

## The ascent and decline of a great balneological resort: PUCIOASA

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### Abstract

**Introduction.** Pucioasa is one of the greater and sadly, almost forgotten balneological resort of Romania. Known since the 18<sup>th</sup> century, where it was discovered a record of this area on the Austrian map in 1791 with sulphurous streams, the healing waters of the "Pe Pucioasa" hill enters the therapeutic balneological circle when the first water analysis occurred – 1821-1828 by Dr. Trangot von Schobel. In 1878, Ion Ghica, a prominent figure in Romania at that time initiated the exploitation of 14 wells from the 30 known streams of sulphurous and ferruginous waters, thus obtaining enough healing mineral water for a capacity of 60 beds of the balneological establishment. Since 1841, the Resort developed, transformed into a Rehabilitation Clinic (1969) and the number of patients treated there increased from 20 in the beginning to 1000 patient per day. Many of the patients included foreign elite society members who came regularly to benefit from the waters' healing properties, both external and internal cures, setting Pucioasa on a high level of not only balneology treatment, but also of balneological tourism. **Materials and methods:** Studying local industrializations and water analysis, we concluded that there were many factors that contributed to the decline of this great and international renowned balneological resort. The first wrong step in this direction was made when building and extending de gypsum carrier, the peek being between 1970 and 1975, when the industrial forging process made the sulphurous streams to migrate, and the waters from the wells diminished in its sulphur and iron concentration. Another possible factor for the decline can be the modernisation of the medical world, development of anti-inflammatory drugs and modern medical equipment which reduced the need for the elite society to come a long distance for the balneological treatment. **Results:** Whichever of the reasons, the once prosperous Balneological Resort of Pucioasa fell into an unknown, unimpressive place, known and frequented only by the locals. The Rehabilitation Clinic still has 60 beds, which are occupied to the maximum each month, it still prospers on a local level, but lost its glory from almost a century ago. **Conclusions:** The Romanian general population and the government must take an interest to one of the many once prosperous balneological resorts in order to revive the national treasure of Romania which is balneology, which many of the developed European countries only wish that they can possess.

**Keywords:** *Balneary Resort, Pucioasa,*

### Introduction

Pucioasa is one of the old once renamed balneological resort of Romania and Europe with a rich history. A record of this area where healing waters were found out was in the 18<sup>th</sup> century in 1791 on an Austrian map with sulphurous streams (1).

The healing waters of the once calles "Pe Pucioasa" hill enters the therapeutic balneological circle when the first water analysis occurred – 1821-1828 by Dr. Trangot von Schobel. The first document which mentioned the usage in medicinal purpose of the Pucioasa waters was published in the 14<sup>th</sup> of May, 1832 by the Vornicia found from Launtru, describing the treatment of the Russian soldiers. In 1840, F. Siller described in his monography "Mineral waters of Valahia" the compound of the Pucioasa waters and the indications of the treatment with them. In 1878, Ion Ghica, a prominent figure in Romania at that time initiated the exploitation of 14 wells from the 30 known streams of sulphurous and ferruginous waters, thus obtaining enough healing mineral water for a capacity of 60 beds of balneological establishment (1).

Since 1841, the Resort developed, transformed into a Rehabilitation Clinic (1969) and the number of patients treated there increased from 20 in the beginning to 1000 patient per day. Since 1873, when the healing waters

were sent to the Vienna exposition, the Balneological Resort of Pucioasa started to be known world-wide (4). Thus, many of the patients included foreign elite society members who came regularly to benefit from the waters' healing properties, both external and internal cures, setting Pucioasa on a high level of not only balneology treatment, but also of balneological tourism. The largest expand of the Balneological Resort was in the socialist period, between 1962 and 1964, when the resort benefited from modern appliances and a modern hydro-physio-therapy pavilion and after that the use of the sulphurous water for internal cure (1).

The scientific ascend of the medical research team in Pucioasa conducted by M.D. Eduard Serban started in 1970, thus scientific papers and presentations were sustained at many Scientific Conventions in Europe and beyond the continent: Rheumatology Congress – Aix-Les-Bains France, Medical Congress – Barcelona, Spain, Medical Congress – Prague, old Czechoslovakia and the International Rheumatology Congress – Kyoto, Japan. In this way, the name of this Balneary-Climatological small town was known world-wide. There are records of very important people coming to Pucioasa for treatment through the yers such as King Carol the 1st with Queen

Elizabeth, Ministers Spiru Haret, Ion Ghica, Barbu Stefanescu-Delavrancea, writers Mihail Sadoveanu, Liviu Rebreanu and Ion Alexandru Bratescu-Voinesti, Academics such as C.I. Parhon, Miron Nicolescu and also artists such as the musician George Enescu and the painter Nicolae Grigorescu who painted the cinematographic theatre in Pucioasa, which unfortunately was demolished by the communist party (5)

#### **Materials and methods:**

The forming of the cold mineral sulphurous water from Pucioasa is directly linked to the sedimentary sulphurous rocks from the nearby hills. At the base of hills at the west side of Ialomita river the gypsum and calcic sulphate surfaces, together with the water combine with one-another to form the sulphurous streams. There is some other type of waters which contributes to the beneficial properties of the sulphurous waters, and those are the meteoric waters. These waters decompose the calcium sulphate, resulting free sulphur which in contact with air and water it transforms in sulphates which give the specific aspect and smell of the sulphurous waters (6). Studying local industrializations and water analysis, we concluded that there were many factors that contributed to the decline of this great and international renowned balneological resort. The first wrong step in this direction was made when building and extending the gypsum carrier, the peak being between 1970 and 1975, when the industrial forging process made the sulphurous streams to migrate, and the waters from the wells diminished in its Sulphur and Iron concentration. It started in the spring of the year 1940, when massive landslides started caused by the gypsum exploitation in one of the hills. Later in 1970-1975 the landslides intensified due to rainy years and the extension of the gypsum carrier in the valley where the Pucioasa streams were. The balneological interest of the area was eclipsed by the industrial interest of the communist party (8).

The genetic factors combined with the actual modification of the hillside determined massive changes in the morphologic dynamic of the landslides of Pucioasa. In 20 years of activity at the gypsum carrier, the damage was even greater. The exploitation extended in size and in depth from the normal topographic surface affecting many areas of the river Ialomita and also the underground streams, the land there becoming a swamp-like area (9).

Water analysis in 1916 showed that the mineral components of the stream water are reduced in comparison to later years analysis (1).

In addition to the spring losing some of their properties, the Pucioasa lake, which was the water source for the town, started clogging which resulted in a less capacity of retention up to 60% and up to 10 meters of thick sediments on the bottom of the lake (10).

#### **Results and Discussions:**

Today, the Balneary Resort is still functional, but with a far less capacity and less concentrated therapeutical waters. The capacity is now of 230 places, in a hotel near the Balneary Resort, which has modern appliances and offers a variety of rehabilitation treatments (11). The Pucioasa resort waters still prospers on a local level, but lost its glory from almost a century ago.

There is however good news. In the beginning of 2020 authorities started to implement a project which transports healthy water through Pucioasa and 5 towns near it, from the mountain side – Lake Bolboci from the Bucegi Mountains (12).

#### **Conclusions:**

Although local authorities do what they can to improve the state of the balneary situation in many towns in Romania, the government must take this seriously, to not condemn one of the national treasures of Romania.

Despite the fact that Romania has one third of all the balneary natural resources in Europe, many of the towns are struggling, not being enough funds to modernize them and the state of the roads not being fit to travel from distant places to benefit from their properties.

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Fig.1: 1791 Austria map which expose the waters from the area by Franz Johann Joseph von Reilly, Public domain, via Wikimedia Commons (2)



Fig. 6: Medical Doctors returning from the International Rheumatology Congress – Kyoto, Japan in 1974 – personal archive



Fig. 2: Image from an assembly in Pucioasa from the year 1880 - <https://mapio.net/pic/p-10833302/> (3)



Fig. 3: M.D. Phd. Eduard Serban speaking at the National Orthopaedics and Traumatology Congress – October 1975 – personal archive



Fig. 4: Balneary Sanatorium of Pucioasa in the 1970 is- personal archive



Fig. 5: M.D. Phd. Eduard Serban with the medical staff at the Balneary Sanatorium of Pucioasa in the 1970 is- personal archive

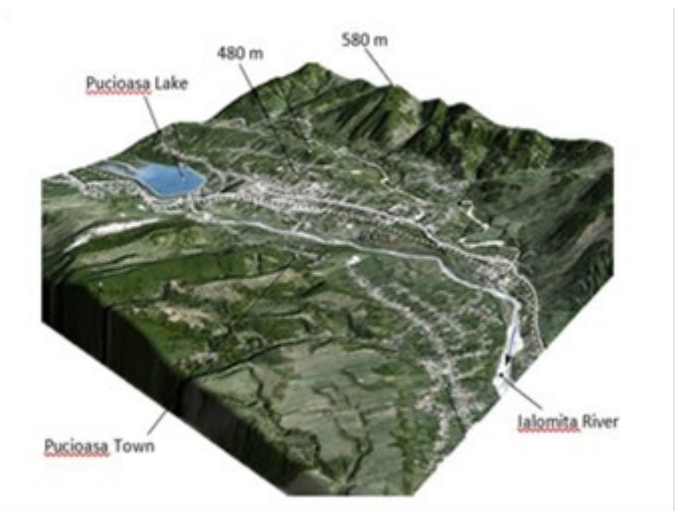


Fig. 7: 3D projection of Pucioasa, Romania. Topographic data SRTM from NASA and World Imagery. august 2011 - [https://ro.wikipedia.org/wiki/Fi%C8%99ier:Prelucre\\_3D\\_pentru\\_Pucioasa,\\_RomanRo.jpg](https://ro.wikipedia.org/wiki/Fi%C8%99ier:Prelucre_3D_pentru_Pucioasa,_RomanRo.jpg) (7)