WESTON: THE RECOVERY AND DISPERSION OF A HISTORICALLY SIGNIFICANT METEORITE FALL

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Introduction: Weston, the first scientifically documented meteorite fall in the New World, occurred in the decade in which most scientists finally agreed that stones do fall from the sky. It fell during morning astronomical twilight on 14 December 1807. Seven fragments were recovered from an elliptical strewn field in central Fairfield County, Connecticut, USA. This 12 km by 4 km ellipse is orientated north-south and centered on N 41° 16' and W 73° 16' [1].

The first fragments were recovered within about half an hour of the fall and the last of the seven within three weeks. The consensus of modern literature is that 150 kg of the meteorite was recovered. But meteoritic scholars from Wülfing [2] to Koblitz [3] only account for about 20 kg. In the first edition of the *Catalogue of meteorites* G. T. Prior [4] added a note for Weston which has been included in all subsequent editions of the work: "Comparatively little has been preserved". Reasons for this apparent mass discrepancy will be discussed.

In an age when the fastest communication and transportation were limited to horse speed it seems remarkable how rapidly the mass of Weston was dispersed around the world. Unfortunately this took place without good record keeping so the history of only one Weston fragment is easily traced from recovery to today. Ongoing research now indicates two more fragments may have a completely known history.

Discussion: Two teams investigated the fall sites of Weston. Dr. Isaac Bronson and Rev. Dr. Horace Holley conducted the first investigation on December 19, 1807. The better-known on-site expedition to the area was performed by Yale College professors Benjamin Silliman and James Kingsley starting two days later. A careful reading of both the reports generated from these expeditions [5, 6] is necessary to understand the recovery of Weston. Together these reports allow a recovery chronology to be developed that includes when, where, and by whom the fragments were recovered. The reports also describe the fall circumstances and give mass estimates for each fragment. This valuable information shows why so little of the meteorite can be accounted for today.

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