UKRAINIAN SCIENTISTS AND THE BEGINNING OF THE NATIVE METEORITICS

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ABSTRACT. The oldest known meteorite on the Ukraine territory fallen in 1787y. played essential part on the first stage of the native meteoritics development. The Kharkov university professors were ones of the first who investigated this meteorite in the beginning of XIX c. Prof. A.I.Stoikovich was the first author of the fundamental book on the aerolithes problem in Russia. P.Ya.Gamaleya (from Poltava province) was the first in Russia who believed the asteroid nature for the aerolithes and the shooting stars.

Key words: meteoritics, asteroid, minor planet , the history of natural science, personalia - Chladni, Stoikovich, Gamaleya.

The Chladni's first fundamental united cosmic theory of the aerolithes, bolides and strange pure iron blocks that was founded in the different regions of the Earth to this time (1794) has excited the first serious interest to this semi-legendary subject. The famous meteoritic stone rain that took place near Aigle in Normandia (France) at 1803 year proved the reality of the phenomenon itself. But its origin was enigmatic still during a third of the XIX c. (Eremeeva, 1982). In this time two hypothesis were competing with each other: (1) the aerolithes are the bombs from the Moon volcanoes (Olbers, 1795; Laplace, 1802) and (2) they are a product of our atmosphere (Isarn, 1803).

The first papers in Russia discussed this subject appeared at the beginning of XIX c. as a few short articles translated and original in some popular and scientific journals in Moscow, Kaluga and St.Petersburg.

On this stage of the native meteoritics development the meteorite fallen in October 1 1787 y. near Kharkov (the oldest of the ones was known in the Ukraine territory -"Jigailovka" (Kulik, 1935)) played the essential part for the process of beginning of this new science in Russia . One of its fragments was received in St.Petersburg academy of sciences in 1804 y. and researched first by acad. T.Lowitz which discovered in it the new chemical sign of meteoritic matter - the availability of chrom.

The other fragment of this meteorite was received soon after by the professor (last - the rector) of the Kharkov university the physicist A.I.Stoikovich. He first described this aerolith and its history in detail and described any other known aerolithes also in his papers (Stoikovich, 1807a) and in his fundamental, the first in Russia book about aerolithes (Stoikovich, 1807b). E.Klinger, adjunct of the Kharkov university, investigated of the mineralogical composition and the structure of this meteorite, and the professors of the same university L.Schnaubert and I.E.F.Giese investigated its chemical composition (Stoikovich, 1809).

Thanks to Stoikovich papers and his book essentially the cosmic Chladni's theory became first known in Russia. But Stoikovich himself has not understood these new ideas and believed that aerolithes were a product by the Earth atmosphere similar the hail.

The other ukraine scientist P.Ya.Gamaleya (1766 - 1817) had more progressive point of view on this subject. He was the astronomer and the seaman (the captain-commandor [-p]) and the professor of the St.Petersburg Nautical academy (Zapiski..., 1848). In his paper (Gamaleya, 1809) he also discussed the surprising similar composition and structure of the all known in that time aerolithes and admitted their cosmic nature as very small planets that are meeting on the our Earth way sometimes. Gamaleya believed the chief argument in this idea's favour - the fact of discovery of new heavenly bodies - the minor planets Cerera, Pallada and Yunona (1801 -1804). Gamaleya was the first in Russia who admitted the similar nature of the shooting stars.

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