

Field Survey of Spherules and the Other Microminerals from the Cornești (Jădani, Mezőzsadány) Meteorite Fall are (Timis County, Romania)

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According to the Transylvanian mineralogist Joseph Krenner's description, on the 31st March 1875 at approximately 3-4 p.m., in the intra - village area of the Cornești village (now located in Timis county, Romania) in the time of the phenomenon it was named Jădani (Romanian language) or Mezőzsadány (Hungarian language), a meteorite fall occurred. It was seen by several villagers. This small village is located very close to the Timișoara city, two km far from the Timișoara-Arad main road.

We organised a field trip to this area during the summer of 1999, in the period of the total sun eclipse, which occurred on the 11th August. This area was located in the totality stripe of the eclipse.

During this field campaign, we succeeded interviewing a few villagers who were direct descendents of the inhabitants who had been living in the village 125 years ago. It is worth mentioning that even the actual house numbers are identical with those of the meteorite fall period. It means that the village have not been changed much since then. Unfortunately, the number of the inhabitants showed a decreasing tendency, but we could still find a clever person, Mr. Iacob who was able to show us the houses or the pieces of ground where the houses of the former eye-witness once existed.

The seven samples were mostly collected from these sites: Bireiescu Măriuța, Pleșu Iuliu, Lazăr Ardelean, Paul Sârbovan, Spătaru Constantin and Petru, Spătaru Florea and Achim Ghiuro. We carried out the hydrogravimetric concentration of the samples on the collection sites, obtaining concentrates which were very poor in heavy minerals.

The meteorite fragments presented the following decreasing order of then weights: 63,1g; 37,6g; 22,85g; 11,56g; 5,56g and 3,55g respectively. So, the global weight was 144,12g.

We tried to establish the complete micromineralogical spectrum of the samples, using complex and accurate analyses with JEOL, EDAX, a.s.o.

The major aim of the research consisted in the identification of the particles of cosmic origin, especially of the magnetic spherules and tektites.