

UNIVERSITY OF MINNESOTA
Department of Planetary Geoscience
Minneapolis, MN 55455

Subject: Possible Forgery — Amesworth Meteorite

Dear Investigator,

My name is Dr. Alan Chu, and I teach planetary geology at the University of Minnesota. While reviewing archival photos for a research project on regional meteorite falls, I came across several images from the Northwood Observatory's Stargazer Event (October 2015) featuring the Amesworth Meteorite.

When looking at more recent photos of the meteorite something caught my attention. The texture and surface structure of the specimen seem "off". I can't put my finger on why and the photos I have aren't detailed enough.

I contacted the Northwood police department and they will be sending you the original case file. I'm hoping that you can take a look.

Sincerely,

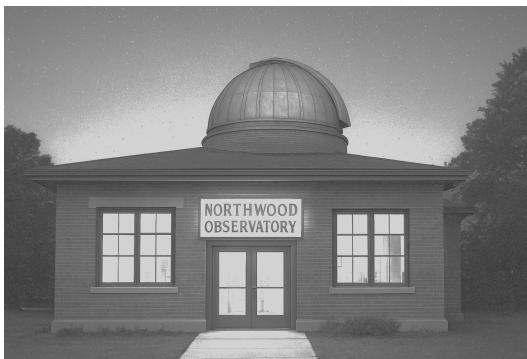
Dr. Alan Chu

Professor of Planetary Geoscience
University of Minnesota
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Prized Meteorite Vanishes from Northwood Observatory

By Rachel Nguyen, Staff Reporter

Northwood, MN — In an unexpected turn of events, the Amesworth Meteorite, the Northwood Observatory's prized iron-nickel specimen, disappeared during last night's annual *Stargazer Event*.



The meteorite, on loan from the National Geological Collection, had been the centerpiece of the observatory's exhibit for over 15 years. Attendees at the event, which drew more than 200 stargazing enthusiasts, reported that the meteorite was present at the beginning of the night's activities but was missing by the conclusion of the telescope demonstration around 8:55 p.m.

Observatory Curator Dr. Helen Markham confirmed early reports this morning. "It was shocking," Dr. Markham said. "The Amesworth Meteorite is irreplaceable, and we are working closely with the Northwood Police to determine what happened."

Police reports indicate that security cameras covering the display case experienced a brief outage during the suspected window of disappearance. The observatory confirmed there were no signs of forced entry. Investigators have launched a full review of event records, staff schedules, and visitor statements to locate the missing specimen.

"This is one of the largest and most important meteorites in the region," said Markham. "Losing it, even temporarily, would be a serious blow to both scientific research and public education."

Northwood Police ask anyone who may have witnessed unusual activity near the observatory between 8:20 and 9:00 p.m. to come forward.

Around Northwood

Local Business Spotlight

Joe's Hardware celebrated 30 years in business this week with a ribbon-cutting and free coffee for customers. Owner Joseph Johnson says he's offering special discounts for community garden tools all month.

Library Storytime

Special story time just for preschoolers. Sunday at 10:30 a.m. at Northwood Public Library. Free; registration encouraged.

Historic Society Exhibit

The Northwood Historic Society opens a temporary exhibit on "Midwestern Meteor Finds" in the community center beginning next week. Admission is free.



Northwood Pawn & Collectibles

"Where your next treasure is found"

Main Street, Northwood
555-5973

NORTHWOOD OBSERVATORY PRESENTS

★ STARGAZER ★ NIGHT 2015

Free Admission - All Ages Welcome!



The History of the Amesworth Meteorite 7:30 pm

--- EVENT SCHEDULE ---

8:15 pm - TELESCOPE DEMONSTRATION

See the latest observatory telescope in action with guest speaker

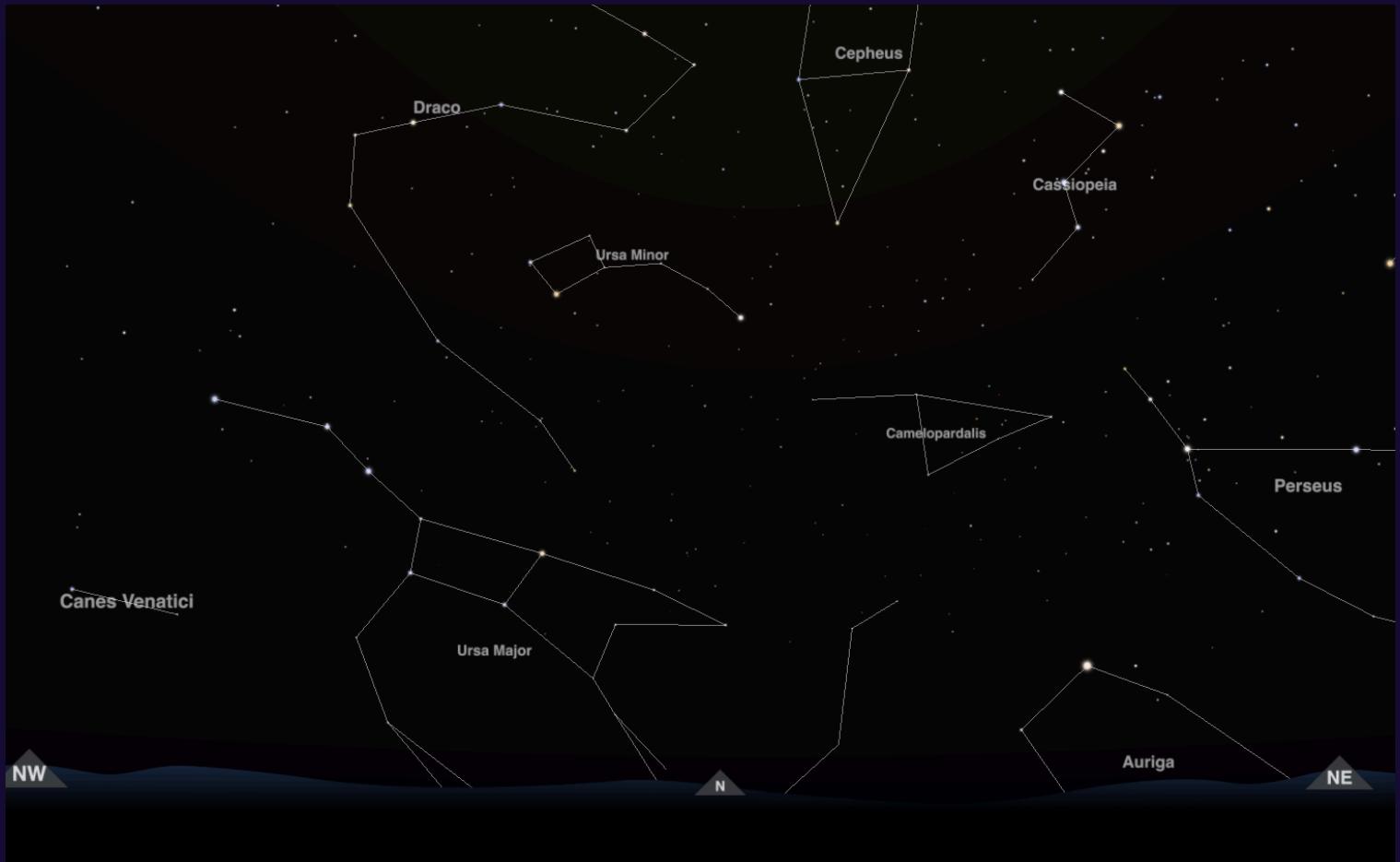
9:00 pm - STARGAZING ON THE LAWN

Bring a blanket while local astronomers guide you through the night sky

--- Other Happenings ---

Live music by The Cosmic Tones - Make Your Own Constellation - Raffle - Snacks and Beverages - Life of a Star by 5th grade at Northwood Elementary - Dance of the Planets by Carson Dance School

Our Night Sky





Northwood Observatory

The Amesworth Meteorite: From the Heavens to Northwood

A Meteor That Shook the Quiet Countryside

On the cold evening of March 12, 1987, residents across rural northern Minnesota saw a brilliant fireball streak across the sky just after 9:00 PM.

Eyewitnesses described it as “a silver-green torch” followed by a low rumble that rattled windows for miles.

Local farmer Ed Amesworth, whose family name the meteorite would later carry, recalled:

“I thought maybe a small plane went down. The light was so bright it lit up the barn like daytime for a second or two.”

The following morning, Amesworth and his son followed a narrow trail of scorched earth across their property and discovered a shallow impact pit near the tree line — roughly three feet wide. Inside lay a dense, metallic-looking stone, half-buried in frozen soil. The rock was unusually heavy for its size and left faint magnetic traces on a nearby shovel.

They contacted local authorities, who in turn reached out to scientists at the University of Minnesota. Within days, geologists confirmed what many suspected — it was a meteorite, a rare visitor from space.



From Farm Field to National Treasure



Weighing approximately 30 pounds, the Amesworth Meteorite was classified as an iron-nickel meteorite, a type composed mainly of iron with 18% nickel, showing a beautiful crystalline pattern known as Widmanstätten lines when cut and polished.

Iron-nickel meteorites make up only about 6% of known meteorite finds. Most meteorites that reach Earth are small — less than a pound — and burn up or fragment before hitting the ground. Large, intact pieces like the Amesworth are

exceptional; statistically, only one or two of that size reach Earth's surface anywhere in the world each year. Most of these larger meteorites are never found.

The specimen was officially transferred to the National Geological Collection, which later loaned it to the Northwood Observatory in 2000 as the centerpiece of its new educational exhibit.

What Iron-Nickel Meteorites Teach Us

Iron-nickel meteorites originate from the cores of long-destroyed asteroids that formed early in our solar system. Studying them helps scientists understand how planets — including Earth — developed metal-rich interiors billions of years ago.

Their composition provides evidence of ancient heat, pressure, and magnetic activity in these primordial bodies. To researchers, the Amesworth sample is a window into the deep past of planetary formation.

Myths and Mysteries of Meteorites

Before modern science, meteorites were shrouded in mystery. Some ancient cultures believed they were “gifts from the gods” or fragments of divine weapons. In parts of Europe, people once thought meteorites carried healing powers, using fragments as protective charms. Others viewed them as omens of disaster or symbols of transformation.

Even in Northwood, a few locals joke that the Amesworth Meteorite “brought the stars closer” — especially since tourism and local pride have flourished ever since it arrived.

The Heart of Northwood

Over the past 15 years, the meteorite has become a beloved symbol of the town’s connection to the cosmos.

- The **annual Stargazer Event** at the observatory draws hundreds of visitors each fall, celebrating the night sky and showcasing the Amesworth display.
- The **Northwood Elementary School** puts on a charming play each spring called “*Our Friendly Meteorite*,” where students reenact the night it fell, complete with tin-foil helmets and cardboard telescopes.
- And at **Northwood Café**, patrons line up for a slice of the town’s signature dessert — *Meteorite Pie*, a rich chocolate mousse with a shimmering sugar “crater” on top.

Locals joke that the meteorite has become “Northwood’s second sun,” lighting up the town in more ways than one.

Termology

- **Meteoroid:** A small, natural object in space, typically smaller than an asteroid.
- **Meteor:** The streak of light or fireball produced when a meteoroid enters Earth's atmosphere and burns up.
- **Meteorite:** A meteoroid that survives its passage through the atmosphere and lands on the Earth's surface.



Northwood Research Institute

October 20, 2015

Dear Sergeant Bellamy,

My name is Martin Holbrook, and I'm the Head of Security for the Northwood Research Institute and Observatory. I've worked at the facility for nearly twelve years, overseeing all building access, event security, and surveillance systems.

Regarding the twelve-minute blackout in our security footage on the night of October 17th, the outage began at approximately 8:29 p.m. and lasted until around 8:41 p.m. During that time, all of our live camera feeds and recording systems went offline. The blackout wasn't caused by a power failure — the lights and other systems stayed operational — but the security network itself has been known to glitch out and restart occasionally.

Our equipment is, frankly, outdated. While we've requested upgrades several times over the years, the budget usually goes toward telescope maintenance, research initiatives, and public outreach programs. I understand why — the observatory is known for its science, not its security — but it's been a frustration of mine for a long time.

Truth is, thefts or disturbances here are nearly unheard of. We're a quiet place. The observatory's been part of Northwood's identity for decades, and the community loves it. We get families, school groups, amateur astronomers — good, curious folks. So when I heard the Amesworth Meteorite had gone missing, I was honestly stunned. It doesn't make sense to me why anyone would want to take something that belongs to everyone in town.

I'll admit, I feel partially responsible. We had extra staff on duty that night for the Stargazer event, but most were focused on crowd management and safety around the telescopes. We weren't expecting anyone to mess with the exhibits inside. In hindsight, maybe we should've had someone stationed near the meteorite display, especially given how many visitors were moving through.

We've reported the technical issue to our system vendor, and I've already requested an immediate review of all security footage leading up to and following the blackout. We'll also be submitting another funding request for updated surveillance equipment.

That's all I can report at this time.

Martin Holbrook

Martin "Marty" Holbrook
Head of Security, Northwood Research Institute



Northwood Police Department

Witness Statement (Form W-734)

Case No.
15-1107

Date filed:
October 22, 2015

WITNESS DETAILS

First Name: Joseph

Last Name: Kramer

Occupation.: Owner of Northwood Pawn & Collectibles

Address: 642 Main street

WITNESS STATEMENT

My name's Joseph Kramer, but everyone around here just calls me Joe. I've owned and run Northwood Pawn & Collectibles for a little over twenty years now – right on Main Street, next to the bakery. This town's my home. I know just about everyone who comes through my door, and I take pride in keeping things honest and neighborly.

Over the years, I've seen just about everything come across my counter – antique fishing lures, an entire collection of snow globes from the '70s, even a taxidermy raccoon holding a beer can. But this one... this was different.

On the morning of October 17, the day of the Stargazer event, I got a phone call from someone asking if I bought meteorites. That's not a question I get every day – in fact, I don't think I've ever had anyone call about selling one. I told them it would depend on what it was and that I couldn't give any sort of offer without seeing it first. Before I could say much else, they hung up. The whole thing struck me as odd at the time, but I didn't think too much of it until later that week.

On the afternoon of October 21, a person came in carrying a small gym bag. Inside was a heavy, dark, metallic-looking rock, about the size of a loaf of bread. They told me it could possibly be a meteorite but weren't sure. Said they'd found it lying out in the grass the morning after the Stargazer event and had taken it home. Hearing someone casually say they "found" a meteorite sitting in the grass didn't sit right with me.

That's all I can recall.

WITNESS STATEMENT (continued)

Now, I love the Northwood Observatory. My grandkids and I go up there every summer to look through the big telescope. I had read about the missing Amesworth Meteorite and immediately wondered if this could be it.

The person said they needed quick cash, didn't care what they got, just wanted it gone. I told them that if it was really a meteorite, that was a big deal and it'd need to be verified before I could even think about buying it. They didn't want to give their name or sign anything – just kept saying, "I want to be done with it."

I figured I should keep them talking, so I offered \$300 cash. They jumped at it, took the money, and left in a hurry. I locked the rock up in my back office and called the police right after. I've been around long enough to know when something's off, and this definitely was.

Didn't recognize them. Wasn't exactly nervous, just... wound tight. Average height, maybe late twenties or early thirties, brown hair, baseball cap, light jacket. No name, no vehicle, no small talk.

WITNESS DECLARATION

I declare that this statement is made voluntarily, and I confirm that the information provided is accurate and truthful to the best of my knowledge and memory. I also understand that this statement may be used in legal or formal proceedings.

Joe Kramer

10-22-2015

Witness Signature

Date

OFFICE

Sgt. T. Bellamy, Northwood PD

Sgt. T. Bellamy

Badge #108



Northwood Police Department

Evidence Inventory Report

Case No.

15-1107

Date filed:

October 22, 2015

ITEM INFORMATION

Item Description:

Metallic rock specimen, believed to be the Amesworth Meteorite. Object exhibits irregular shape with uneven surface texture and visible oxidation. One side has been cleanly sliced, revealing a smooth, silver-colored metallic interior.

Approximate Dimensions: 16 cm (L) x 13 cm (W) x 14 cm (H)

Approximate Weight: 14 lbs

Surface Condition: Moderate oxidation with minor abrasions consistent with handling.

Distinctive Features: Flat cut section on one side exposing polished metallic interior.

CHAIN OF CUSTODY

Received From: Joseph "Joe" Kramer, Owner, Northwood Pawn & Collectibles

Date/Time: October 21, 2015 / 3:42 PM

Received By: Lt. J. Anders (Badge #214)

Witnessed By: Sgt. T. Bellamy (Badge #108)

Item Secured In: Evidence Bag #15-1107-03

Storage Location: Northwood PD Evidence Locker B - Shelf 2

REMARKS

Item was voluntarily surrendered by Mr. Kramer following his report of a suspicious attempted sale involving a man claiming to have found the Amesworth Meteorite. The item was sealed, labeled, and logged under Case File 15-1107.

Per communication with the Northwood Observatory, an authentication report has been formally requested to verify the specimen's identity and origin. The object will remain in police custody pending laboratory analysis and confirmation.

Sgt. T. Bellamy

Sgt. T. Bellamy – Badge #108

Date: October 22, 2015

Lt J. Anders

Lt J. Anders – Badge #214

Date: October 22, 2015



Northwood Observatory

Artifact Authentication Report

Case Reference: NPD 15-1107

Date of Examination: October 27–28, 2015

Prepared by: Dr. Helen Markham, Curator, Northwood Observatory

Submitted to: Sgt. Thomas Bellamy, Northwood Police Department

Item Received:

One metallic object, identified as suspected Amesworth Meteorite.

Delivered by Sgt. Bellamy on October 26, 2015 at 9:42 a.m., under Evidence Tag #15-1107-03.

Description:

The specimen provided matches the size, general shape, and weight of the Amesworth Meteorite previously on display in the Northwood Observatory's main exhibit hall. The meteorite exhibits a dense iron-nickel composition, with visible Widmanstätten patterns consistent with prior photographs. Surface oxidation is minimal and consistent with prior preservation notes.

A distinct notch along the specimen's lower left quadrant corresponds to a small fracture documented during the 2008 display case incident. This meteorite is usually displayed with the notch on the bottom.

Verification Process:

- Visual comparison performed using archival photographs (2005–2015).
- Measurements taken with calipers, mass recorded using digital laboratory scale.
- Surface pattern comparison completed using stereomicroscope (10 \times magnification).
- Composition analysis using x-ray fluorescence.

All recorded data falls within the expected variance from prior records.

Photographs:



Conclusion:

Based on size, mass, composition, and identifiable surface markings, I conclude with reasonable certainty that the specimen examined is a ferrous (iron-nickel) meteorite. This meteorite is the original Amesworth Meteorite previously missing from the Northwood Observatory.

Item returned to the observatory's secured collection vault on October 29, 2015, 1:15 p.m.

Display reinstated pending installation of new security cameras and reinforced display case.

Filed by:

Dr. Helen Markham

Curator, Northwood Observatory

Dr. Helen Markham

Signature: H. Markham

Date: October 29, 2015

Missing Meteorite Recovered at Local Pawn Shop

By Rachel Nguyen, Staff Reporter

Northwood, MN — Nearly a week after the disappearance of the Amesworth Meteorite from the Northwood Observatory, the prized iron-nickel specimen has been recovered thanks to a tip from a local business owner.

Joseph Kramer, owner of Northwood Pawn & Collectibles, contacted police Monday afternoon after an unidentified individual attempted to sell what appeared to be the long-missing meteorite.



"I've been taking my grandkids to the observatory for years," Kramer said. "I knew if this was really the Amesworth meteorite, I had to involve the police immediately." Kramer secured the item and alerted authorities.

Police transported to the observatory for authentication. Dr. Helen Markham, Curator of the Northwood Observatory, reported that the meteorite appeared consistent with previous measurements and visual documentation. The case, which had captured the attention of the local community, was officially closed Thursday.

"This is a relief for everyone who cares about the observatory and the Amesworth meteorite," Dr. Markham said. "We are taking additional precautions to ensure the safety of our collection moving forward."

Police continue to seek information about the unidentified individual who attempted the sale. Anyone with knowledge of the incident is encouraged to contact the Northwood Police Tip Line at (612) 555-0199.

Northwood Research Institute Names New Biochemist

The Northwood Research Institute is pleased to announce the appointment of Dr. Eleanor Vance as Senior Biochemist in the Institute's Environmental Health Division. Dr. Vance, a leading biochemist renowned for her groundbreaking work on synthetic enzymes, will begin her tenure on November 2.

"We are thrilled to welcome Dr. Vance to our team," said Marisol Reyes, Director of NRI. "Her expertise in synthetic enzymes aligns perfectly with our mission to develop sustainable solutions for environmental challenges."

A meet-and-greet with Dr. Vance is scheduled at the Institute's public forum on November 5; details and RSVP info is posted on the Institute's website.

Joe's Hardware – Tools for Every Project!

From garden gear to home repair, Joe's Hardware has everything you need.

Friendly service, great prices, and 30 years in the community!



Northwood Police Department

Case Notes

Case No.
15-1107

Date filed:
October 30, 2015

SUBJECT: The Amesworth Meteorite Theft

Following investigation into the reported theft of the Amesworth Meteorite from the Northwood Observatory on October 17, 2015, the case is hereby closed.

Initial reports indicated the meteorite was taken during the public Stargazer event held that evening. Interviews were conducted with observatory staff, event personnel, and individuals present at the time of the disappearance. Several potential suspects were identified and questioned.

On October 21, 2015, the missing meteorite was recovered after being brought to the Northwood Pawn & Collectibles shop. The item was promptly turned over to police and subsequently verified as authentic by observatory staff.

Given the recovery of the meteorite and the lack of further leads identifying the individual responsible, the case will not be pursued at this time. The Northwood Police Department does not have sufficient resources to continue the investigation absent new evidence.

Case status: Closed – Property Recovered

OFFICE

Sgt. T. Bellamy

Sgt. T. Bellamy, Northwood PD
Badge #108