

A CITIZEN OF CRAIOVA, THE GEOLOGIST LUDOVIC MRAZEC

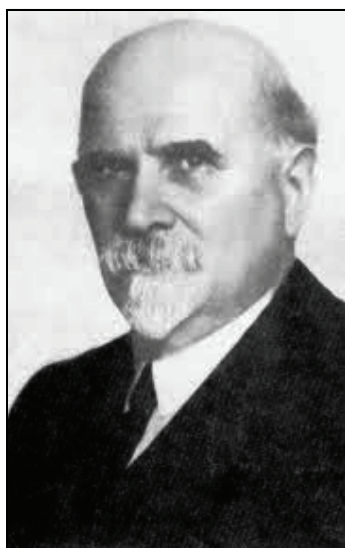
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Abstract. Born in 1867 in Craiova, with basic studies at Carol I High School in same town, Ludovic Mrazec was the first director of the Romanian Geological Institute, professor at the University of Bucharest, the first president of the Romanian Society of Geology, academician and president of the Romanian Academy. Ludovic Mrazec identified two distinct groups in the crystalline schists of the South Carpathians, with different metamorphic history the diapiric folds. He authored over one hundred scientific papers, ten of them at least regarding the geology of Oltenia.

Keywords: Ludovic Mrazec, geologist, Oltenia, scientific works.

Rezumat. Un cetățean al Craiovei, geologul Ludovic Mrazec. Născut în 1867 la Craiova, cu studii la Liceul Carol I din același oraș, Ludovic Mrazec a fost primul director al Institutului Geologic al României, profesor la Universitatea din București, primul președinte al Societății Geologice a României, academician și președinte al Academiei Române. Prof. Ludovic Mrazec a identificat în Carpații Meridionali două grupuri distincte de șisturi cristaline, cu istorie metamorfică diferită și a descoperit fenomenul de diapirism, elaborând teoria cutelor diapire. Este autorul a peste o sută de lucrări științifice publicate, din care cel puțin zece privesc geologia Olteniei.

Cuvinte cheie: Ludovic Mrazec, geolog, Oltenia, lucrări științifice.



The great scholar Ludovic Mrazec was born in Craiova on July 17, 1867, in a family of Czech-Austrian ethnic origin. His father, Ludovic Severin Francisc Mrazek, born in the town Ober Cerekwe - today Horní Cerekvev, in southern Bohemia (Czech Republic), was a pharmacist, graduate of the Vienna University, who settled in Romania in 1861. Ludovic Mrazec jr. followed the primary school, then Carol I High School in Craiova.

Passionate since childhood of natural sciences, he devoted most of his life to the study of geology. But following his father's wish, he attended the Faculty of Pharmacy in Bucharest, taking the bachelor's degree in 1889. Then he went to Geneva to get the a postgraduate diploma in physico-natural sciences in 1891, the doctor's degree in physico-natural sciences with the thesis: "La protogine du Mont-Blanc et les roches éruptives qui l'accompagnent" in 1892, and doctor of science's degree in 1893.

In the same year, he came back home and was appointed assistant at the Geology Laboratory of the Faculty of Sciences in Bucharest. On December 1, 1894, he was appointed professor of Crystallography, Mineralogy and Petrography at the University of Bucharest, being the head of the Department of Mineralogy in the period 1894-1937. He taught the course of "Crystallography, Mineralogy and Petrography" at the Faculty of Natural Sciences at the University of Bucharest, the

Faculty of Pharmacy and the Faculty of Industrial Chemistry of the Polytechnic Institute.

Together with other Romanian geologist, Ludovic Mrazec founded the Geological Institute of Romania in 1906, the director of which was from 1906 to 1928. In 1907, he was elected president of the International Congress of Oil.

He was corresponding member (1901), member (1905) and president of the Romanian Academy (1932-1935), founding member and first president of the Romanian Geological Society in 1930, where he worked until the last year of his life. In 1927, Mrazec served as Minister of Trade and Industry.

He was member of the Imperial Society of Naturalists in Moscow, the Academy of Sciences and Letters in Cracow, the Society of Mineralogy and Geology in Prague, the Geological Society of Belgium, the International Commission of Oil in London, the Academy of Sciences of the Institute of France and Doctor honoris causa of the University of Strasbourg.

The research approached by the professor Mrazec cover a wide spectrum: mineralogy, metamorphic and magmatic petrology, oil and salt geology, structural geology, cartography and sedimentary petrography.

In a paper from 1904, Mrazec divided the metamorphic rocks of the South Carpathians in two distinct groups, i.e. the group I, of high-grade metamorphism, overlapping the group II, of low-grade metamorphism. Together with I. Popescu-Voitești, he extended the theory of nappe structure in the East Carpathians, subsequently confirmed by drillings. For these reasons, he is one of the greatest Romanian tectonicians.

Ludovic Mrazec was the first Romanian geologist who supported the organic origin of oil and highlighted the role of the bituminization processes in nature. At the International Exhibition in Paris (1900), the scientist presented the first map of the salt formations in Romania. He firstly discovered the phenomenon of diapirism developing the diapire theory and related folding (Mrazek's fold), which was exposed at the World Petroleum Congress in 1907. This theory

opened new prospects in the exploration and exploitation of oil and gas, and strongly influenced the entire oilfield geological activity.

Ludovic Mrazec authored over one hundred papers, also giving conferences on a lot of topics concerning the geology and mining in Romania: oil, gold mines, flysch classification, sulfur deposits, origin of salty lakes, loess origin, etc.

He passed away on June 9, 1944 in Bucharest.

The main works regarding the geology of Oltenia:

- *Contribuțiune la studiul petrografic al rocilor din zona centrală a Carpaților de sud, și anume: din județele Mehedinți, Gorjiu și Muscel.* An. Muz. Geol. Paleont., vol.I, București, 1895.
- *Note sur la géologie de la partie sud du haut plateau de Mehedinți.* Bull. Soc. Sci. Phys., vol. V/12. București, 1896.
- *Essai d'une classification des roches cristallines de la zone centrale des Carpathes Roumaines.* Arh. Soc. Sci. Phys. Nat., tome III. Genève, 1897.
- *Contribution à l'étude des roches de la zone centrale des Carpathes méridionales. II. Sur les gneiss à cordiérite des Montagnes du Lotru, III. La wehrhlite du Mont Ursu.* (with G. Munteanu-Murgoci). Bull. Soc. Sci., vol.VI/3, București, 1897.
- *Dare de seamă asupra cercetărilor geologice din vara 1897. III. Munții Lotrului.* Separatum, Tip. T. Basilescu, 1898. (with G. Munteanu-Murgoci).
- *Dare de seamă asupra cercetărilor geologice din 1897. I. Partea de E a munților Vulcan.* Separatum, Tip. T. Basilescu, 1898.
- *Sur les schistes cristallins des Carpathes méridionales (Versant roumain).* Lucrările C.R. IX-e Congrès Intern. Géol. Wien, 1904.
- *Asupra formațiunii de Schela.* Inst. Geol. D.d.S. IV, București, 1913.
- *Marnele cu globigerine de la Gura Văii.* An. Inst. Geol. Rom., vol. I. București, 1918.
- *Marnele cu Globigerine tortoniene la Gura Văii (Mehedinți).* D.S. Inst. Geol. Rom., vol. I. București, 1923.

I presented the life and work of this great scientist not only because, as geologist I knew him, if not the man, his work, but also because as inhabitant of Oltenia and of Craiova I am glad that Ludovic Mrazec had a constant concern for deciphering the geology of Oltenia.

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Received: March 29, 2016
Accepted: June 30, 2016