

BELLS

The Man, the Meteorite, and the Hurricane

Fell September 9, 1961

C2-Ungrouped Carbonaceous Chondrite

TKW: 283 grams

Grayson County, Texas

Seven stones

During a short period in 1961, Fort Worth, Texas, the hometown of long time meteorite collector Oscar Monnig, appeared to be the target of extraterrestrial bombardment as two witnessed meteorite falls occurred within 200 miles of the city. The first fall, at Harleton, some 160 miles east of Fort Worth, fell on May 30. Then, less than 100 days later, a rare carbonaceous chondrite fell near Bells, Texas, located 85 miles northeast of Fort Worth. Although Monnig was unable to acquire material from the Harleton fall, it is through his efforts that any material from the Bells fall was collected and preserved because forces of nature had conspired to erase all evidence of it.

When the Bells meteorite announced its arrival to Earth as a detonating fireball observed over northeast Texas on September 9, another force of nature was headed to the same area. Hurricane Carla, a Category 5 hurricane was in the Gulf of Mexico, heading toward Texas. On September 11, just two days after the fall, Carla reached the Texas coast as a Category 4 hurricane. The storm tracked inland, dropping heavy rains and causing severe damage and flooding.

Despite the chaos caused by the storm, Oscar Monnig and his group of amateur astronomers located the fall site near Bells, Texas where seven fragments of a rare carbonaceous chondrite were recovered from a strewn-field stretching over 7.5 kilometers. The first stone was recovered the morning after the fall after hitting the roof of a house. The remaining specimens were found after the hurricane in a somewhat weathered condition. Two were nearly intact, but the other four had shattered on impact or had crumbled because of the storm. Many of these fragments and even dust were recovered by magnets.

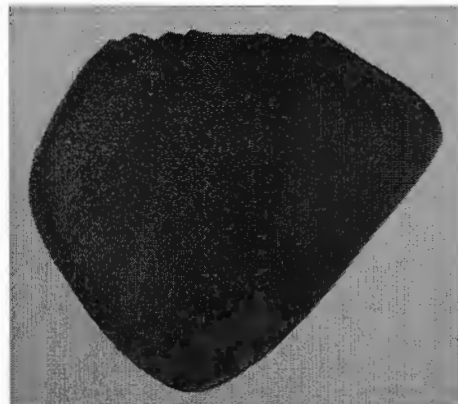
Bells originally was classified as a CM2 carbonaceous chondrite, characterized by hydrated minerals in a dark gray, fine-grained matrix making up nearly 50% of the rock. Small (<0.5mm) sparse chondrules make up about 10% of the volume. New research classifies the meteorite as an ungrouped type 2 carbonaceous chondrite, similar to the CM2 group, but with significant differences.



Cut section of the Bells meteorite. Length 3 cm. From 1985 ASU Catalog of Meteorites.



Storm track of Hurricane Carla across Texas and the Midwest. Rainfall measured in inches. Location of Bells fall noted by star. (Image modified from Wikipedia)



Rear view of oriented Bells individual showing pronounced lip. From 1985 ASU Catalog of Meteorites.