## J. W. GOETHE – GEOLOGIST OF THE KARLSBAD REGION



The famous German poet Johann Wolfgang Goethe (1749 - 1832) was a man of an outstanding interest for the Nature and for the Earth sciences. In the Czech geological dictionary he has his own biography remembering his frequent visits to the West Bohemian health resorts Karlovy Vary (Carlsbad), Františkovy Lázně (Franzensbad), Mariánské Lázně (Marienbad) and Teplice. In this region he was focusing his attention to the geological history, petrography and mineralogy, genesis of mineral water springs etc. Some of his studies were published. His geological points of view were not always correct (as seen from a recent knowledge) but his efforts to deepen studies of our territory cannot be forgotten.

We have to remember also his scientific contacts and rich correspondence with the count Kaspar Sternberg (1761 1838) –founder of the (nowadays) National Museum in Prague.

The Czech composer Václav Jan Tomášek (1774 - 1850) describing his visit paid to Goethe in Cheb (Eger) in August 1822 remembers also mineralogical interest of the poet and his excursions to the region for collecting local minerals.

In the Wikipedia (<u>http://en.wikipedia.org/wiki/Johann Wolfgang von Goethe</u>) a special part is describing the scientific work of Goethe. Following remarks can be of interest: Although his literary work has attracted the greatest amount of interest, Goethe was also keenly involved in studies of natural science.<sup>[24]</sup> He wrote several works on morphology, and colour theory. Goethe also had the largest private collection of minerals in all of Europe. By the time of his death, in order to gain a comprehensive view in geology, he

had collected 17,800 rock samples. - Goethe was the first to systematically study the physiological effects of colour. Goethe outlines his method in the essay "The experiment as mediator between subject and object"(1772).<sup>[351]</sup> In the Kurschner edition of Goethe's works, the science editor, Rudolf Steiner, presents Goethe's approach to science as phenomenological.



*Light spectrum, from Theory of Colours. Goethe observed that with a prism, colour arises at light-dark edges, and the spectrum occurs where these coloured edges overlap.* 

Novalis, himself a geologist and mining engineer, expressed the opinion that Goethe was the first physicist of his time and 'epoch-making in the history of physics', writing that Goethe's studies of light, of the metamorphosis of plants and of insects were indications and proofs 'that the perfect educational lecture belongs in the artist's sphere of work'.