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The Rock that Hit New York

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On January 12, 1975, a rock seemed to fall from the sky over New York State's Schoharie County hitting the tractor of a local farmer, who was "preparing his fields for spring planting." As the farmer later described the event to a reporter from the UFO INVESTIGATOR, the object glanced off the tractor, fell to the ground, and melted its way through a patch of ice that was two and one half inches thick. The farmer, Leonard Tillapaugh, called the county sheriff, Harvey Stoddard, who recovered the rock, noting that it "was still warm."

The initial investigation by the sheriff centered on the farmer's belief that the rock had fallen from the sky. Immediately two problems emerged. First, the day was clear and no aircraft had been observed. Local aircraft mechanics later confirmed that the rock was not part of an airplane. Second, there was no "indication that the object was thrown up from the ground by the tractor, nor that it was part of the tractor." The sheriff then turned to the New York State Police, who were equally baffled. Unable to form any opinion about the origin of the rock, the state police contacted an investigator from the National Investigations Committee on Aerial Phenomena (NICAP). Formed in 1956, NICAP was the leading organization in the United States dedicated to the study of UFOs. Counted among the organization's board of directors were the first head of the Central Intelligence Agency, Vice Admiral Roscoe Hillenkoetter and retired four-star general Albert Wedemeyer.

The NICAP investigator contacted the Moonwatch Division of the Smithsonian to determine if a satellite or meteorite shower had passed over Schoharie County on January 12th. There answer was no. The NICAP representative next sought the assistance of Professor J. Allen Hynek, Chair for Northwestern University's Astronomy Department and founder of the Center of UFO Studies. Professor Hynek, an astrophysicist by training, had long been interested in UFO phenomena dating from his service as an Air Force consultant on Project Blue Book.

Through his Center for UFO Studies, Professor Hynek enlisted the services of the Chicago Spectro Service Laboratory in Chicago and their scanning electron microscope to analyze the New York rock. Below are the tables containing the company's experimental findings:

Qualitative Spectrochemical Analysis and Concentrational Estimates of Detected Constituents of the sample with Outside Clay Coating

Element	Percent of Composition
Iron	5-50
Silicon	5-50
Manganese	.03-3
Zinc	.05-.5
Copper	.05-.5
Sodium	.02-.2
Aluminum	.005-.05
Tin	.005-.05
Nickel	.003-.03
Chromium	.003-.03
Molybdenum	.003-.03
Titanium	.002-.02
Boron	.001-.01
Bismuth	.0005-.005
Barium	.0005-.005
Magnesium	.0003-.003
Vanadium	.0003-.003
Cobalt	.0003-.003

Qualitative Spectrochemical Analysis and Concentrational Estimates of Detected Constituents of the Sample with of the Dark Interior

Element	Percent of Composition
Iron	Major Constituent
Lead	.5-5
Silicon	.5-5
Manganese	.1-1
Copper	.03-3
Aluminum	.01-1
Sodium	.01-1
Nickel	.005-.05
Chromium	.005-.05
Molybdenum	.005-.05
Titanium	.005-.05
Magnesium	.001-.01
Boron	.001-.01
Tin	.001-.01
Vanadium	.001-.01
Cobalt	.001-.01
Barium	.0003-.003
Zinc	Not detected-<. 05
Bismuth	Not detected-< .001
Carbon	2

Two researchers, Alfred Vasconcellos and Mark Helgeson, whose affiliation is unknown, reviewed the data presented by Chicago Spectro and concluded that the New York rock was not a meteorite because it did not have a "Widemanstatten'" or mountainside grain pattern. A researcher from the Field Museum concurred in this conclusion.

Vasconcellos and Helgeson further concluded:

- The carbon content was consistent with cast iron and could be a piece of slag or blow off from one of the very early steel mills that had long since disappeared from the area. Vasconcellos and Helgeson discounted this possibility because of the lack of impurities that a PbS crucible would leave in the metal.

- The rock was not a hoax because the metal composition could not be easily duplicated.

- The farmer told the truth about the event because he had no reason to lie.

- Finally, Vasconcellos and Helgeson presented their real conclusion. The rock did indeed fall from the sky. Hence, the specimen "is from another planet or terrestrial body and was thrown here by an extraneous force such as an explosion." They go on to say, "To man's knowledge cast iron has never been found in nature and yet this piece is apparently (or rather was) cast iron. Does this imply there is extraterrestrial intelligence …?"

As UFO matters generally go, the story of the rock that fell on New York would disappear into the dustbin of history, but not before a sample came to Los Alamos for evaluation (circumstances unknown). John Warren, CTR-DO, convened the UFO Sample Meeting, aka Chicken Little's Egg, with staff members from across the Laboratory including CNC-11, P-4, M-1, and L-1, and Q-21. The group made the following observations:

- This rock, if it fell from space, would have reached a speed between five and twenty kilometers/second and would have created a hole of about two feet in diameter. However, it also left no distinguishable mark on the tractor.

- This rock had very little energy, approximately 45 kilocalories. However, the object was warm, even after melting through a patch of ice.

- The rock is composed of iron oxide throughout. C streamers carry O inside that oxidizes iron. One would expect this from iron that is reheated at moderate temperatures after casting. The PbS found on the surface probably came from the known bullet making in the area.

- The object is typical cast iron from a crude metallurgy process.

- There is no evidence of extreme thermal shock.

- The central cavities appear to have been created by the removal of C pockets from the polishing technique used when the rock was first evaluated in Illinois.

The committee concluded:

- The rock is not a meteorite because there is no Ni.

- The rock is not from outer space because there is no evidence of ^{54}Mn from Fe. Rather it shows evidence of being cheap coal iron.

- The Pb was deposited after its formation because the oxidation is under the PbS layer.

- The rock is weathered.

- The rock was subject to heating, but not to the melting point of Pb.

Two possible theories on the origin of the rock were put forward. First, "the farmer was not plowing (not in January in northern New York). He was preparing his fields, perhaps, spreading manure. If he had collected a spreader load during the winter, preferably in the spreader, it would be quite hot. If a piece of metal lying around the barn (quite common) had gotten mixed in, it could easily have been warm and thrown by the spreader into the air, striking the tractor." The second theory, put forward by Carl Orth, CNC-11, was that: "the piece is from inside the manifold of the tractor."

Don Barr, also of CNC-11, and Orth rendered the final Los Alamos evaluation of the New York Rock. In a memo to Warren, they stated:

> "We have measured the γ-ray spectrum of the N.Y. fall piece of iron and find no indication of the presence of γ −emitting radionuclides. If this material had been in space, we would have expected to find about 0.17 cpm in the 835-keV photopeak of 312-d ^{54}Mn at the time of counting. We did observe 0.060 ± 0.005 cpm at this energy which is identical to what we find in the natural cosmic ray induced background of the Ge(Li) detection system; this small contribution in 835-keV region is due to the (n,n') excitation of ^{72}Ge in the Ge(Li) detector itself.
>
> In summary, the absence of the γ-ray photopeak due to ^{54}Mn decay leads us to the conclusion that this piece of material (N.Y. fall) was not exposed to an outer space environment."

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Although the rock, itself, proved inconsequential as an artifact, it did provoke a number of interesting events and issues beginning with the reaction of the sheriff, who took an undue interest in a small, golf ball sized rock. Equally interesting was the involvement and reaction of the New York State Police, specifically their enlistment of a NICAP representative. Did the lack of a simple, obvious explanation lead them to assume an otherworldly answer? To be clear, however, this part of the story comes from only one source – NICAP's publication, UFO INVESTIGATOR.

The involvement of Professor J. Allen Hynek also is interesting. Hynek was a respected astrophysicist educated at the University of Chicago and the Yerkes Observatory. Hynek believed that UFO studies deserved honest treatment by scientists. "Ridicule," he said, "is not part of the scientific method." Hynek's Center for UFO Studies hired the Chicago Spectro Service Laboratory to evaluate the rock. Although the data generated by Chicago Spectro was the basis for a sixteen-page report by two UFO researchers, the data was not used at Los Alamos.

Why and how a sample of the rock came to Los Alamos is not known. However, it captivated a wide Laboratory audience, was subjected to rigorous testing and evaluation. Los Alamos used the scientific method in the manner promoted by Hynek. Did Los Alamos solve the mystery of the rock's origin? Not definitively. Although the exact origin could not be determined, it was shown conclusively that the rock was not from outer space. With that said, the saga of Rock that hit New York came to an end. Nothing more was said or written about it. The principals involved have long since passed from the scene. The NICAP ceased operations in 1980. And, the rock, itself, has disappeared.