## HISTORY OF HUNGARIAN BALNEOLOGY

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It is evident that Hungary has a significant history in balneology due to its very rich mineral and thermal water resources.

## **Budapest**

Our capital, which was established in 1873 by the unification of three cities, possesses the most ancient bathing culture. As excavations testify, there were already living settlements on the present site of the city 4000 years ago. Its substrate is full of healing bath springs. As the springs come to the surface, they wash out many different minerals from volcanic stones.

According to tradition, it was already in the Stone Age that at the site of the Szent Gellért Hotel, near the Danube, the water surface was not freezing over. It was also easier to cross the Danube here. Excavations made in 1935 proved that illir-pannon peoples – most probably due to these favourable conditions – had been living there in large numbers. The Roman conquest found one of the tribes of illirs, the evariscus, at this place.

The Roman military camp was set up on the site of present-day Óbuda (Old Buda), its name, "Acquincum" deriving either from the five (water) springs: "aqua quinque", or from an even more ancient origin, from the Celtic "Ak-Ink," which means "rich in water". It appears there was a booming bathing culture in Roman times, as more than 10 military and civil baths were later excavated.

With the downfall of the Romans, Pest and Buda's bathing life began to decline. There are no significant remnants of it from the following centuries. The first settlements of the Hungarian conquerors in our capital were exactly in the vicinity of the Császár (Emperor) bath territory, acquiring the name of Felhéviz (Upper Thermal Baths).

In 1178 the order of the Saint John knights, which dealt in healing, settled at the site of the present Császár and Lukács baths. They established two friaries, and built a bath and a hospital nearby. The first description of "the nice warm Buda baths" originated in 1432, from the pen of an individual who travelled from the sacred land to French lands, passing through our country. There is much written historical evidence of the flowering Buda bathing life, from the time of King Mátyás, and later from the Turkish occupation following 1541.

The invasion and subsequent reign of the Turks over 150 years was as sad and damaging from the point of view of Hungary, as it was beneficial to bathing. Shortly after

conquering Buda, the Turks enlarged the baths and "held them in the utmost esteem". According to a 1573 description, "the baths were decorated with marble, consisting of several halls, and the pools were so deep that the water, which had a sulphurous smell, came up to the bathers' necks " and "the source near the Gürdes Éliás Hill (the present Szent Gellért Hill) is so abundant that it may run two mills constantly" and "the Veli Bég (blat) bath at the far end of Buda, the waters of which are only lukewarm, with springs just at the shooting, may drive even five mills".

A contemporary, more detailed description of the baths comes from the Turkish Evlia Cselebi. The travelogues of the British Medical Doctor Edward Brown, with his special "expert" definitions of Buda's baths are especially important.

When on 2 September 1682, Buda was liberated from the Turks, the military engineer knight Marsigli, who was born in Bologna, made sketches, drawings and descriptions of everything that was preserved after the siege, thus complementing the later photographic appearance. His work, collected as a concise omnibus edition, was published in 1726. It mentions 23 mosques and nine baths.

The 1721 appearance of Stocker's book, who was a medical doctor and linguist, may be considered as the first publication of balneology literature. "He renounces those actions that impede the using of the springs' treasures, as these treasures, without any human intervention, and coming from the will of God, flow from the earth free of charge, to cure the suffering of the ill." He published his book in order to draw attention to these treasures. In 1733 an abridged book was published, issued by the Buda Municipality in 800 copies, which may be considered the first conscious propaganda-issue of Buda with respect to the baths. In 1762 the King's decree disposed to analyse every mineral water and register them.

The Császár's (Emperor) bath, which was already outstanding in the Turkish era, became Buda's biggest and most beautiful baths. There are nine springs on its territory. In 1806 it was owned by István Marczibányi (1752-1810), who was a very rich landowner. He was a real patron and assigned the ownership to the Order of Mercy. In 1835 the bath became a multi-storey building, and at that time, on the site of the present-day healing yard, there were 33 rooms, 19 with stone baths, 7 with double pools, 3 Turkish, and one communal bath. In 1841 the Order of Mercy decided to reconstruct the bath and its surroundings placed in their care. The plans were entrusted to József Hild (1789-1867). The foot stone was placed in 1842, and the document stated the intention to build a well-known European bath, with an outstanding healing yard that will play a cultural role. The construction was finished within two years, establishing 85 bathing premises. The momentous construction work was built around the old Turkish bath, generating a large-scale archway.

**Lukács-bath.** The spring sources that were found just at the southern area of the Császár-bath, were brought to life in the second half of the XIX century. These were used to run the mills of the flour and gunpowder industry. In 1852 it was already being run as a modest bath with a few pools. In 1884 they built a glorious Bath Palace and Hotel, which was at that time the best bath construction in Budapest.

At the time of the Turkish occupation, the **Gellért-bath** was an open warm bath. Following re-occupation, the situation didn't change significantly, and it was considered as the bath for poor people. In 1783, after the first chemical analyses, the first hotel was built on this territory, with 21 rooms. In 1894 on this same site a large scale Thermal Hotel and Spa construction began.

Near the springs that were shooting exclusively from their own force, following the example of the artezian wells, they started to strike for hot water sources. In March 1867, in the northern part of the Margaret Island, from a 118 meter depth a 43,8°C warm water source was found. The gorgeous building, planned by Miklós Ybl, was inaugurated in May 1869. In Városliget (City Park) after 9 years of hard work, a 74°C spring, very rich in minerals, was found in 1878. The Széchenyi Spa in Városliget was built between 1909-1913. It was the biggest spa in Europe at that time. It was expanded with an open pool in 1927.

#### Hévíz

It lies at the Western part of Lake Balaton, 6 km from the town of Keszthely. Its water lie 109.39 meters above sea level, with a surface area of 47.5 thousand square meters, and it temperature does not fall below 24°C, even in the coolest period of the year. Its microclimate is ensured by the protective woods and lack of wind. People were already living on this territory 7500 years ago. The name Hévíz first appeared in a document in 1328. The first medical description originates from 1769. The owner of the land, an enlightened peer, made the first steps towards building the thermal bath. A British Medical Doctor-traveller visited Hévíz in April 1815, and made a detailed summary of the lake in his book, mentioning its ornamentation, the Nymphea Line, and also the white fairy rose. The first floor was built in 1870. In 1905 construction got very much underway, and a medicinal parlour was created. In 1907 the Hévíz Sanatorium and Thermal Bath was created, and this well-known institution is still functioning today.

# Harkány

According to legend, back in 1823 one of the local workers had a pain in his leg, and the hot water spring coming from the duct proved very beneficial, and soon he was completely rid of the pain. In 1828 a one-floor building was constructed, which is still at the disposal of the hospital. Unfortunately, sources at Harkány were characterised by constant changes in the location of the warm water springs, and a fluctuation in their quantity and quality. The solution was to drill for warm water sources, which started in 1866 under the leadership of Vilmos Zsigmond. They only had to reach the depth of 34.77 meters to get a 62.5°C warm, very sulphur-rich water.

# Eger

This territory is the richest in historical remnants among the thermal baths outside Budapest. According to archives, bishop Tamás Bakócz amended his "warm water building". Later on, mention is made of the water bath master and thermal house as well.

The city of Eger was under Turkish occupation for 91 years, following 1596, which did no harm to thermal bath culture there either. Evlia Cselebi wrote that in Eger there were not only warm water baths (ilidzsa's) but steam baths (hamam's) as well. A Castle County Medical Doctor, Ferenc Markot, dealt comprehensively with the bath and its medical utilization, and the Medical Hospital of Eger is today named after him.

#### **Balf**

The history of the bath can be traced back to Roman times. The bath, owned by the town of Sopron, was the first in Hungary, where in 1559 they asked a fee for using the thermal water. The building, constructed in 1772, still exists. The first analysis of the thermal water was made in 1847. Its main characteristic is its sulphuric content.

## Hajdúszoboszló

The 73°C warm and very strong thermal waters of the now famous spa town, was discovered by Ferenc Pávai Vajna in 1925. Among the dissolved substances in the Hajdúszoboszló water, the most important component is iodine. In the beginning, those who wished to be cured, bathed only in the drainage ditches. The first pool was built in 1928. Afterwards, the bath and its institutions developed rapidly. Nowadays more than 1.5 million local and foreign visitors visit the spa annually.

## Gyula

"The pearl of the southern plain". You can find here the only intact brick castle in Europe. It is a new type of thermal bath, as the 71°C alkaline water was found by drilling in 1957. Nowadays, there are 21 pools at the disposal of guests at the Castle spa.

#### Zalakaros

The spa, created in 1965, is now the 5th biggest thermal bath in Hungary. Its water surface of 5000 m<sup>2</sup> is at the disposal of guests in summer time. This thermal water is unique in Europe, as it contains natrium-chlorids and hydrogen-carbonates, which due to its iodine and bromide-ion content, and in addition a sulphur–ion material, may be classified among the sulphur group of thermal baths.

The water is slightly radioactive, and its metaboric acid content is quite high.

# About the Hungarian Balneological Association

The significance of Hungarian balneology is well illustrated by the historical fact that since 1850, students have gained private teacher qualifications in it at the capital's university. Up to the First World War, four graduates attained this qualification. As the subject choice of the four graduates was based on the qualifications of 418 private teachers, we can state that the prestige of water healing was quite low. Paradoxically, up to 1940, the leading representatives of the big medical departments continuously took an active part in the activity of the Balneological Society.

In 1878, in Berlin, the Health Society organised a Balneological Section. In 1884, in Hungary, a "Mineral Water Reactive Institute" was established, headed by a Professor-Chemist. The Budapest Royal Medical Association was created in 1837. The permanent Balneological Unit was put in place in 1882. Starting from the same year, they distributed questionnaires to assess the situation. Hungary was at that time three times as big a territory as it is nowadays, and possessed 287 thermal baths. Thirty years following this, we have to consider two thirds of the baths as being in foreign ownership.

Let us mention a few old Hungarian baths, as a taster. **Bártfa** was the most visited institution, now the Slovak Bardejov. There were 416 rooms and 69 bathrooms in 52 buildings. Fifteen springs had kitchen salt, and their iron content was sour-watery. Besides these waters being used for both healing and drinking, they were also applied for balsam pine leaf baths, cold-water treatment, iron-plate-baths and sheep-whey healing methods. **Lipik** bath is now to be found in Slovenia. Its water, containing iodine, was brought to the surface by the drilling of Vilmos Zsigmondy. Its warm iodine water spring, considered special on this continent, has afforded it a big reputation as a spa. **Szováta** thermal bath is in Transylvania, near the noteworthy Salty Lakes.

Upon the suggestion of the last president of the Balneological Committee, Professor-gynaecologist Tauffer, the first Balneological congress was organised in 1889. It had 168 participants, 149 medical doctors and 19 representatives from thermal baths. Within the framework of this congress, the National Society of Balneology (Hungarian Sacred Crown Countries Balneological Society) (OBE) was organised. Thus, the second oldest Balneological Society was established in Hungary. Later, it was generally known as just the Balneological Institute. Since its establishment at the congress, the organisation has regularly published a yearbook. It always starts with the basic principles. The most prominent publication of the Hungarian Sacred Crown Countries Balneological Society was the composition of a work about Hungarian Thermal Baths and Mineral Waters (Bp. 1892) by István Boleman, issued in 6000 copies in Hungarian, 3000 copies in German and 1000 copies in French, and distributed with great success.

The last yearbook appeared in 1915. After 1920 the words "Hungarian Saint Crown Countries" were dropped from the title, leaving just National Balneological Society, and generally only the two last words were used.

Between 7-14 of October 1929, the International Society of Medical Hydrology (ISMH) held its first international congress on thermal baths in Budapest. The volume containing the summary of presentations was published in French.

In 1931, at the 40th congress, the 80 year-old Professor Tauffer held a presentation entitled "A look back on Hungarian Balneology's past", the full content of which was published in the *Medical Weekly Journal*, established in 1857.

In 1936 new thermal bath constructions were everywhere in the country. This was the year when the book *Review of the Hungarian Thermal Baths*, *Holiday Resorts and Mineral Waters* was published.

In 1938, a long-lasting dream of the Association came true, with the agreement of the Healing and Holiday Resorts Committee, and "The Bath and Rheumatic Institute" was

established within the Pathological Institute of the Hungarian Academy of Sciences, headed by Professor Sándor Belák. The thermal baths of Budapest offered a number of beds for the curing of ill patients from the research institute.

It is worth summarising that, during the first 50 years, the institute was directed for 16 years by a gynaecologist, then for 14 years by a teacher pharmacologist, and for the following 20 years the president was once again a Professor-teacher pharmacologist.

The Hungarian Balneological Society, this well-established medical society, was unable to spread its wings as a social institution during the socialist years, and not even following that. At present the Hungarian Balneological Society has a wide scope of activity, and more than 300 experts are taking part in their congresses. It is of international importance that the president of the Association, Tamás Bender was in 2003 also elected as president of the International Society of Medical Hydrology and Climatology (ISMH), and at the same time Pál Géher became the main treasurer of this world organisation. Thus, it may be stated that Budapest has become the capital of Balneology. Besides, the Hungarian Balneological Research Foundation, due to its financial resources, is able to sponsor research.

### Literature

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