

The Wethersfield Meteorite

A Famous Object from Outer Space
Is Shown at the Peabody Museum

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Earlier this year visitors to the Peabody Museum were able to see the world-famous Wethersfield meteorite, which had come to earth just a few months before in November 1982.

Although some hundreds of meteorites fall to the earth each year, only five to ten of them are immediately recovered. Any witnessed meteorite fall, anywhere, is a noteworthy event, but this one was extraordinary for two reasons: it was the second meteorite to fall in the town of Wethersfield, Connecticut, in the incredibly short span of 11 years, and it crashed through the roof of a house without injuring the occupants, as the first Wethersfield meteorite had also done. Such a coincidence of time and place is a remarkable occurrence.

For three or four seconds at about 9:17 p.m. on November 8, 1982, joggers, dog-walkers, motorists, anyone who was looking at the sky and facing in the right direction—towards central Connecticut—in an area that included southern New Hampshire and Vermont, Massachusetts, New York State, and New Jersey, as well as Connecticut, caught a breathtaking and wonderful sight: a ball of fire streaking across the sky. To some it appeared greenish with a long yellow tail; to others, orange-yellow or white. Many saw it seem to break into several pieces. Observers in towns near Wethersfield saw the entire sky lit up as if by lightning, and, after the fireball disappeared, they heard loud reports like gunshots.

Wanda and Robert Donahue were watching *M*A*S*H* on television in the family room of their house on Church Street in Wethersfield, when they heard a loud, muffled thud that sounded as though a truck had come through the front door. The Donahues rushed to the front of the house and were stunned to find a hole in the living-room ceiling, a litter of plaster debris all over the

furniture and the rug, and the air filled with what they thought was smoke. A quick check upstairs showed a second hole in the roof. Could it have been a bomb?

At 9:18 Mr. Donahue telephoned the Wethersfield police to report an explosion. The police dispatcher relayed the call to the Wethersfield Volunteer Fire Department and firemen with appropriate emergency gear were at the house within minutes. After a short period of general head-scratching and puzzlement, one of the firemen spotted a grapefruit-sized rock underneath the table in the dining room, and correctly deduced that it was a meteorite and that it had caused all the damage. The "smoke" had really been plaster dust from the ceiling.

Local newspapers and television stations were monitoring the police telephone line and were quick to pick up the story. The news spread at once. Within a day or two, newspapers around the world had published front-page accounts of the phenomenon.

The meteorite picked the right house to drop in on if it was looking for intellectually perceptive earthlings. The Donahues immediately allowed it to be borrowed for important tests which needed to be done as soon as possible—within days. They permitted scientists at several institutions to work on some small fragments that had broken off the meteorite in order to extract as much information about it as could be done with present-day scientific techniques. Professor John Longhi, Faculty Affiliate



The main mass of the Wethersfield (1982) meteorite and some of the pieces that broke off it inside the Donahues' house. Meteorite type: L6 chondrite. Weight: approximately six pounds.

in the Meteorite Division of the Museum, studied its chemical composition and mineral structure using the electron microprobe in the Yale Department of Geology and Geophysics. Best of all, the Donahues generously offered to lend their meteorite to the Peabody Museum for display.

The resulting exhibit may well have been unique in museum history, because in addition to the meteorite itself, the Donahues lent us pieces of their roof and living-room ceiling containing the actual holes made by the meteorite when it crashed into the house at a speed of perhaps 300 miles per hour. With admirable foresight, they had instructed repairmen to cut carefully around the holes in order to preserve them. It took two men half a day to saw through the steel mesh and plaster of the wire lath ceiling.

Meteorites rarely hit houses, and it is doubtful whether any other museum has ever displayed such striking evidence of meteoritic impact. The exhibit case contained the roof and ceiling sections, oriented as they had been on the house. The holes were aligned and a dramatic red arrow, piercing both of them, pointed to the celebrated meteorite below. Also included in the exhibit was an enormous blowup of a photograph taken by Dan Haar of the *Hartford Courant* just a few minutes after the meteorite was discovered, showing the mess in the Donahues' living room and Assistant Fire Marshal John J. McAuliffe contemplating the very hole in the ceiling that could be seen in the adjacent case.

Karl K. Turekian, Henry Barnard Davis Professor of Geology and Geophysics and Curator of Meteorites in the Peabody Museum, was scientific advisor for the exhibit. He was assisted by Barbara L. Narendra, Curatorial Aide in Meteorites and Museum Archivist. Louise Lauretano DeMars designed the exhibit, which was on view from February 26 to April 27, 1983.

The Meteorite Display at the Peabody Museum

In addition to the regular meteorite exhibit which shows America's first documented meteorite fall—Weston, Connecticut, 1807—three new meteorite displays are still on view. They are:

1) "Connecticut Meteorites," short descriptions of the four known Connecticut meteorites with a map showing where they fell;

2) "How to Recognize a Meteorite," which compares real meteorites with objects frequently mistaken for them;

3) "How Meteorites Weather," a demonstration of progressive visual changes in meteorites caused by long exposure to the elements. Ordinary stone and iron meteorites found on or in the ground should resemble the ones in this exhibit case.



The Wethersfield Meteorite Exhibit. The meteorite itself appears beneath the arrow (right).