

THE ROMAN BATHS

CHAVES



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AQUAE FLAVI



THE ROMAN BATHS CHAVES



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AQUAE FLAVIAE: THE “WATERS OF FLÁVIO”

■ Welcome to the Roman Baths of *Aquae Flaviae*. Before you is one of the most extraordinary and well-preserved medicinal water complexes in the Roman world.

The archaeological work carried out here between 2006 and 2015 uncovered,

among various remains, the ruins of the medicinal spas of *Aquae Flaviae*. It was an incredible find that came to attest to the importance that medicinal waters had in the Roman city.



Denarius of Titus Vespasianus, 79 AD.

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ATLANTIC
OCEAN

■ *Aquae Flaviae* originated in a mansio (inn) located at the place where the great road linking *Bracara Augusta* (Braga) to *Asturica Augusta* (Astorga) crossed the Tâmega River. This was called *Ad Aquae* due to the presence of hot springs. The cluster grew

quickly having received the statute of Roman municipality in the year 70 AD, attributed by the emperor Tito Flávio Vespasiano who renamed the city *Aquae Flaviae*.





AQUAE FLAVIAE: A LARGE METROPOLIS

■ The city of Chaves was one of the most important cities of Gallaecia. Its geographical position between *Bracara Augusta*, the current city of Braga, and *Asturica Augusta*, the current city of Astorga, both provincial capitals, its good agricultural land, its proximity to the gold mines of Jales and Três Minas, in Vila Pouca de Aguiar and, above all, the existence of thermal waters, made it one of the most strategic points in the entire region.

In 73 and 74 AD, *Aquae Flaviae* was part of the *conventus Bracaraugustanus*, having been elevated to *municipium latinum* (municipality), coming to enjoy the *ius Latii*, a law that granted Roman citizenship to indigenous peoples, becoming an important political centre, disseminator of the Roman culture.

With the end of the 3rd century AD

and the beginning of the 4th, there was a progressive decline in the city's importance for political and security reasons as a result of the threat of barbarian invasions.

Aquae Flaviae was a typical Roman city that took its place as the capital of the *civitas* (administrative region). As was common in Roman cities, the civic, administrative and religious centre of municipal life was the *forum*. It was here that the two main arteries crossed: the *Cardo* and the *Decumanos Maximus* from which the remaining streets radiated in a regular urban layout, ordering the residential areas of wealthy houses (*domus*), buildings (*insulae*), commercial areas (*tabernae*) and cemeteries that were outside the city next to the access gates. This is where the mining and transport of gold taken from the mines close to Jales and Três Minas were controlled and thousands of sick people came from great distances to be treated here.



Roman bridge of Chaves,
also called Trajan's bridge.

In fact, what would mark the urban image of *Aquae Flaviae* was the monumentality and prominence of the Complex of the Medicinal Roman Baths, located next to the iconic bridge over the Tâmega River. Remarkable for its monumentality and state of conservation, the spas of *Aquae Flaviae* are found side by side with other famous medicinal spas such as those in Bath (*Aquae Sulis*) in England, Badenweiler in Germany, Hammam Salehine (*Aquae Gadaris*), in Palestine, and São Pedro do Sul, in Portugal.

It is located in front of a therapeutic-type thermal complex, which differs from the hygienic spas common to all Roman cities, both in terms of form and function. In addition, the Roman baths at *Aquae Flaviae* have particularities that make them special: a vast water catchment area, a large influx of users, the need to cool the water temperature and the level of the springs located about three metres below the street level of the Roman city.

*T*ALL hot springs are, therefore, medicinal; because boiling in the soils through which they pass, they acquire many virtues. Thus sulphureous waters restore, by their heat, those suffering under nervous complaints, by warming and extracting the vitious humours of the body. If any member of the body, either from paralysis or other malady, become useless, aluminous waters warm it, and introducing, through the open pores, the opposing power of heat, restore it, and thus it immediately regains its former strength. Bituminous waters, taken inwardly, act as purgatives, and are excellent for the cure of inward complaints.

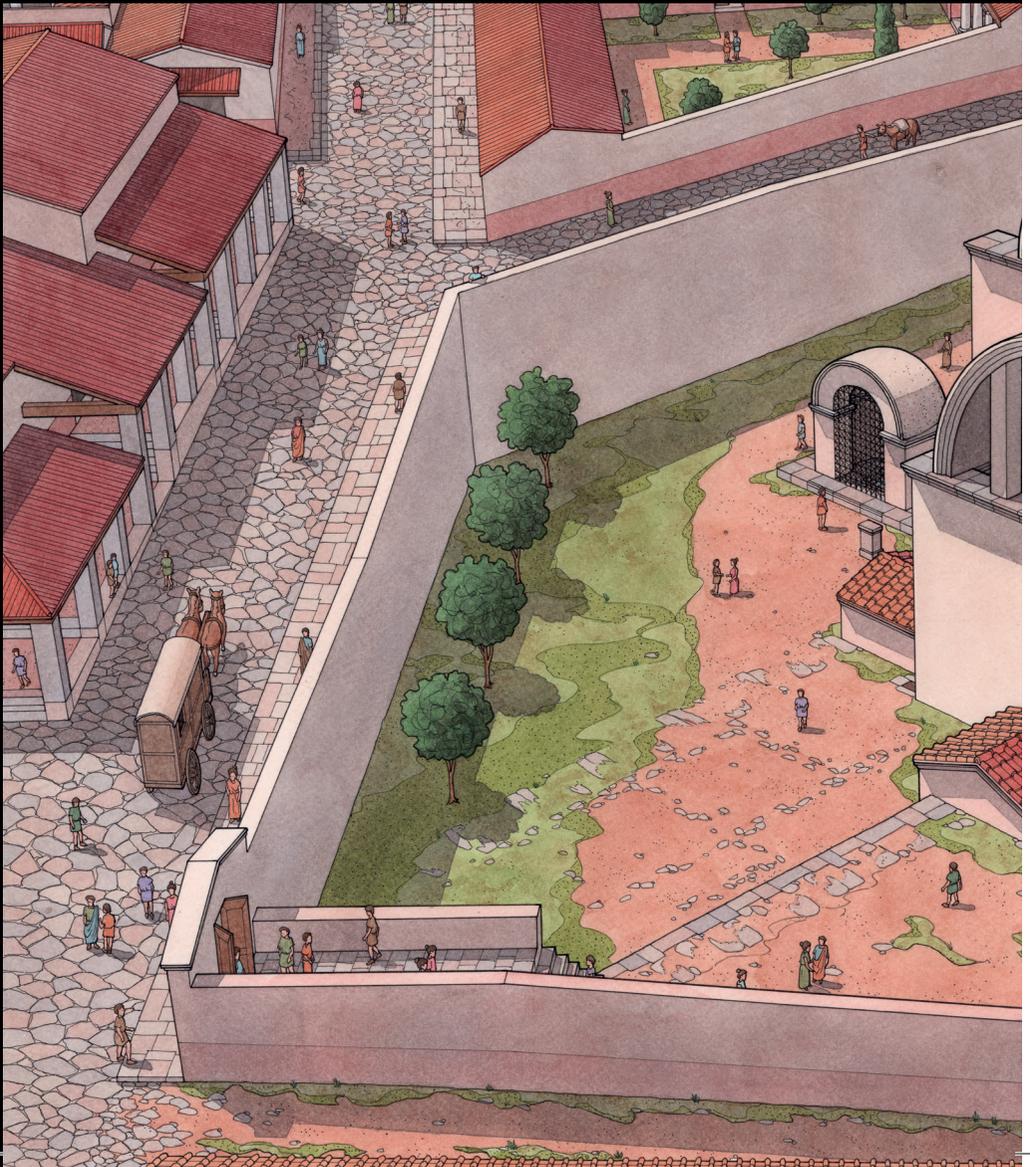
Marcus Vitruvius
Pollio: de Architectura, Book VIII, III, 4.

*When fire is generated under ground,
and the soil is heated all round,
either from abundance of alum, bitumen,
or sulphur, the hot vapour ascends to the upper
parts, and, if there are therein springs
of sweet water affected by its spreading through
the pores, they grow hot, without injury
to the flavour.*

Marcus Vitruvius
Pollio: *de Architectura*, Book VIII, III

WATERS THAT HEAL

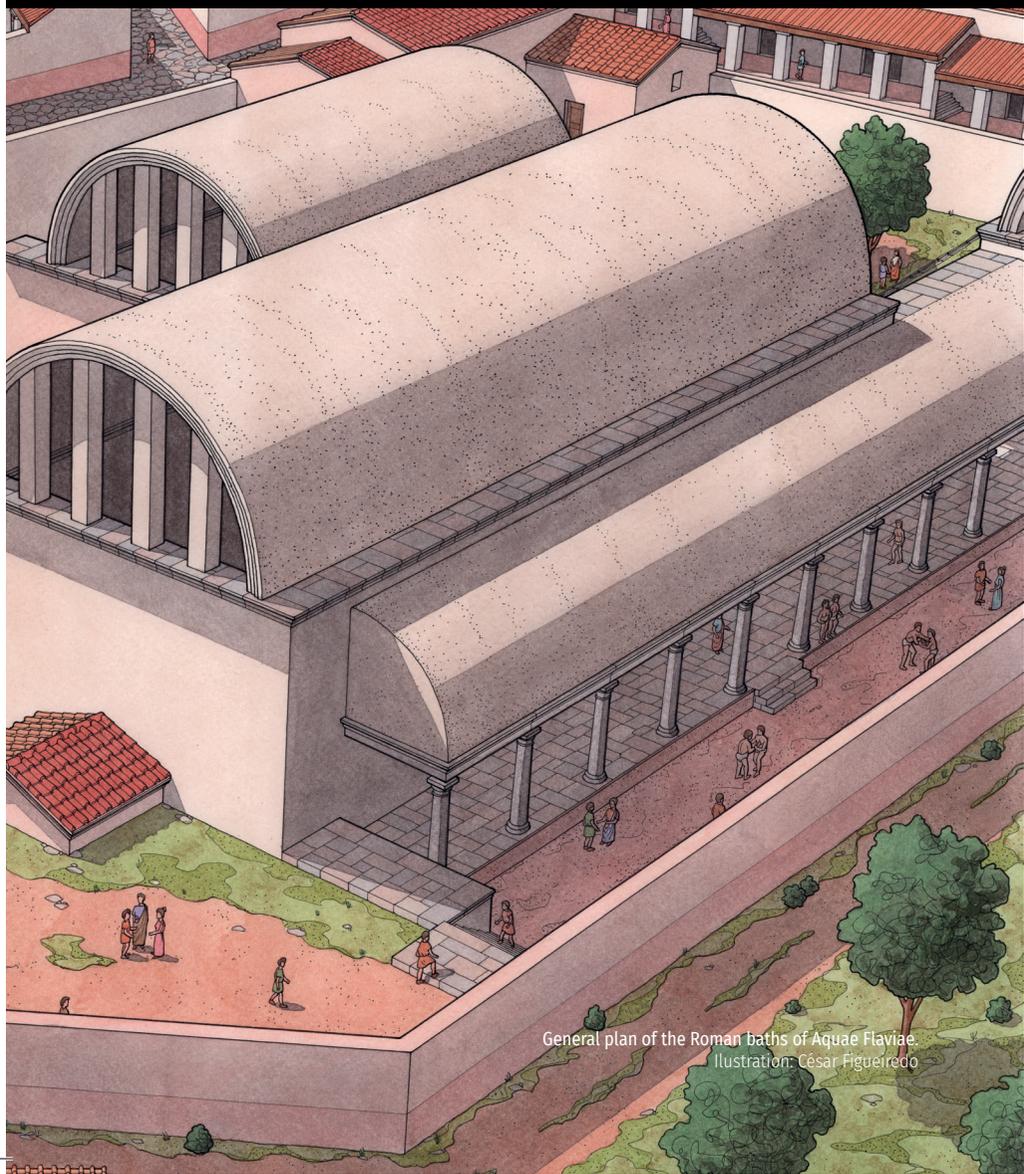
■ This is the slogan used by today's Thermal Spa in Chaves. But it is, of course, a slogan that could equally have been used two thousand years ago. Like today, thousands of patients came, especially between the 2nd and 4th centuries AD, seeking the medicinal waters of *Aquae Flaviae* for a cure for



their ailments. Military personnel came to recover from traumas, people with digestive pathologies and people with respiratory problems. Like today, many came from far away and spent time in *Aquae Flaviae* during their thermal treatments. The thermal complex of *Aquae Flaviae* was built in several phases. There is little left from the first phase dating back to the 1st century

with the major remodelling works carried out at the end of the 2nd or the beginning of the 3rd century, which gave them grandeur and projected them throughout the Roman world. The structures now musealized refer precisely to this heyday phase.

General plan of the Roman baths of *Aquae Flaviae*.
Illustration: César Figueiredo

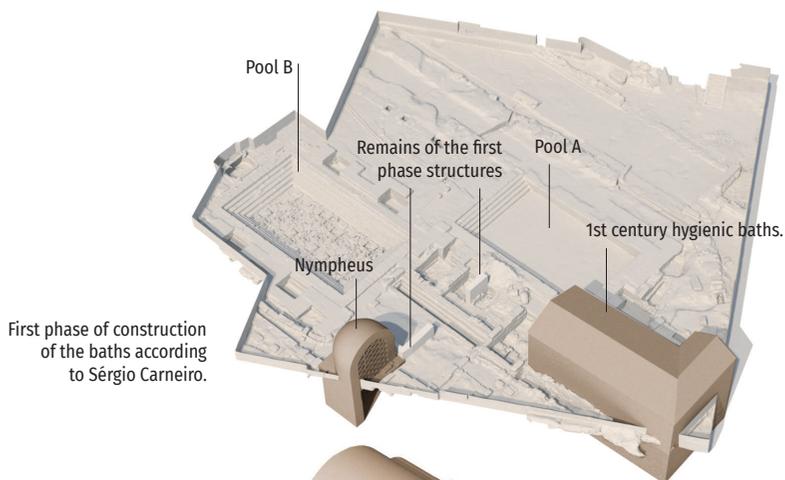


General plan of the Roman baths of *Aquae Flaviae*.
Illustration: César Figueiredo

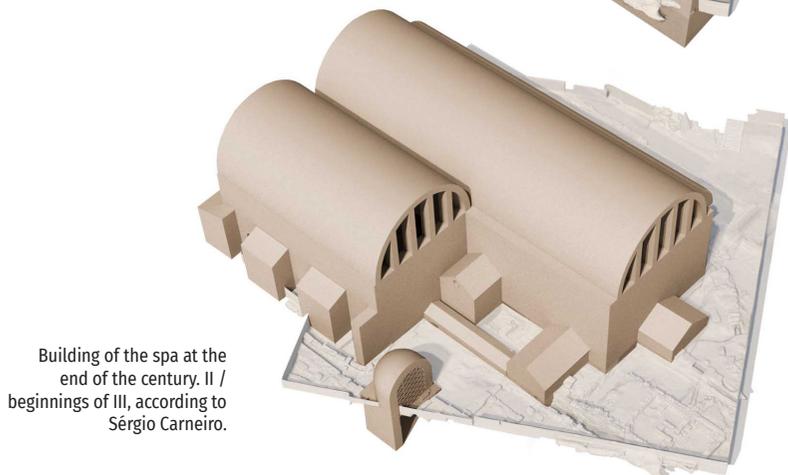
A TRIP TO THE THERMAL BATHS

■ The thermal complex of *Aquae Flaviae* was built on mineral-medicinal water springs. The archaeological work allowed the two construction phases to be individualized. The oldest is from the 1st century, of which only a hypocaust,

a room, some floors and the remains of a wall remain. Between the end of the 2nd century and the beginning of the 3rd century AD, it underwent major renovation work, to which most of the ruins that can be seen today belong.



First phase of construction of the baths according to Sérgio Carneiro.



Building of the spa at the end of the century. II / beginnings of III, according to Sérgio Carneiro.

■ So, imagine yourself, say, in the year 230 AD and go on a tour of the medicinal spas of Chaves. First, you would have had to pay for the treatment and it

depended on how much you wanted to spend. If, for example, you wanted to enjoy the individual pools, you would have had to pay more.

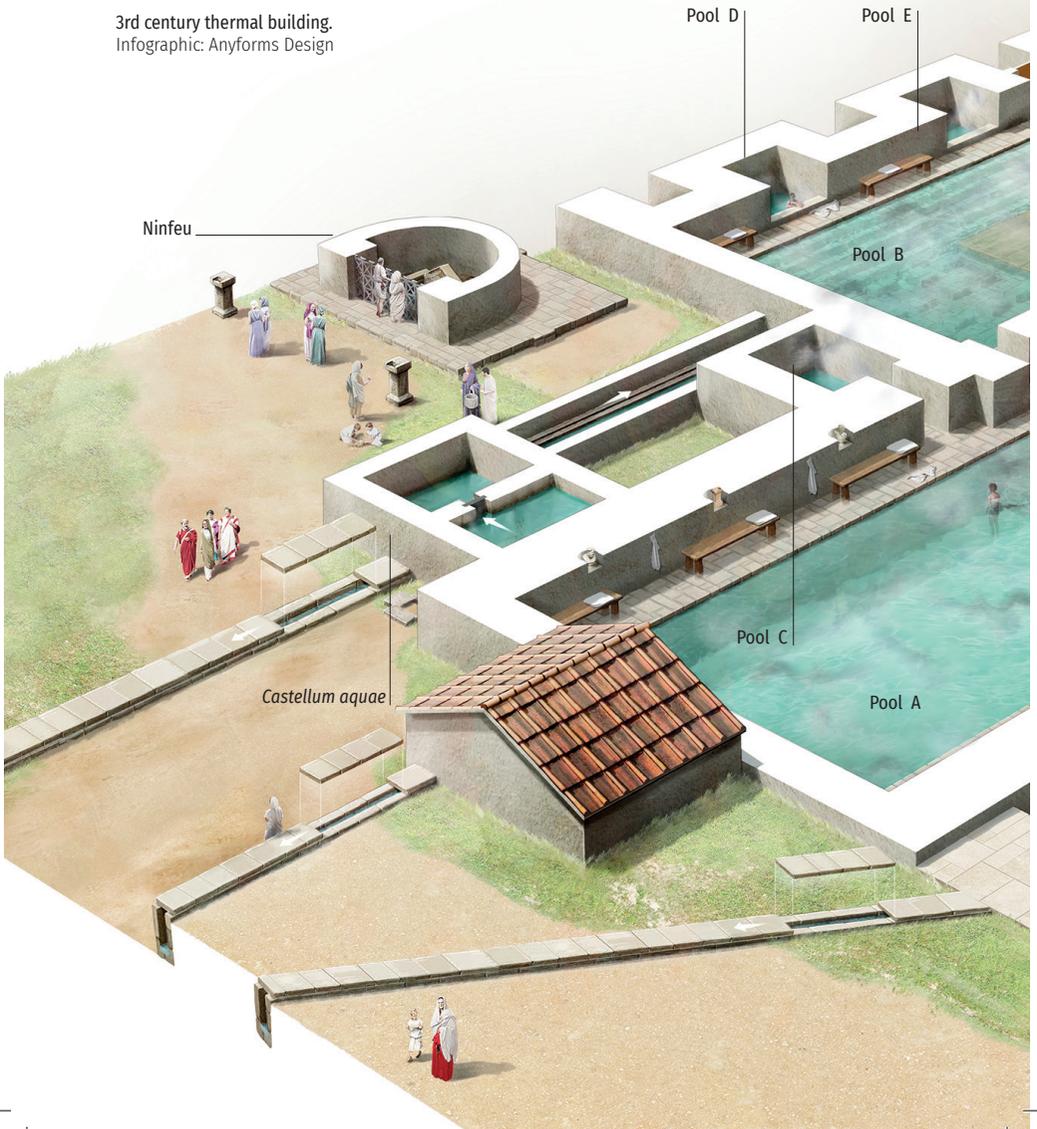
General plan of the Roman baths of *Aquae Flaviae*.
Illustration: César Figueiredo

THE PALAESTRA AND THE PORTICOED CORRIDOR

■ After descending a staircase, you would enter an approximately 40m-long open courtyard. You could sit for a while on the bench that was on your right against the wall that bordered the baths on this side. On the left, you would see a porticoed corridor with a vault

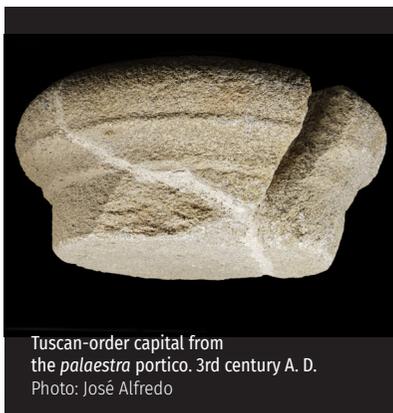
supported by imposing columns with Tuscan capitals. It was a bustling space for meeting people and socializing, but also for the customers to be able to rest. Then you would climb three steps that were in the middle of the courtyard and cross the portico. About halfway through this corridor, you would pass through a door and enter a large room, called Room 2.

3rd century thermal building.
Infographic: Anyforms Design

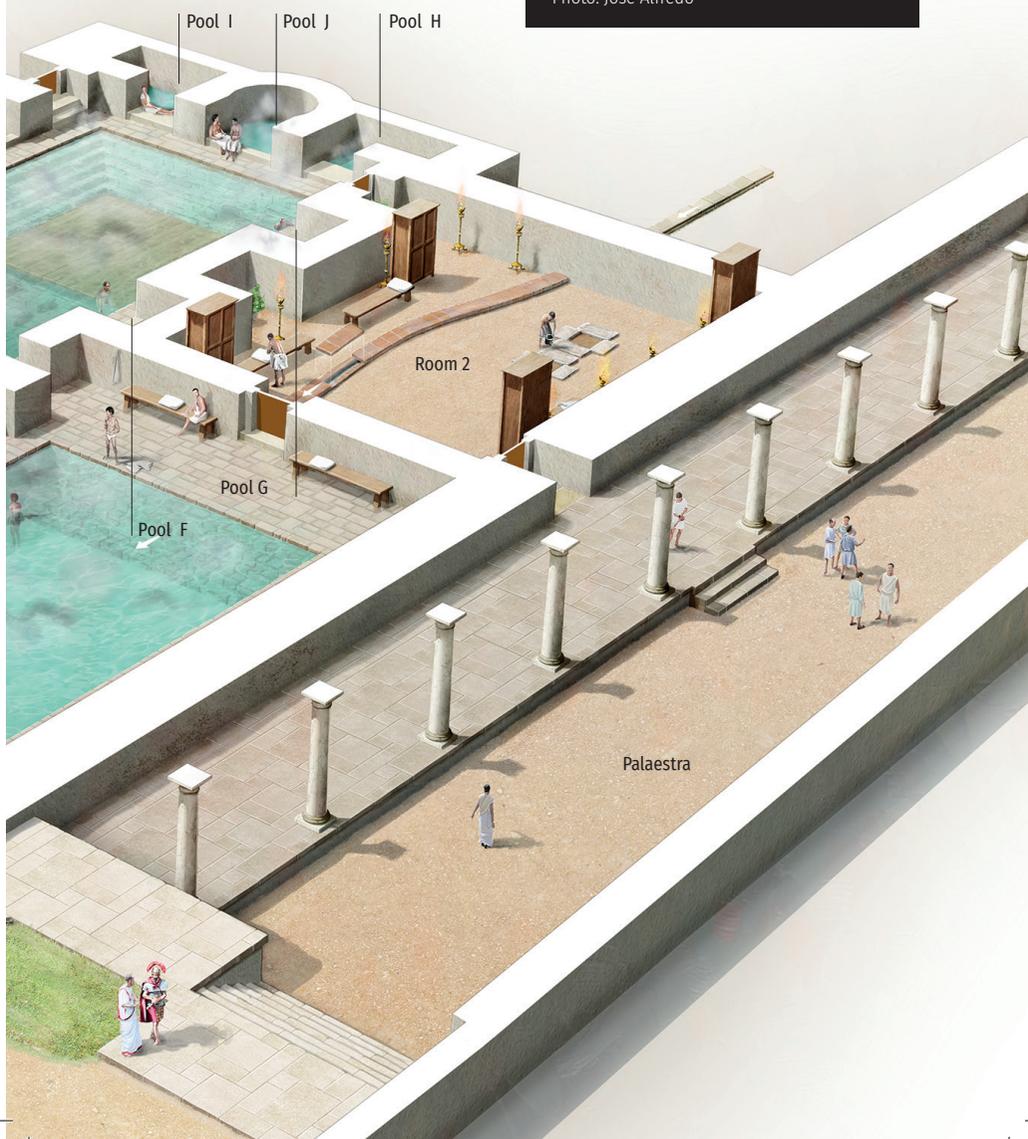


ROOM 2

■ This was a large vaulted room, fifteen meters long and ten meters wide. This is where people undressed to enter the pools, storing their clothes in wooden cabinets. You could hear the water flowing in a channel that was connected to Pool A. From here, you could choose to go to Pool A or Pool B.



Tuscan-order capital from the palaestra portico. 3rd century A. D.
Photo: José Alfredo



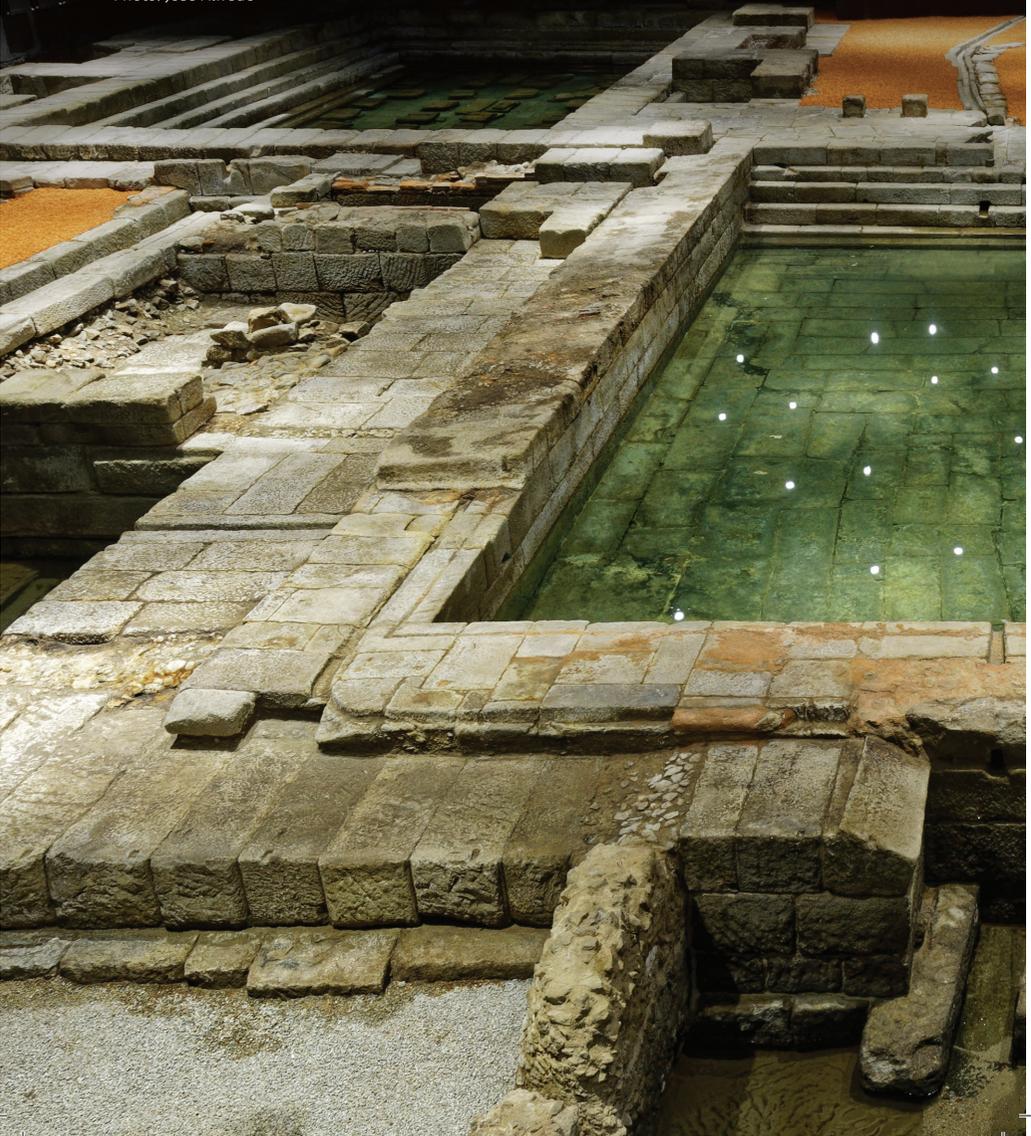
POOL A

■ Entering the room where Pool A is located must have had an incredible impact. If you had entered from Room 2, you would have found a huge room with a cannon vault more than ten meters high. As soon as you had entered the

atrium, you would have been facing the large pool with a length of 13.22 m, and a width of 7.98 m and 1.63 m deep. Before descending the steps into the water, you could lay your towel on one of the benches beside the door. On the stairs there were men and women sitting on the steps, some in the water only up

Pool A.

Photo: José Alfredo



to their knees, others in the water up to their necks. Everything depended on the therapy that had been advised according to the ailment they were suffering from. You would have descended the steps and walked to the bottom of the pool. However, if you wanted slightly warmer water, you could go to Pool C, which

was smaller and deeper and where you could only stand. Hot water came in here through an independent channel, brought directly from the *castellum aqua* a few metres away. Leaving this pool, you could go directly to Pool B through an access at the west end of the room.



POOL B

■ When you entered the room where Pool B was located, the impact was even greater. This is the largest pool in the complex, nearly fourteen meters long, nine meters wide and a depth of just over two meters. On the sides there were four more small individual pools which you could access if you had paid a little more to do so. In the centre, at the top, you could see a niche with

a semi-circular pool where showers could be had by using a bucket. To the side of this niche, there are two small pools, not fully exposed and only half a meter deep. Here, they were either only for bathing feet or only had decorative functions.

A staircase with six steps surrounded the large pool at the bottom of which was a wooden platform. In fact, the archaeological work uncovered 40 granite cubes, placed at regular

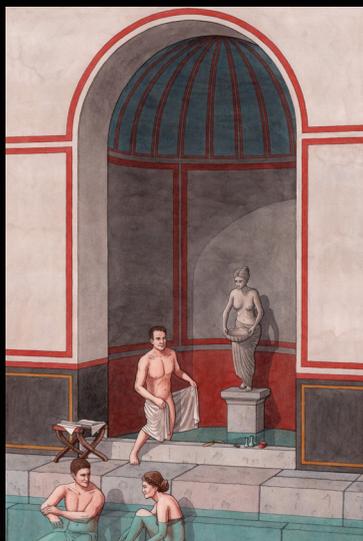
Pool B.

Photo: José Alfredo



intervals, at the bottom of the pool, in order to support wooden beams on which a platform rested. This allowed the occupants to prevent their feet from burning and reduced the depth of the pool to 1.60m, which was the depth of most large thermal pools from Roman times.

After their healing bath, they returned to Room 2, where they got dressed and left. Outside, they went to the nymphaeum, placing an ex-voto for the Nymphs.



Niche on top of Pool B.
Illustration: César Figueiredo





THE END

■ One day, towards the end of the 4th century, the earth shook violently. The vaults that covered the pools fell down catching the bathers off guard. But, history continued and in the 5th century, Pools B and C were cleared and isolated from the destroyed part. The end of the baths happened in the 9th century.

Centuries later, in the XVII century, already without that memory, the space was crossed until the 70's of the XIX century, by the Vedoría's Half Bastion, part of the old fortress from the XVII century.



Waterproof exterior coating of the barrel vault that covered Pool A.

Photo: José Alfredo



Half Bastion of Vedoria, part of the old fortress from the 17th century.

Photo: Sérgio Carneiro.

HYDRAULIC ENGINEERING

■ For everything to work perfectly, this building had to be thought of in detail from planning to construction. After carefully choosing the location, they identified which spring points they wanted active. Afterwards, they made the entire terrain waterproof by placing a thick layer of *opus caementicium* (concrete). In this way, rainwater and water from the nearby river did not mix with minero-medicinal waters. The materials were chosen according to what they wanted to build and their resistance to the corrosion of these waters. The pools were lined with *opus quadrantum* (parallelepiped ashlar arranged in a row), in granite, which gave

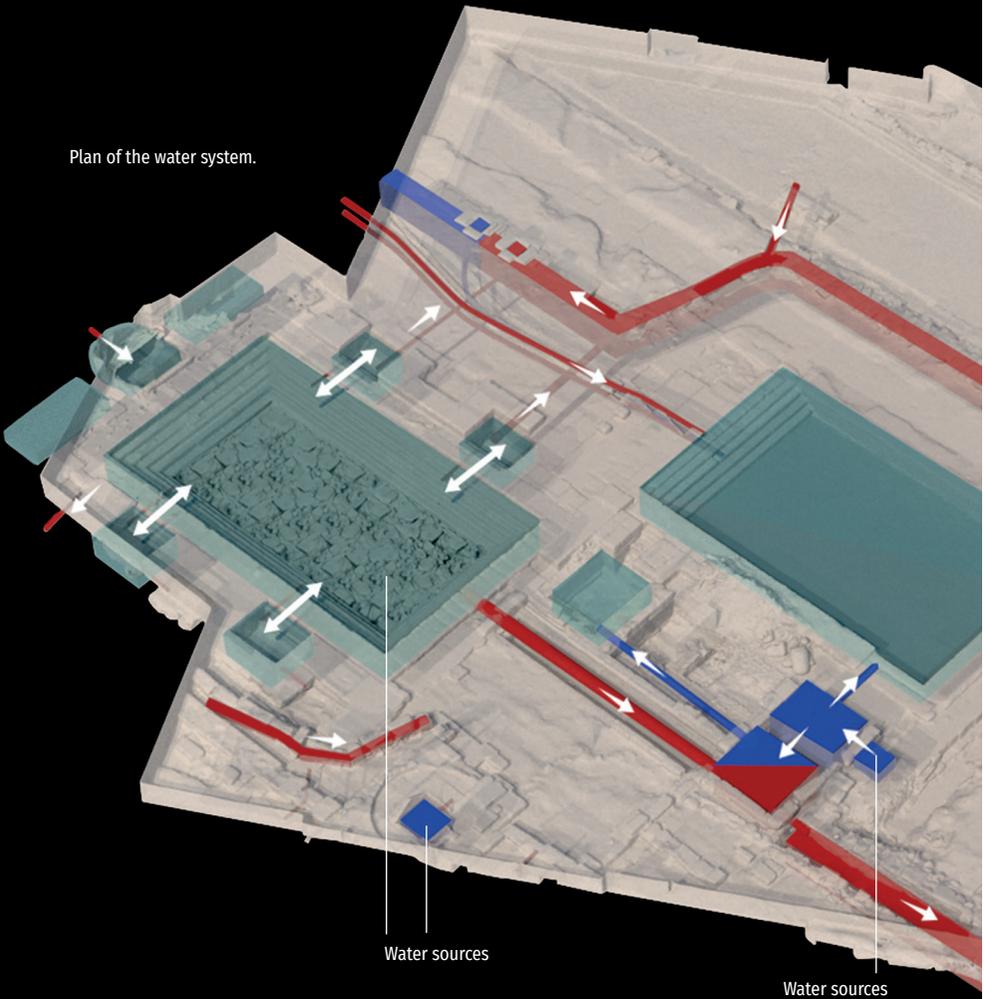
them the necessary strength. This stone appliance was, in turn, coated with *opus signinum*, a waterproofing mortar made from ground tile, which gave it quite a different visual appearance from what we have today. The walls were plastered and the vaulted roof was likely plastered too. The roof, built and plastered in this way, would be decorated with flutes that accompanied its curvature, allowing the cool, condensed water to flow laterally and not fall on the bather. Truly extraordinary was the innovative system used to prevent bathers from burning their feet at the bottom of Pool B. To prevent this from happening, they placed a wooden platform resting on rafters which, in turn, rested on 40 granite cubes.

CONDUCTING AND DRAINING THE WATER

The intelligent water supply conduction and drainage system were truly admirable! Effectively, it was necessary to think about how the thermal waters that were three metres below the level of the houses, reached the pools.

So, after covering the ground with a thick layer of concrete (*opus caementicium*), they left four hot spring water points: one at the bottom of pool B, another in the Nymphaeum, another in a well next to Pool A and still another somewhere to the north. The water reached the *castellum aqua* through a wooden pipe

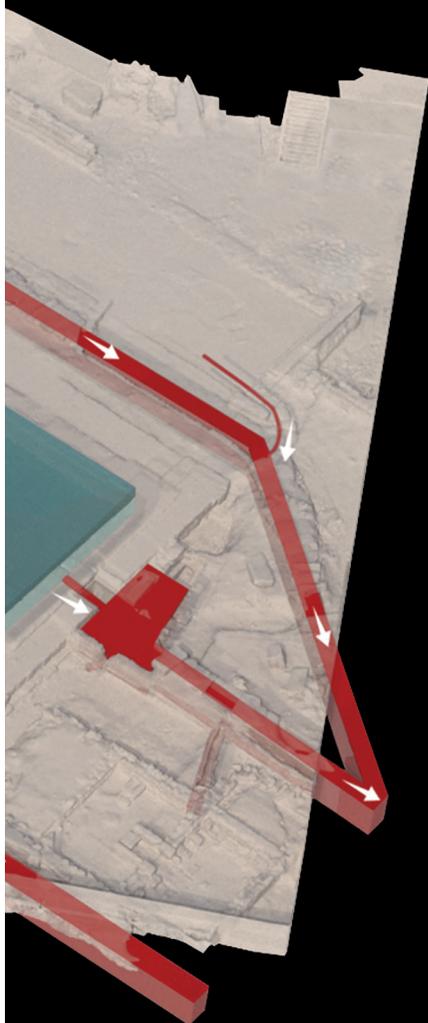
Plan of the water system.



inside a hole in the wall and from there it was conducted to Pools A and C. The water drainage system was also exceptional! In fact, at some point, it would be necessary to empty the pools for cleaning or repairs. To do this, they used channels and sluices that led the water to the outside through the sewers.

O CASTELLUM AQUAE

■ Next to Pool A, you can see a unique work of hydraulic engineering: the *castellum aquae*. It is a reservoir from which water was distributed to pools A, B and C, which was extracted from a catchment located to the south of the building. After being filtered through a layer of sand at the bottom, the water was then led to the pools. There was also an entire system for emptying pools B and C when they had to be cleaned or repaired.



Castellum Aquae.
Photo: José Alfredo

OUTSIDE THE BATHS

THE NYMPHEUM

■ A short way off, on the outside, inserted in a semi-circular portico (exedra) and without direct communication with the baths, you can see an interesting monumental spring in the shape of a well, called the nymphaeum, a temple dedicated to the Nymphs, water deities, but also

the guardians of this earthly place. This 1.70m-deep rectangular well in *opus caementicium* was filled with thermal water through a hole in the bottom. Another hole at the top of one of the walls ensured the excess water was drained away via the overflow pipe. The end has an altar-like structure where a triangular tympanum decorated with a rosette stands out.

Ninfeu.

Photo: José Alfredo





Bessalis. Bricks used in the pillars that elevated the floor of the hipocausto so that it could be heated underneath.

Photo: José Alfredo

THE HYPOCAUST

■ At the southern end of the complex you can see the ruins of a hypocaust dating back to the 1st century, the first phase of construction of these spas. This type of structure served, as we know, to heat rooms and water boilers. But then why heat water when there is a spring ten meters away that sprouts water at approximately 70°C? The answer lies in the fact that these are part of a hygienic spa that used “normal” water. That is, the Romans already had the notion that medicinal waters should be used only for therapeutic purposes and not for daily bathing, for which they used ordinary waters.



THE ARTIFACTS

■ After the collapse caused by the earthquake, the water draining ducts were clogged, causing the accumulation of a black mud, very fine and compact, which created a humid, stable and anaerobic environment, preventing the degradation of organic matter and the oxidation of metals. Therefore, in addition to the pottery and stone that normally make up the vast majority of archaeological finds, wood, wicker, bone and metal artefacts were found in an excellent state of preservation. Among the objects that can be distinguished are boxwood combs; wooden bowls that, curiously, reproduce

the shapes of fine ceramics (*terra sigillata*) from the same period; a wooden ampulla (canteen-shaped container) with a Christian inscription; a glass bottle with a basket-weave lining and cork insulation (possibly to transport the thermal water); hair pins (*acus crinalis*) in bone, bronze bracelets, necklace beads in cornaline and holly, tweezers, spatulas and ligulas related to personal hygiene; instruments related to writing, such as bronze styluses for writing on wax tablets, calamus-sharpening knives and a seal box, which was used to close correspondence. A marble head representing a young



Votive altar dedicated to the Nymphs foun by the Nyphaeum, reused as a pavement block.
Photo: José Alfredo



Marble portait head of a young woman dated 220-235 a.d.
Photo: José Alfredo

woman with the hairstyle of Julia Mameia, mother of the Emperor Alexander Severus, was found lying at the bottom of Pool A. It dates from the beginning of the 3rd century. It would have been decorating a niche of the pool room, as well as a small ara, also in marble, that was lying nearby. But, of all the pieces, the one that stands out most for its rarity is the bronze pyrgus (dice-throwing tower), near which two bone dice were found. The archaeological work also made it possible to identify the presence of cypress fruit, one of the first evidence of this species in the Peninsular West, as

well as walnut and chestnut shells and peach and plum kernels that testify to the consumption of these fruits in the baths.

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Corinthian-order column base. Found by the hypocaust. Part of the first phase of the baths, 1st century A. D. Photo: José Alfredo



The pyrgus of Chaves. Photo: José Alfredo



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Part of an ornamental plaque
decorated found on the bottom of Pool A.
Photo: José Alfredo

