

NOTE ON THE RECORD OF AN UNKNOWN METEORITE FALL NEAR THE ORADEA FORTRESS (TRANSYLVANIA, ROMANIA) AT THE END OF THE 17TH CENTURY

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During the preparatives for a new siege of the Oradea fortress by the Austrian imperial army, an astronomical event was noticed by the upper-rank officers, who soon after that officially reported it to the emperor Leopold II.

At the end of a long report on the current evolution of the war from Transylvania and on the requirements of supplies and equipment forwarded by general Veterani to the emperor on 20th April, 1692, a brief version of a note by general Auersperg on a meteorite fall near Oradea was also included. Count Auersperg was in that time the leader of the blockade against the fortress, still occupied by the Turks. There he mentioned about a „fire ball” that was noticed in the skies on April 8th around 10 p.m., that went beyond the blockade, fortress and the army forefront, and finally landed in the woods in the neighborhood (...“Übrigens hat der Graff von Auersperg berichtet, dass den 8th dieses nachts um 10 Uhr bei Waradein ein feurige Kugel an dem Himmel gesehen worde, welche sodann über unsere Schantz, die Festung und unsere Feldwachte in dem aldortige Wald gefallen seye”...)¹.

Attached to the report there is a sketch showing the trajectory of the meteorite until the impact with the soil where, according to the drawing it was fragmented into several pieces. The meteorite in flames occurred from the clouds, its trajectory being marked by „a fire tail” consisting of a multi-colored bright path. By comparing the sketch with a military map realized in May 1692, it can be concluded that the direction of the fall was probably NW-SE. Presumably Auersperg and his officers did the sketch.

The size of the meteorite was compared to that of a 200 kg bomb. It may be assumed that the original size was larger, keeping into account the distance from where it was observed and the fact that the meteorite could not be reconstructed from its pieces after the landing.

One can expect that supplementary data could be found in the military archives from Austria. Little chance exists to find geological evidence in the field, the place of the fall been now probably within the area covered by the present-day town of Oradea. Our note is also intended to be a signal for museums in the region that posses meteorite collections, where in a fortunate case, fragments of this meteorite could be identified.

The importance of this information consists of the rarity and value of a meteoritic fall itself, but more than that, it could be the first mention of this type on the present-day territory of Romania. There are two reference papers concerning the meteorite falls in the Romanian territory: STANCIU & STOICOVICI (1943) give, besides the list of falls known at that time, a detailed description on the features recorded by eye-witnesses during the fall of six meteorites

(Mădăraș, Cacova, Ohaba, Jădani, Mociu, Șopot) as well as petrographical and geochemical data. MAXIM (1968) adds to the previous list of falls four additional ones: Buzău, Târگوviște, Târgu-Jiu – Cămpina, Tăuți) and indicates the museums and other collections that host fragments of some of these meteorites.

Until now, the oldest record of a meteorite fall in Romania concerns the meteorite from Buzău (Magnus meteoriticus Bozaianus), January 1714, that was mentioned by S. Köleséri in his work “Auraria Romano-Dacica” but of which no sample was preserved (MAXIM, 1968). The Catalogue of Meteorites (GRAHAM *et al.*, 1985) indicates a meteorite fall near Oradea, at Tăuți, but the date of the fall is 1937 (p. 343); Oradea refers in that case to the former district at the time of the fall, the present-day administrative affiliation of Tăuți village being Arad district.

If the information presented above is confirmed, the fall from Oradea (1692) would represent the 11th and at the same time the oldest record on meteorite falls in Romania.

References

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- STANCIU, V. & STOICOVICI, E. (1943). Revista Muzeului Mineralogic-Geologic Univ. Cluj, 7/1-2: 121-152.

¹ The National Archives, Bucharest (microfilms)