CONSIDERATIONS ON THE MINERAL WATERS FROM COUNTY OF BRASOV, SPA AND RECOVERY

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ABSTRACT. - The essential element of the existence of life on earth is water. This ensures that the body needs nutrients and water while still eliminated from the body have become useless or toxic elements to it. In terms of mineral waters, it may be a true "oasis" of charity for Brasov county, since the particular climate that predisposes people to various diseases could be treated by exploiting these mineral waters. We believe therefore extremely important that a knowledge of typology mineral water in the county and their therapeutic characteristics, it would mean a possible spa development in the county of Brasov. Natural potential of any region must be known and properly valued above all.

Keywords: knowledge, origin, type, therapeutic potential, sustainable development.

INTRODUCTION

Mineral waters are those natural waters that contain more than 1g a dissolved solid substances at 1kg or containing CO2, Radium or rare substances in certain concentrations. Mineral waters are those that have a temperature over 20°C (international definition by Congress in Bad Nauheim 1912). According Vernescu (1988), mineral waters are natural waters, groundwater or surface water, with a mixture of salts, chemicals, gases, radioactive substances, whose concentration exceeds at least a minimum set of values for certain characteristics indicators, of which most important are: total mineralization ≥ 1,000 mg/l, CO2 (free or bound in dicarbonate) ≥ 1,000 mg/l, iron ≥ 10 mg, iodine ≥ 1 mg/l, sulfur (titratable) ≥ 1 mg/l, H2S ≥ 1 mg/l, arsenic ≥ 0.7 mg/l, radioactivity ≥ 80Um/l.

Mineral waters, depending on the particular physico-chemical, have been used successfully to treat diseases since ancient times, the curative powers of various minerals in nature proved healing really. Hippocrates, outlined in his famous treaty of medicine, the importance they have sun, water, sewage on the human body, their effects when a person comes into contact with these.

This paper aims to highlight the main types of mineral springs in the county, and how they are exploited within the framework of the local spas or national interest.

The paper is based on information collected from bibliographical sources exploitation, derived from field investigations conducted during 2008 - 2010: mapping, observations, discussions with local people and local authorities.

Although the Brasov county, is not a county of "spa resorts", but rather of the "climate", a county with mountain resorts, to protect us from the effects of

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stress or aggression city, or aggression of small screen, yet it has its own ”ex” or "present” resorts, the lower-right, but a great therapeutic importance.

1. ASPECTS OF ORIGIN OF MINERAL WATERS AND THEIR SPREAD IN THE BRAŞOV COUNTY

Over the years there have been plenty of controversy about the origin of mineral waters, which could be considered meteoric origin, juvenile, or mixed deposits. Their formation is explained by the existence of deep faults, the existence of mountains formed by volcanic eruptions, and the existence within the crust of oil, gas, coal and salt.

Therefore, in order to explain the presence of mineral waters in the county of Brasov, required references to the geological conditions in this area.

According to the Romanian Geographical Encyclopedia (1982), the county is mentioned four units of geological importance, three belonging to the Carpathian Mountains (crystalline-Mesozoic unit, flysh Carpathian Mountains and the volcanic area) and a Transylvanian Depression.

Crystalline-Mesozoic unit, composed of crystalline rocks, which formed a cover over Mesozoic sedimentary rocks (limestone, conglomerate, clay, marl, sandstone), is specific Fagaras mountains, Leaota, Persian, National Park, Bucegi, Piatra Mare and Postâvaru.

Cretaceous flysch unit (conglomerates, sandstones, marly-limestone, marl, clay, etc.) is found in massifs east of the Prahova Valley.

Structural unit volcanic eruptions formed from Neogene. Harghita Mountains are an extension of the Depression Homorode, by hills composed of andesite and basaltic rocks in the mountains NE Perșani. Inside the Carpathian arc is a part of the Brasov Depression consists of fluvial-lacustrine sedimentary formations, Quaternary upper Levantine.

Unit belonging to the Transylvanian Basin consists of sedimentary formations (sand, gravel, marl, clays, conglomerates, tuffs) of Miocene fluvial formations plus Quaternary age. They are disposed over a crystalline foundation, at over 1000 m deep.

Existence in the basement of Brasov county of several types of mineral waters, is thus determined by different types of rocks present here: lava (mainly basalt), sedimentary, metal mineralization. These waters are located within the perimeter of towns such as Zizin, Persani, Grid, Venetia de Jos, Rupea, Homorod Rodbav. To these may be added under mesothermal springs and the Magura Codlei Hoghiz (karst spring). (Source: Brasov Prefecture).

2. BRASOV COUNTY SPAS

Brasov County, has a potential spa characterized by diversity of potential natural healing factors, their therapeutic value and large reserves.
Spa touring resources are therefore crucial components of the spa offer in the county by quantitative and qualitative characteristics.

2.1. Homorod Resort

Homorod City is situated in a picturesque area of 35 km from Sighisoara and 65 km from Brasov, where you can reach the national road DN 13 Brasov-Targu Mures. In this area, at a distance of 1km from the village center there has been a spa resort of local interest Homorod spa at an altitude of 460m.

Although no longer in operation since 1975, some locals still remember it. It was made by Johann Weiss, a Saxon Homorod 1900. People remember that the place attracts thousands of tourists annually. "Patients came on crutches and left on their feet, so good is mud in these parts."

Fig. 1. Harta localităţilor cu ape minerale din judeţul Braşov

Fig. 2. Homorod Resort - today

Fig. 3. Basin with sulfured water.
There were 78 valve treatment, sulfur pools’ recalls John Thomas, a Homorodean who knows the history of the place.

Weiss airlock heirs claimed the land. “The land became the property of Emilia Binder, in Bucharest, a survivor of the owner. She, in turn, sold to an Italian investor. Now it’s private property” the mayor told us (June 2009).

Mineral water and mud from the mud volcanoes (Fig. 3) with a high content of sulfur have been used with great success in the treatment of rheumatic diseases, dermatological diseases, endocrine disorders, neurasthenia, gall and liver disorders, digestive disorders. Curative qualities of the sulfur water and mud are recognized both at home and abroad, as evidenced by specialists from the interwar period.

2.2. Rodbav Resort

Rodbav spa resort, situated in the valley Rodbav at 480m altitude, is surrounded by deciduous forests (Fig. 4).

The benefits of the thermal waters of Rodbav enjoyed both villagers and people from around the country. Throughout the ages, the resort has expanded by building pavilions with rooms for bathrooms, swimming pools, etc. Once upon a time, there was a hotel, villas and apartments in the village and even a restaurant.

Fig. 4. Rodbav Resort – today

Carbonated water sodium chloride effectively treats: enterocolitis, ulcers, gout, diabetes and other, and external we can remember, locomotor disorders, rheumatic, degenerative, gynecological, cardiovascular (hypertension), endocrine.

Treatment can be done with good results in the period June 5 to October 15, in a temperate climate, depression.

2.3. Perșani Resort

Perșani Baths are located in the European road E68 Perșani village about 25 km from Brasov. The existence of these baths date back over 200 years, being mentioned documentary since Empress Maria Theresa, as the property of village communities, but their period of “peak” was in especially after the Second World War.

Fig.5. Perșani Resort
Here is a basic treatment basins with warm salt water, with mud, a medical office.

The sludge was analyzed at the University of Neuchâtel, in Switzerland and found that the properties of rheumatic have better curative effects than Techirghiol.

After fire of 1950, the base has not been restored (archive Gazette Express 19/07/2006). Offer resort is in represented by mineral springs with bicarbonate-sodium-chloride, slightly ferruginous (Fig. 5), hypertonic, atermale, silt, peat (Fig. 6).

![Perșani – Peat mud](image)

As regards external cure these waters are shown in musculoskeletal disorders, peripheral nervous system, chronic gynecological diseases, debility, limfatism and season of treatment can be between 1 June and 1 October.

### 2.4. Zizin Resort

Zizin spa resort is situated at the foot of Ciucăș and Piatra Mare, a wooded area, crossed the river with the same name. Zizin mineral waters are known and used since 1773 both locally as therapeutic substances, as well as the mineral water bottling.

The first description of the sources here was made by I. Wagner (1773), and the first chemical analysis of Belteky in 1818 (Balasz Orban).

Zizin was declared on 4 March 1927, “Balneomineral small institution” and had one of the most popular resorts in the interwar period. The resort was recognized in Transilvanya on the fourth place after Vâlcele (Elopatak), Borsec and Tușnad. Moreover, as he wrote in one of his works, Orban Balazs Hungarian researcher, their effect healing and their beauty, bathing the Zizin resort rivaled those of Vary Karlovic. Hungarian researcher traveled throughout Transylvania, at the beginning of last century, talking with people and describing wonderful places. He gathered notes on 18 books of memoirs. They found their place and Zizin which Orban Balazs describes it in detail focusing on the miraculous mineral water springs here.

By the beginning of last century, Zizin have three mineral water springs, which, for their wealth, people were baptized with the name of kings. This spring was Ferdinand, who had the highest rate, Francis, who “comes from the ground with bubbles”, and finally, Lajos.

“Few of the springs in Europe can compare with them” Orban Balazs wrote that evidence and then brings about the chemical composition of water each spring, “based on studies of key scientists, namely Dr. Schnell and Dr. Greissing” ("Museum Box Memories" - Zizin).
Ferdinand spring water (Fig. 7), was recommended for treating respiratory diseases, and the spring Lajos (Ludovic) to treat stomach and bowel diseases, gynecological diseases and disorders of the nervous system (as obtained for studies of Schnell, Greissing).

Today, mineral water springs are either closed or captured by the factory, are contaminated by droppings that residents who have septic tanks - and there are plenty straight to Zizin. Only three sources are out of reach of people who carry around water in all villages, with tens of Bottles. Around their facilities were destroyed, and the mud around the springs is full of traces of hoofs, a sign that animals in the village all their thirst there.

Fig. 7. Ferdinand spring

2.5. Veneția de Jos Resort
Former resort is located on the Olt Valley in the foothills of the Persani at 450m altitude, the area belonging to the village stream. Water-sodium chloride-iodo-bromide and ferric sludge are shown here for the same conditions as those of Rodbav. The nature is very picturesque. Sources confluence in an area where there is a mineral mud is often used by locals for treatment of bone pain. Baths Veneția de Jos were arranged during the Austro-Hungarian Empire around 1890. Near the river and the treatment is composed of nine cabins with 11 baths. Unfortunately, these baths administered by the village mayor of Veneția, as the Homorod or Rupea were abandoned.

2.6. Bran Resort
Bran is a climate resort, situated at the foot of the Bucegi mountains 28 km from Brasov, at an altitude of 750-800m. The climate is shelter, away from drafts. Here is a fugitive mineral spring with water-sodium chloride, sulfur, indicated mild anemia, respiratorii disease, convalescence, rest cures. The treatment period can be between 15 July and 15 September.

3. CONCLUSIONS
By analyzing and summarizing mineral localities of the county, it follows that this county has important therapeutic potential, but unfortunately not capitalized or even totally unknown to those who have this potential. Bath Case of the Persani is eloquent, and at Zizin although there is an extensive project planning area, mineral water recovery issue was not taken into account, motivating the fact that being close to the surface crust.

By far, however, the situation is incomprehensible Homorod. The therapeutic potential and geological reserve “mud volcanoes” are left to decay, although tourists are put back into service would be a “breath of oxygen” for sustainable development in the locality.
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