo-ambientali e porti antichi*, Thesis, University of Pisa, 2010-2011, candidate Stefano Marinelli, Supervisor Prof. Nella Maria Pasquinucci.

of Santa Chiara, and the thermal baths of the Casa del Balzo near Castel Nuovo, of the ferruginous waters in Via Acton, of the baths open to the public and probably a *statio* along the route that connected Neapolis with Puteoli in Roman times along Via Terracina, of the baths of the *insula episcopalis* and the end of Via dei Tribunali under Palazzo Ricca, seat of the Banco di Napoli Historical Archives.

The south-eastern area of Stabia includes the thermal baths of Torre Annunziata, Pompei, the very extensive and now abandoned thermal baths of Castellammare di Stabia and the very famous thermal establishment called ‘Scraio’ in the municipality of Vico Equense. These just mentioned are the existing structures on the mainland, while the volcanic, bradyseismic and hydrothermal phenomenon is also present in the area in front of the mainland in the two contiguous gulfs of Naples and Pozzuoli. Between 2015 and 2016, a team of researchers at a distance of about 5 km from the port of Naples identified a ‘dome’ (bulge) on the seabed with associated gaseous emissions. A similar phenomenology to that found in the Gulf of Naples also characterises the activity of the Flegrea area in the Gulf of Pozzuoli<sup>2</sup>.

### 2.1 *Brief history of the baths in the Bay of Naples*

The Hellenian merchants, refugees and migrants from the island of Euboea who settled on the island of Ischia (Pithekoussa) as early as the 8<sup>th</sup> century B.C., then founded Kyme (the Roman Cumae) and after about fifty years Parthenope and then at the end of the 6<sup>th</sup> century B.C., Neapolis, they proved to be well acquainted with the thermal riches of the Phlegraean area, including the very rich Agnano ones, also because they came from an island, Euboea called Negroponte by the Venetians (from 1204 until 1490 when the Ottomans returned), which has thermal and sulphurous water phenomena similar to those on Ischia. With the settlement of the Romans in the area in the 3<sup>rd</sup> century B.C., there was widespread thermal activity throughout the Phlegraean Fields, which began in the Republican period (509

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<sup>2</sup> The researchers who carried out the surveys are from the Institute for Coastal Marine Environment and Geosciences and Georisources of the National Research Council (Iamc and Igg of the CNR), the National Institute of Geophysics and Volcanology (Ingv) and the ‘Department of Earth Sciences’ of the University of Florence. The scientific campaign conducted, called ‘Safe 2014’ (Seafloor Acoustic Detection of Fluid Emissions), has detected manifestations that may, in some cases, precede the formation of submarine volcanoes or hydrothermal explosions’, at a depth varying between 100 and 170 metres. The height of the ‘dome’ is about 15 metres and covers an area of 25 km<sup>2</sup>. During the surveys, 35 active gaseous emissions and more than 650 small craters were discovered. The results of the study were published in ‘Scientific Reports-Nature’.

B.C. to 27 B.C.) and lasted throughout the Imperial period (27 B.C. to 476 A.D.)<sup>3</sup>. The oldest written source on the baths in the Bay of Naples is that of Titus Livius, who in 'Ab urbe condita' mentions 'the "Aquaе Humanae" when consul Gnaeus Cornelius Scipio Ispallo went there in 178 B.C.. About a hundred years later, the architect Marcus Vitruvius Polonius also described the *Campi τερμοσ*, Phlegraean as 'fiery lands rich in springs'. In the 1st century A.D., it was Plinio il Vecchio in the 'Naturalis Historia' who highlighted the quantity and quality of the thermal waters in the Phlegraean area. Although in the Republican age, the Phlegraean baths were known and discreetly frequented, it was in the Imperial age that imposing thermal complexes were built, which took on the name of *terme* (from the Greek adjective 'hot'), replacing the term *balnea*, i.e. public baths, and distinguishing it from the private bath, i.e. what the Romans called *balneum*. The Baths of Baia (Fig. 5) were the favourite destination of many emperors, first and foremost Augustus and later Caligula, Claudius, Nero and Hadrian. Horace, in the 'Epistulae', describes the baths of Baia by saying that they were located on the slope of the hill surrounded by myrtle bushes, an autochthonous plant presence still visible today, and with the rooms carved out of the tuffaceous rock. Ovidio, in the '*Ars amatoria*', emphasised that the baths of Baia were a place of healing and amorous perdition at the same time, and listed several famous baths of the time. By this time, the entire coastal and hilly area between Cape Misenum and Baia, between Lucrinus and Puteolis (Fig. 6) up to Neapolis had become a celebrated and praised place of 'delicate' and 'otia' and everywhere patrician villas, sumptuous imperial villas and large thermal centres known throughout the Roman world had sprung up (Table 1).

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<sup>3</sup> The first volcano to erupt in the last 10,000 years of volcanic activity was Agnano (10,000 years ago), followed by Montagna Spaccata, and then the craters of Pisani, Fondi di Baia (10,000 years ago) Solfatara (between 5,000 and 4,000 years ago), Astroni, Cigliano (4,000 years ago), Averno and finally, in 1538, Monte Nuovo. (DI FRAIA 2013, 2).

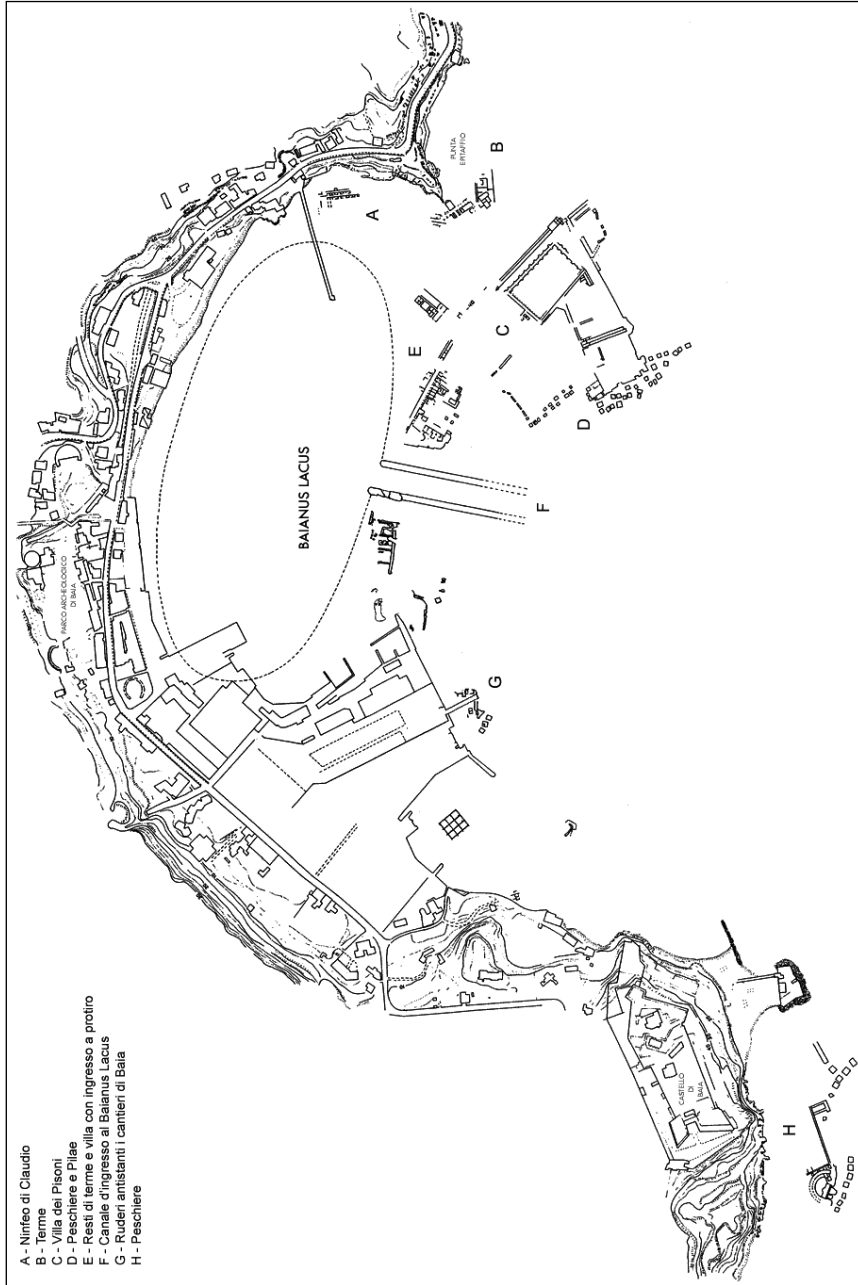


Fig. 5. Reconstructive drawing of the baths of Baia. A large part of the grandiose bath complex of Baia is still visible today, in a specially prepared archaeological park. Another part of the area was submerged by sea water following bradyseismic movements typical of the area. For these submerged archaeological remains, too, the Italian state has set up an archaeological park in which it is possible to go on guided tours in transparent hulled boats and admire the submerged remains of the most famous Roman baths of the imperial era (Jean Claude Golvin, [www.archeoflegrei.it](http://www.archeoflegrei.it), accessed 28 February 2023).



Fig. 6. Aquarelle drawing of the Gulf of Pozzuoli, taken from *Balneis Puteolanis* by Pietro da Eboli.

Table 1. Some of the historical baths in the Campi Flegrei area (elaboration by A. Bertini).

Thermal Baths	Notes
Agnano	
Bagnoli	
Masullo	
Tricarico	
Cotroneo	
Rocco	
Manganella	ex Bagno Giuncara
<i>Between the Dazio and La Pietra railway stations</i>	
Balneolo	
Di Leo	mineral spas
Antiche terme Calatura	



Vitolo	
<i>Pozzuoli</i>	
Terracciano	
Puteolane	
La Salute	
Pisano-Verdino	
Bagno Fortuna	Present since 1891, the oldest

In addition, so many thermal complexes were built that the area between Via Diaz and the Stock Exchange Palace was classified as regio Thermensis. Along the route between Naples and Pozzuoli, in Via Terracina in Fuorigrotta, a bath complex, consisting of several rooms and decorated with black and white floor mosaics, was built at the beginning of the 2<sup>nd</sup> century near a *statio*. The bath area in Via Terracina was still active in the 5<sup>th</sup> century A.D. The southern side of the *statio* Gulf of Naples is also affected by the presence of thermal springs, especially in the territory of Castellammare di Stabia, a centre that arose in 340 B.C. in the very area where the thermal waters are located. But even in the centre of the bay where Naples stands, there are considerable traces of thermal waters and springs that have been forgotten and destroyed over time. First, there is the area of Bagnoli, also known since antiquity, where there are abundant thermal springs that are little used today, and in the city of Naples itself there are traces of hydrothermal springs. To set up industrial activities such as Italsider and Cementir, most of the springs in the Bagnoli area were cemented over. After Roman times, there are records of thermal baths in Naples around the year 1000 as meeting places. “Around the balneum ran colonnades, exedras, porticoes and gardens, such as those surrounding the Nostrian bath, the oldest in the city, located in the regio Augustale, near the forum.” In 1076 there is news of a balneum vetus destructum at the via Capuana, while another balneum veterem is mentioned in 1164<sup>4</sup>, near the disappeared via dei Ferri Vecchi. There was also a thermal bath inside the Caputo city gate, built in the early 12<sup>th</sup> century. Another was at Monterone and included ‘ipso spoliatorio et tepidarium et fornace et cum puteo aque vive’<sup>5</sup>. The area of Patrizzano, where the so-called ‘Zizze’ fountain still stands today, was very rich in springs, but we do not know if they were thermal springs, while the spring at the monastery of San Pietro Martire was famous in the Angevin period (Fig. 7).

<sup>4</sup> CAPASSO 1891-1893.

<sup>5</sup> CAPASSO 1881-1892, II, 102.

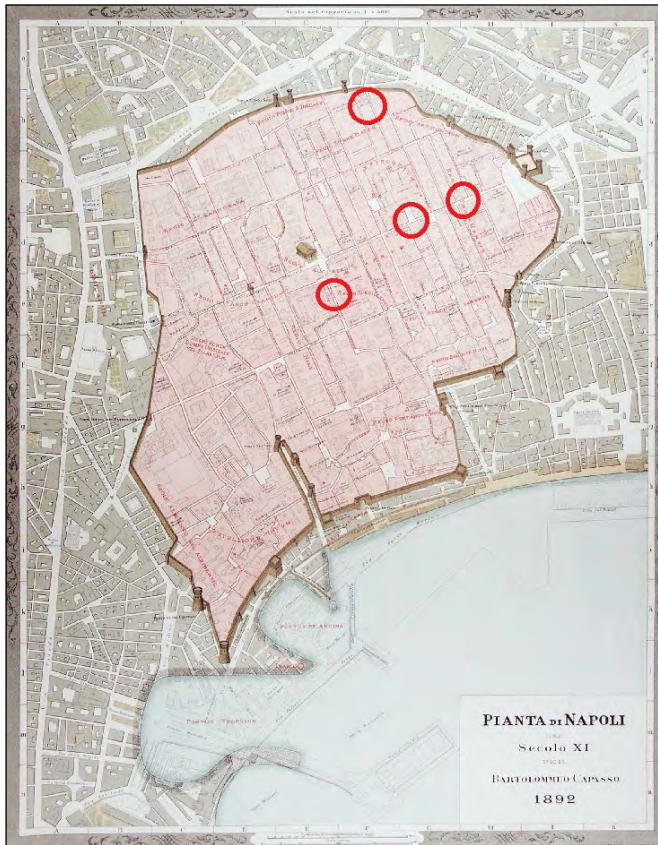


Fig. 7. Plan of 11<sup>th</sup> century Naples inspired by Bartolomeo Capasso's studies in 1892. In the northeastern part of the map near the Castel Capuano and at the end of Via dei Tribunali in the Forcella area was the "Regio Ihermensis". At that time, the city was divided into Regio, neighbourhoods with different place names than today. In the map, the hydrothermal springs of which we have traces are highlighted with a red circle (elaboration by A. Bertini).

Flavius Magnus Aurelius Cassiodorus, a Latin senator, politician and man of letters who lived around the 6<sup>th</sup> century, wrote that the Atalarico, King of Goths went to Baia to be cured by the thermal waters. While Pope Gregory the Great in his memoirs recalls that doctors advised Germano, bishop of Capua in the 6<sup>th</sup> century, to go to the sudatorium of Agnano, which later took the name Sudatorium di San Germano. The Jewish doctor Beanimo di Tudela, who came to Italy from Spain in 1164, also described Puteoli's thermal waters in his book "I viaggi di Beanimo di Tudela". The court poet Pietro Ansolino or Ansolini da Eboli wrote his "De Balneis Puteolanis" (also called "De Balneis Terrae Laboris") between

1212 and 1220, dedicating it to the Emperor, and reports that Frederick II of Swabia visited Baia between October and November 1227. Only copies of the work translated into the vernacular have survived. Of these, the oldest is codex 1474 in the Angelica Library in Rome, dated between 1260 and 1270 (Figg. 8-9-10). Among the baths mentioned in ‘De Balneis Puteolanis’ are the Sudatorium di San Germano, the Balneum Astruni, the Balneum de Fatis, the Balneum Plage, the Balneum Petrae, the Balneum Calaturae, and the Balneum Silvanae, the latter being the current ‘Terme Stufe di Nerone’).

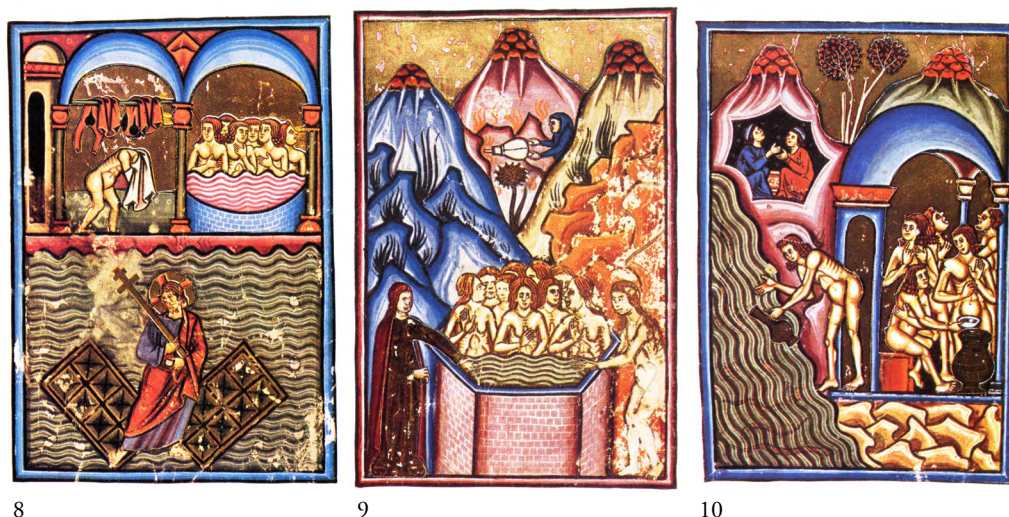


Fig. 8, 9 and 10. Miniatures from the Codex Angelicus Ms. 1474 (Angelica Library in Rome), The “De Balneis Puteolanis” or “De Balneis Terrae Laboris” or “De Euboicis aquis” is attributable to Pietro Ansovini da Eboli or Alcadino di Siracusa, written in the last decade of the 12<sup>th</sup> century. From left to right the Tripergole baths, the Solfataras Baths and the Agnano baths or ‘Sudatorium’.

During the Angevin domination, the Phlegraean baths received a further boost. The village of Tripergole, located near Lake Avernus, saw the development of numerous health and accommodation facilities, managed by Neapolitan and Puteolan religious orders<sup>6</sup>. There was also a pharmacy and three taverns, which certainly also functioned as inns. King

<sup>6</sup> In Angevin times, the Puteolan thermal pole was concentrated near Tripergole and was famous for its thermal baths, as well as for the hospital and church of S. Marta built by Charles II of Anjou in 1298, a village cancelled by the eruption of Monte Nuovo at the end of September 1538. Here, the rulers had a castle in which to stay. In Aragonese times, it also became King Ferrante’s place of recreation (DI FRAIA 2013, 11).

Robert of Anjou, known as the Wise, in 1332 obliged the men of the hamlets of Posillipo, Fuorigrotta and Pozzuoli to repave the road from Piedigrotta to Tripergole to encourage thermal tourism. From the 16<sup>th</sup> century onwards, Phlegraean thermalism was also supported by several religious orders. Among these was the Gerolomini of Naples, who in 1625 built their hospice in Pozzuoli for the poor in need of thermal treatment. In the following years, the Hierolomini acquired land at the Terme Subveni Homini (today's Terme Puteolane) where springs had been found and built a spa for their lay guests. Pedro Antonio de Aragon, entrusted the Irpinian doctor Sebastiano Bartolo, head professor of anatomy and philosophy at the Naples Gymnasium, with the task of researching and restoring the ancient hot springs. The doctor indicated more than 40 springs in his books, 'Breve Ragguaglio de 'bagni di Pozzuolo' written in 1667 and 'Thermologia Aragonia' published after his death. For his research, he used the 'Trattato dei bagni di Pozzuolo' published in 1526 as an appendix to the second edition of the 'Cronaca di Partenope'. Sebastiano Bartolo identified three geographical areas, each corresponding to a section of the route from Naples to Miseno. In 1668, by order of the viceroy, three epitaphs in Latin (each contained in a shrine) were placed along this route to inform travellers on their way to Pozzuoli of the therapeutic virtues of the springs along the way. The first aedicule was placed in the archaeological park behind the church of Santa Maria a Piedigrotta where Virgil's tomb was supposed to be. Among the baths mentioned are the Bagno secco or Sudatorio di San Germano (whose waters were suitable for the treatment of skin diseases), the Bagno degli Astroni, the Bagno di Fuori Grotta (located near the Coroglio beach, outside the Seiano grotto or Crypta Sillana that crossed the Posillipo hill) the Bagno della Pietra<sup>7</sup>, the Bagno di Subveni Homini, the Bagno di Santa Anastasia or dell'Arena (located near the sea, whose very hot waters surfaced by digging into the sand) and the Bagno della Solfatara or Bagno del Foro di Vulcano. The second epitaph indicates 20 baths located between Pozzuoli and Baia. The third epitaph was placed at the far end of the hill of Tritoli, today's Punta dell'Epitaffio, indicating the last 8 baths between Baia<sup>8</sup> and Miseno, and has been lost (Fig. 11).

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<sup>7</sup> "La Pietra", The Stone. According to seventeenth-century writers (Mazzella, Mormile, Sarnelli), the place name originated from a Terma whose waters also had the virtue of 'breaking the stone in the bladder, i.e. the stones, and taking away the renella'. Anecchino believed, however, that the toponym derived from the area's quarry. (DI FRAIA 2013, 16).

<sup>8</sup> Thermal structures required large quantities of fresh water, typically rainwater collected in cisterns that were often hypogean (FERRARI, GUIDONE, LAMAGNA 2015, 493).



Fig. 11. Extract of the map depicting the Gulf of Naples with some of the hot springs from Naples to Miseno highlighted, as reported in Sebastiano Bartolo's epitaphs of the 17<sup>th</sup> century (elaboration by Antonio Bertini on the cartographic base of the Istituto Geografico Militare (Igm) 1890, Carta d'Italia al 100.000, Foglio 184 'Napoli', published in 1905).

“Among the ancient buildings for thermal use in the area that were probably compromised by the events were two “trugli” - the popular name given to the domed central-plan structures - whose existence is testified by a group of drawings, including originals and copies, drawn up between the 15<sup>th</sup> and 17<sup>th</sup> centuries”<sup>9</sup>. Phlegraean thermalism lived its last golden age between the second half of the 19<sup>th</sup> century and the first decades of the 20<sup>th</sup> century when the development of ancient thermal springs and the discovery of new ones allowed the birth of new establishments, very elegant and comfortable, built in the new Art Nouveau style. Among the spas in operation at the time was the Terme di Agnano in Agnano, the Terme Masullo in Bagnoli, the Terme Tricarico, the Terme Cotroneo, the Terme Rocco and the Terme Manganella (built where the Bagno di Giuncara described by Simone Bartolo once stood). Between the Dazio and stations of the Cumana railway, Terme La Pietra, the Balneolo thermo-mineral establishment, Terme Minerali Di Leo, the Antiche Terme Calatura and Terme Vitolo were built. In Pozzuoli, the Terme Terracciano, Terme Puteolane, Terme La Salute and Terme Pisano Verdino are worth mentioning. Starting in the second half of the 19<sup>th</sup> century, a residential district was built next to the old farmhouse, transforming the area into a small residential and spa resort characterised by simple Art Nouveau architecture equipped with a promenade and thermal baths and connected to

<sup>9</sup> LANZARINI 2021, 8.

Naples by the first section of the Cumana line. Around 1880, the first omnibus line, horse-drawn carriages on rails, was inaugurated, connecting Fuorigrotta with Pozzuoli, passing in front of the thermal baths. Later, the line was extended as far as Torregaveta and replaced by the tram. In 1892, the Cumana railway from Naples to Torregaveta, already in operation since 1889, was also inaugurated. Even today, from Piazza Bagnoli to the old Dazio (in the area on the western border between Naples and Pozzuoli), at least seventy thermal water veins have been found, which could be used to create a spa area in the Bagnoli area, almost marking a return to the origins of the early 20<sup>th</sup> century<sup>10</sup>. After the war interlude, the decision to industrialise the area compromised the previous activities, forcing almost all the spas to close and relegating the survivors to a niche activity. Today, the Terme Puteolane and a spring captured in 1950, inside the Averno Tourist Complex ('Damiani'), used for saunas and whirlpools, with a temperature of 70°, remain in operation. This is not the first time that Puteolan thermal waters have been forgotten. Despite everything, they still exist and possess their beneficial characteristics intact. Sooner or later they will again be considered a resource, even for employment; for now, they rest in peace in the lap of the Phlegraean volcanoes<sup>11</sup>.

### 3. The Agnano Baths case study

The Agnano area is located in the western part of Naples, bordering the territory of Pozzuoli and is part of the still-active Campi Flegrei volcanic complex. The volcanic activity of this area is evident in the numerous manifestations of a geothermal nature that have characterised these places since antiquity, such as the volcanic fumaroles and thermo-mineral springs in which the soil is rich and whose use for therapeutic purposes has very ancient origins, well attested by documents and literary sources, as well as numerous archaeological remains. The oldest archaeological evidence found in Agnano dates back as far as the 4th-3rd century B.C. and can still be seen today inside the park of the current baths. These are some wall fragments of Greek origin from what is probably the oldest Phlegraean thermal structure ever found, although the debate on the subject is still open. Also at Agnano, whose thermalism in reality almost always followed rather autonomous historical paths, an imposing thermal establishment was built in the age of Hadrian (117-138 A.D.). It was distinguished by the grandeur of the building, which was developed on seven superimposed levels, with a

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<sup>10</sup> The baths of Baia were rediscovered in the early 20<sup>th</sup> century and once the excavation work was finished, they were the subject of an archaeological restoration project that served as a school and laboratory in Italy, designed by Amedeo Maiuri. A reconstruction of the event can be found in: VERONESE 2018, 20-43. [www.fupress.net/index.php/ra/](http://www.fupress.net/index.php/ra/)

<sup>11</sup> DI FRAIA 2013, 12.

front of about three hundred metres, by the great variety of mineral waters and above all by the perhaps unique characteristic of heating the rooms by exploiting the natural heat that escaped from the side of the Monte Spina hill, on which the structure rested. Unlike the more famous baths of Pozzuoli and Baia, however, the Agnano baths did not enjoy the same notoriety as they were not located in a major town but at some particular station of the 'Puteolis-Neapolim per colles' road that in antiquity connected the cities of Naples and Pozzuoli. After the fall of the Western Roman Empire, like all the great bath complexes in the area, the building was abandoned until the end of the 5<sup>th</sup> century when, at the behest of Thrasamond (496-523) king of the Vandals, it was magnificently enlarged and restored. According to the description of the poet Flavius Felix (493-500), the reconstruction work was such that in the Middle Ages, when the Puteolan and Baian buildings had already fallen into ruin, the building at Agnano, still in operation, became the most renowned Phlegraean mineral bath complex.

Traumatic geological events disrupted the layout of the territory and changed the circulation of underground water, favouring, around the 11<sup>th</sup> century, the formation of a large lake that submerged the whole of the most depressed part of the plain. The building, no longer fed by the coffin and thermal springs, slowly fell into disrepair and, stripped of its mosaics and every marble covering and ornament was forgotten for a long time.

Nonetheless, for many centuries the thermal activity at Agnano survived thanks to the spontaneous and uninterrupted exploitation of the extraordinary gaseous emissions that leaked from the soil and the hillside at the edge of the Lake. These hot springs were enclosed within several artificial caves in a small isolated building known in antiquity as the 'Sudatorio di Agnano' or 'Stufe di S. Germano'.

The great fame that these stoves enjoyed in the Middle Ages, with their extremely hot dry vapours and extraordinary curative properties, was also due to the Christian imagination which, after the fall of the Western Roman Empire, slowly replaced pagan mythology in attributing supernatural meanings to the "purgatorial" visions of the Phlegraean area, often using simple transpositions of already consolidated myths and beliefs. Also contributing to Agnano's notoriety was the widespread presence throughout the area of volcanic phenomena such as the "mofete", or hot emissions of carbonic acid gas that occurred, in particular, in the so-called "Grotta del Cane" (Dog Cave) and the lesser-known "Grotta del Morto" (Dead Man's Cave), which attracted travellers from all over Europe with their curious properties.

From the earliest history, thermal sites were not only considered places of physical well-being but also places for spiritual well-being. We need only cite a few striking examples from the past, as the waters of the Nile and Ganges rivers were considered sacred and therapeutic waters. Similarly, the waters of the Agnano thermal site became not only a place for physical but also spiritual well-being, as evidenced by the sanctuary dedicated to Igea and Asclepio.

Moreover, it was only with the arrival of the Romans that the thermal baths in the Phlegraean area attained a high status and consideration, and luxurious villas were then built close to the baths in the Gulf of Naples. These singular natural phenomena, together with those told of the lake, with its bubbling waters devoid of fish and its shores frequented by numerous frogs and snakes, not only aroused the interest of many scientists but also fuelled popular curiosity and fantasy to the extent that Agnano gained the reputation of a 'magical place'.

This state of affairs persisted undisturbed until Alfonso of Aragon (1396-1458) decided to transfer the maceration of hemp and flax already introduced by Charles II of Anjou (1248-1309) at Ponte della Maddalena to Lake Agnano. This activity, pestiferous and risky for the salubrity of the air, was very profitable because of the sophistication of the hemp and linen macerated in those marshy waters. Despite two bans issued following the plague, the first in 1656 and the other in 1663, the retting of hemp continued until the first half of the 19<sup>th</sup> century, making the waters of the lake, already infested with the *Anopheles* mosquito, the bearer of infectious diseases, increasingly putrid and smelly, thus leading to the definitive decline of all Thermal Spa activity at Agnano (Fig. 12).



Fig. 12. Lake Agnano with the 'sudatorio di San Germano' and the 'Grotta del Cane' in a 1612 depiction by J. Hoefnagel and part of the *Civitates Orbis Terrarum*, the first atlas of the world published by Braun & Hogenberg.



When the draining was completed in February 1871, a complex system of basins and canals, still in operation today, was built to permanently prevent the lake from reclaiming 130 hectares of land for agriculture. But the reclamation had a completely unforeseen side effect that conditioned the fate of the plain much more than the recovery of the land to agriculture did. The history of thermalism in Agnano began in the second half of the 19<sup>th</sup> century, more precisely on 28 September 1870, the day on which the draining of the ancient and 'pestiferous' Lake Agnano was begun. After the Unification of Italy, in fact, with a law issued on 3 May 1865, the new unitary state decided to reclaim the lake by granting a Neapolitan entrepreneur, the engineer Martuscelli, to carry out the work at his own expense in exchange for ownership of the reclaimed land and the surrounding state-owned land. The reclamation began with the excavation of the emissary canal along a 1,463 m long, entirely underground, rectilinear route that traversed the Monte Spina hill as far as the Bagnoli beach and was opened on 28 September 1870, allowing the foul-smelling lake water to slowly flow into the sea (Fig. 13).



Fig. 13. Photo by Giorgio Sommer showing part of Lake Agnano before its draining and, on the right, the hunting lodge, in neo-medieval style, commissioned by King Ferdinand IV.

On that occasion, he succeeded in creating a strong consensus on the need to create a The archaeological complex of the Baths of Agnano consists of four distinct archaeological areas, which fall within the area currently occupied by the modern Baths

of Agnano, along the edge of the ancient caldera, which only became a lake in the Middle Ages, of Agnano. The area of the Phlegraean Fields, particularly rich in secondary volcanic phenomena, was first used for therapeutic purposes from the 2<sup>nd</sup> century B.C. onwards. Numerous complexes sprang up to exploit the intense activity of the soil, including the Agnano thermal baths. The layout of the spaces in the natural baths was strongly influenced by the local topography and the location of the heat and hydro mineral springs. In the first phase, the thermal area consisted solely of a series of rooms excavated in the rock, in direct contact with the vapours coming from underground. Sweat baths were carried out here, which, according to ancient medicine, allowed harmful humours to be expelled. The practice of bathing in cold or hot water was also linked to the presence of natural springs. In the second phase, the need to increase the number of spaces for use led to the expansion of the original core, which was enriched with new masonry rooms, away from heat sources. It was, therefore, necessary to provide heating for these rooms as well. According to classical sources, the inventor of this system was a wealthy Roman entrepreneur, Sergius Orata (late 2<sup>nd</sup> century B.C. - early 1<sup>st</sup> century B.C.). He is credited with introducing into the Roman world the use of hypocaustum, known in Greece as early as the 3<sup>rd</sup> century B.C. as an indirect means of spreading heat. Finally, the application of a technique to artificially produce heat marked the definitive affirmation of thermal practices in the daily life of the Romans: the presence of a furnace under the floor (hypocaustis) and, later, the use of a lateral feeding furnace (praefurnium) allowed, in fact, the birth of thermal complexes even in areas without natural springs. Among the most valuable assets of the Baths of Agnano are the natural saunas, here called Stufe di San Germano, named after the Bishop of Capua who, according to Gregory the Great in his 'Dialogues', was cured here for arthritis associated with a skin disease. This dry bath or sudatorium was probably part of the Hadrian-era facility that was later rebuilt by the Vandal king Thrasamond (496-523), the remains of which are still standing and visible to the southeast of the structure.

### 3.1 *The figure of Joseph Schmeer*

In 1887, a Hungarian doctor named Giuseppe Schmeer, attracted by the fame Italy enjoyed among foreign intellectuals, travelled to Naples. Among the many excursions he made on that occasion, he went to Agnano, a place that had always been renowned by all European countries for its San Germano stoves and naturalistic curiosities such as the phenomenon of the Grotta del Cane that so fascinated travellers on the 'grand tour'. He was able to ascertain that the immense reclaimed plain of Lake Agnano was rich in thermal springs of all kinds with remarkable medical potential. Even though Schmeer was no stranger to experience in the field of thermalism in our country, he

realised that there was a virtually unexplored area at Agnano with enormous potential yet to be studied. Realising the considerable potential of that area, he began a study of those waters and their therapeutic effects. At the same time, he started an experiment on the sick sent to him, with their diagnosis, by the most renowned Neapolitan clinicians, treating them free of charge and sending them back to those same colleagues at the end of the treatment. The results were extraordinary and this contributed to a growing interest on the part of the Neapolitan medical world in this new therapeutic methodology. From 1889 onwards, Schneer collected an enormous amount of data that later became an indispensable reference for anyone who approached the study of treatments with the waters and mud of Agnano. The architectural and organisational model reflected that of the great European spa towns. However, it failed to lead to the establishment of a society capable of realising these ideas. Between 1904 and 1906, he built a modest masonry establishment to which he devoted all his energy, assisted by Professor Gauthier and what later became the medical director of the Agnano thermal baths, Dr Emilio Di Tommasi. A new important impulse for the growth of Schneer's establishments occurred in 1905 when the King of Italy accompanied by the Emperor of Austria visited Agnano. The king was so impressed by these extraordinary resources and their therapeutic properties that, starting in 1906, he stayed at Agnano periodically, awakening the interest not only of those in the industry but also of the political and business world.

### *3.2 The thermal spa project*

In 1910, the growing interest in the development possibilities of Agnano attracted a group of ambitious building entrepreneurs, the engineers Ricciardi, Borrelli and Mannajuolo, who at that time were engaged in numerous constructions in Naples. Attracted by the building programme presented in 1903 by Schneer, the Neapolitan entrepreneurs, after having commissioned some feasibility studies and design hypotheses from a young architect from Piacenza, Giulio Ulisse Arata, around 1907-08, decided to invest in the construction of the Agnano spa. On 16 February 1909, the first 'Società Terme di Agnano' was established. On 20 June 1910, the company was transformed into an Anonima (limited company) to obtain more funding, but on 10 August 1910, after having exerted all possible efforts to realise the ambitious project of the Agnano spa, Giuseppe Schneer died. From that moment on Agnano, having by then become the example of a permanent thermal spa, saw its activities and thus its international prestige increase considerably (Fig. 14).

The excavation work of the ancient Roman baths, begun by Schneer and continued until the mid-1920s, was also decisive. However, after the inevitable halt due to Italy's entry into the war, it was only between 1915-1918 that the thermal baths resumed operations.



Fig. 14. Period photograph by an unknown author from 1880 showing the entrance to the Baths of Agnano built to the design of the Piacenza architect Giulio Ulisse Arata.

A succession of congresses and conventions on hydro-climatology and hygiene began to take place, especially in southern Italy, to valorise and stimulate the exploitation of the extraordinary hydro-climatic heritage that represented a concrete development opportunity for the regions hardest hit by the conflict that had just ended. The Agnano spa thus became an example for all the thermal and climatic resorts in southern Italy, which, despite counting on extraordinary natural resources, were unable to take off due to the serious damage suffered during the war. For the Agnano establishment, the decision to keep the thermal activity open all year round was strategic, thanks to the mild climate even in winter, contrary to the large facilities in northern Italy, as well as the rest of northern Europe, which continued to practice thermalism only in the hot season. In the 1920s, great efforts were made to complete the building works undertaken in the 1910s by carrying out substantial architectural transformations and even extensions that were, however, overhauled in the 1960s. The first works concerned the springs, which had not undergone any interventions since Schmeer's time, having concentrated all energies in the 1910s on the construction of

the nursing wards. But already during the war, a campaign of soundings had been carried out in the drainage plain, which did not take long to bear fruit. The great Baths of Agnano, however, did not remain active for long and not only because of the changed historical and social conditions.

#### **4. Conclusion**

The guiding thread that directed this initial study developed around the topic of the history of thermal baths in Naples and Budapest was centred on the historical, social, political and economic reconstruction of thermalism, to stimulate a comparison between the reality of Campania and that of the Hungarian capital. The reflections that emerged from this first phase of the study, which saw the fine-tuning of the methodological framework to proceed with a reciprocal comparison, started from the awareness that there is potential in the Phlegraean area that could encourage forms of mixed territorial aggregation, both public and private, to create a system of articulated and integrated tourist offer. The same methodological approach, but on the Hungarian front, could be adopted to reconstruct the forms of management of spa facilities in Hungary and, in particular, in the capital. This type of approach made it possible to reconstruct the path of creation and development of thermal facilities in the Bay of Naples, with particular reference to the Agnano thermal baths, which developed thanks to the presence and impetus initiated by the Hungarian physician Giuseppe Schnerer. The figure of the Hungarian doctor represented the trait union for the analysis and comparison proposed by the authors in this study. The spin-off of this activity can contribute to creating economic activity, but also enhancing local resources. In fact, in the Campania region, the regional legislation reorganising tourism of 10 December 2012 provided for the identification of districts based on a reorganisation of the Aziende Provinciali per il Turismo (APT). The hope is to be able to start a debate on this topic that can fill the scarce existing literature, the scope of which could give interesting impetus to the debate, to sustainably increase the development of such important landscape areas.

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