Meteorite-Times Magazine

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by Editor

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A May 1874 Witnessed Fall: Castalia, North Carolina, USA

Geologic Poetry from Space:

*Drink from the fountain of Castilia and be inspired to write meteorite verse.*

Castalia fell to earth on May 14, 1874. Three pieces were collected totaling about 7.3kg with a majority of the material in one 5.5 kg individual.

Being a xenolithic and brecciated H5 chondrite simply means Castalia is beautiful. But more specifically, it means that the mix of broken fragments cemented together (brecciated) contains material not from the original mass (xenolithic).

But even more specifically, Castalia, in Greek mythology, was,
according to Wikipedia: “a nymph whom Apollo transformed into a fountain at Delphi, at the base of Mount Parnassos.

Castalia could inspire the genius of poetry to those who drank her waters or listened to their quiet sound.”

So drink the beautiful waters of Castalia, and enjoy some meteorite poetry.

A Meteorite Speaks
- likely by H. H. Nininger

A hieroglyphic message is written on my face
Recording ancient happenings far in the depths of space.
It tells of my beginnings where fiercest fires held sway,
My leap into ethereal space and how I sped away.

A diary of my wanderings, lonely ‘mongst the stars,
A thousand of such incidents as Jupiter and Mars.
I’ve watched a host of planets grow from out the spatial voids;
Witnessed lunar peltings and played tag with asteroids.

I held my course through solar heat, likewise through frigid space.
I wooed the lovely Pleiades and gave Orion chase.
I know severest loneliness from all celestial forms;
Likewise the social gaiety of cometary swarms.

Freely through ethereal space I loved my course to steer,
But trapped at last fell victim to earth’s dread atmosphere.
In arid wastes I landed, then, smote by desert sand
My skin deep brown was varnished by oxygenic hand.
The Meteorite
by C. S. Lewis

Among the hills a meteorite
Lies huge; and moss has overgrown,
And wind and rain with touches light
Made soft, the contours of the stone.

Thus easily can Earth digest
A cinder of sidereal fire,
And make her translunar guest
The native of an English shire.

Nor is it strange these wanderers
Find in her lap their fitting place,
For every particle that’s hers
Came at the first from outer space.

All that is Earth has once been sky;
Down from the sun of old she came,
Or from some star that traveled by
Too close to his entangling flame.

Hence, if belated drops yet fall
From heaven, on these her plastic power
Still works as once it worked on all
The glad rush of the golden shower.
This wonderful slice of North Carolina history spent time up north in the famous collection of Phil Scalisi.

Nothing but good comes from the Scalisi collection, and I view the specimen labels and cards that accompany our precious meteorites.
through time as simply nouns leading to more verbs and adjectives to work with.

Meteorite Dealers

Amy Trussell

2007

http://www.lulu.com/product/paperback/meteorite-dealers/2067816

Page 42 of the document linked to below holds the poem "Meteorite Dealers."

a brief excerpt:

"Here the meteorite dealers scavenge
and close in on rocks re-warmed by sun,
squatting with fig leaf bandannas.

You can examine one with a magnifying glass:
it looks like a piece of placenta
 unearthed in a storm, petrified."
For me, meteorites are an expression of art as well as science.

It is not unusual in science to struggle over the hard truths of a specimen, but I would argue that it is just as important to challenge our grammar and vocabulary skills in the quest to understand the language of meteorites.

And what better place to start then with the experts. The Poets.

Until next time....

The Accretion Desk welcomes all comments and feedback. accretiondesk@gmail.com

Please Share and Enjoy:
Over the years my wild goose chases for meteorites can be counted on one hand. I just don’t seem to get a lot of the calls about grandpa’s meteorite that fell on the hill just over there. But, I got home from an early morning meeting one Saturday recently as the phone rang. It was a professor in the Physics and Astronomy department at the university who my wife worked with. Over the years we have been to dinners and retirement parties and often talked of meteorites. He and his wife have a wonderful antique store in the quaint old town area of Monrovia in Southern California. A man had come into their store with “meteorites” he wanted to sell.

My wife took the call and was surprised to hear Dr. Taylor’s voice. And even more surprised when he asked if I would be interested in buying meteorites from a man who was in the store. She gave the phone to me and I asked for a description of the rocks. And they did not sound like meteorites. They were black but not attracted to a magnet at all. My mind jumped to the ferro-manganese stuff that our desert is full of now. We talked a minute and I gave the basic simple tests for him to try and he said “I don’t think they could be meteorites.” Dr. Taylor said the man had some bigger ones in the car and went to look at those also. He returned to the phone and said that the magnet struck to those and they looked different from the others. I asked if the man would wait because it would take us a while to get there. The man said he would wait.

In a few minutes Sara and I were off on our meteorite adventure. It was about 40 miles to the antique store from our home. We had been there before to shop and I knew the way well. Actually, Sara loves the store very much and enjoys going when ever we can.

I had gabbed my diamond file, magnet, loupe and 500 gram electronic scale and put them into a plastic bag. I was ready to make my on the spot analysis. We arrived and after a short introductory moment headed to a table in the back of the store to examine the “meteorites”. There were three large rocks on the table and a cardboard box lid covered with smaller different stones. Well, the three rocks on the table were each a different type of meteor-wrong. One was a big piece of furnace slag that was rusted brown and the magnet slammed on to it strongly. One of the other two was also slag but black and was bubbly on the one broken surface. The outside of it was actually quite reminiscent of a meteorite. Unfortunately, it was also furnace slag and not very magnetically active. The last of the three large stones was a basalt cobble of considerable size. My rare earth magnet barely pulled to it. I have dug up plenty as hot rocks at strewn fields whose names are know by most of the reader of this article.

I told the man what they were and that none of the three large ones were meteorites. I moved my attention to the rocks in the box lid. These were all small. They were a dense black the perfect color of fresh fusion crust from a fall that happened yesterday. They were the correct size and shaped similar to many meteorites in my collection. But, there is no Eureka moment in this story. They were pieces of the ferro-manganese slag that has been scattered over our desert. Exactly how it has gotten to all the places it is found is kind of a mystery. It seems likely that it is material produced in vast amounts during the time the iron works of Kaiser Steel were in operation at Fontana, California. I remember as a kid seeing those enormous slag heaps. But, this stuff is found spread widely across the Southern California area. I told him once again that he had no meteorites and he took it pretty well. Since we were there we looked around the store and of course found a couple things we could not live without.

I have been presented with a piece of that slag every time I have spoken to a group on meteorites for the last ten years. Everyone has one and believes its a meteorite. But, if you remove the surface black you will see a shiny metallic material that is just a little too silvery looking to be iron. But, it is not effected by a magnet very much. It’s tricky stuff. It also seems to tarnish back to
Well, I guess the real news this month has been the spectacular fireball and meteorite fall in Wisconsin. The pieces are being found but it seems that they are being recovered at a slower rate then some other recent falls. I expect that meteorites will be found in the area for a long time. I looked at the various videos and I think there are some big pieces out there waiting to be recovered. But, it is a vast strewn field. It would take a diligent hunter a lifetime by himself to hunt it all. Guess it is good that there’s a small army of eager meteorite hunters. Just a few more years will find me retired and maybe I will join them at future falls.

I have had a box of nice chunks of Alamo Breccia sitting around for several years. I started cutting more of it up this month. I love the stuff. Was inspired to work with it again since seeing Geoff and Steve back at the location on Meteorite Men. It was Geoff’s enthusiasm for the impact site that led Paul and I to take vacation there years ago. The material cuts easy and polishes up beautiful. Makes me wish my saws and laps were a lot bigger. I have some big pieces and have never figured out how to make use of them whole.
They would fit in the big vibrating lap but I would need to make a cut through the middle of them. I will give it more time and thought, but soon I think I will make some really striking display pieces of Alamo Breccia. Might just have to get a bigger saw.

Like so many other collectors my collection now has a Buzzard Coulee individual. I received it today, but I picked it out in Tucson. It came with its export permit and I am just as happy as can be.

I selected a small completely crusted stone that was oriented. It has one side that is shield shaped, there is a little build up with flow lines around the circumference. It is quite a cute little stone well worth the wait.
I suppose at some point I will get one of the stones from the Wisconsin fall. But, I think I will let it all settle out a bit before I buy. It does look to be an interesting meteorite. I am enjoying reading all the stories coming out of the strewn field. Well, its time to sign off and get the Buzzard Coulee under the microscope for more examination. Have a great month.

Please Share and Enjoy:
Meteorite-Times Magazine

Meteorite Market Trends
by Michael Blood

This Month’s Meteorite Market Trends

by Michael Blood

Please Share and Enjoy:
Recovery of Meteorites from the 4/14/2010 Fall in Wisconsin
by Robert Verish

What Made the Recovery of Meteorites from the 4/14/2010 Fall in Wisconsin such a Rapid and Timely Success?

The quality of Doppler-radar weather images from NOAA is the main reason.

There has been much written about the April 14th fireball and fall of meteorites in Grant and Iowa County in Wisconsin. [As of the publishing of this article, there still has not been a formally-approved name assigned to this meteorite] And there is little that I can add to this subject, at least, until I pay a visit to this strewn field. But the subject is still very timely, and if a contribution could be made that would assist in the recovery of meteorites from that fall, then “now” would be an appropriate time to publish that kind of information.

So, that is why in lieu of my regular article in this month’s edition of Bob’s Findings, I’ve dedicated this space to Rob Matson and his images of doppler-radar from the NOAA National Weather Service (NWS). Rob had posted a message to the Meteorite-List, seeking a photo repository in which his images could be archived and so that his data could be shared. Although Rob received many immediate replies, it was my offer of this month’s edition of Bob’s Findings (with the portal through Meteorite-Times.Com) that made it a sensible choice.

The data in the images could use a little explanation in order for them to be utilized properly, but let’s take a look at them, now:

May 2010 – Here are links to Rob Matson’s images of the NOAA-NWS NEXRAD Doppler-radar reflections of the Wisconsin meteorite fall of April 14th, 2010:

Rob Matson’s NEXRAD Doppler images of 4/15/2010 03:06:22 UT from LaCrosse

Rob Matson’s NEXRAD Doppler images of 4/15/2010 03:08:29 UT from Davenport

Rob Matson’s NEXRAD Doppler images of 4/15/2010 03:08:37 UT from LaCrosse
Here are some comments from Rob Matson regarding his images:

"These files will require some explanation for people unfamiliar with Doppler radar to interpret correctly. The fast scan direction for Doppler is in azimuth (clockwise). The slow scan direction is in elevation, from lowest elevation angle to highest. So each full volume scan consists of 5 or more full sweeps in azimuth, with one (and sometimes two) sweeps at each elevation angle.

"There were three radars that "detected" the Wisconsin fall: La Crosse, WI; Milwaukee, WI; and Davenport, IA. The Milwaukee and Davenport radars each detected the dust/smoke trail in two scans. However, the La Crosse radar was operating in an unusual mode at the time of the fall, generating a full volume scan in about 4 minutes 15 seconds, consisting of 17 (!) individual elevation angle slices, one every 15 seconds. As a result of this fast scan rate, La Crosse captured 11 separate images of the fall: completely unprecedented in all of the US and southern Canadian falls detected by NEXRAD in the last 15 years.

"Listed above are fifteen images in time sequence, where the filename indicates both the radar that generated the image, and the time (GMT) of the particular elevation angle scan when it passed over the bolide cloud location. Note that there is a time recorded in the third line of the column of data to the right of the radar image, but that this time corresponds to the *start* of a full volume scan -- not the time of the particular elevation angle slice displayed."

And Rob Matson adds, “Enjoy the images! I hope you find them useful.”

So, in answer to this article’s subject title question, "How were they able to find the meteorites so
soon after the fall?"

I feel that it was the high-quality of the NWS Doppler-radar with its very distinctive trace of the fireball (which was readily available to the general public) that was the impetus to getting the meteorite hunters so quickly into the [strewn] field.

References:

Discover Magazine:

Huge fireball over Wisconsin! | Bad Astronomy | – Apr 14, 2010 … Rob Matson Says: April 16th, 2010 at 12:25 am … The story doesn't say where the find was made, but my educated guess (based on Doppler radar imagery) is that it was recovered …

Shawn Alan:

Meteorite Fall Wisconsin – in MeteoritesRock.com -
The interesting facts, video news reports, newspaper etc.

Bob’s Findings:

February 2009 Article – in Meteorite-Times.Com -

“What Made the Recovery of Meteorites at West, TX such a Success?” – Comparison of some recent bolide events.

NEXRAD:

Next-Generation Radar – in Wikipedia -

is a network of 159 high-resolution Doppler weather radars operated by the National Weather Service, an agency of the National Oceanic and Atmospheric Administration (NOAA) within the United States Department of Commerce.

FBWG:

Fireball Working Group – The purpose of this group is to exchange data regarding fireball events and to provide a venue for experts and novices to assist field investigators in collecting and analyzing reports from whatever traditional or non-traditional sources there maybe.

My previous articles can be found *HERE*

For for more information, please contact me by email:

Bolide*chaser

Please Share and Enjoy:
The Cartersville Meteorite
by Dave Gheesling

At about 11:00 p.m local time on March 1, 2009, a meteorite was heard when crashing through the roof of a house in Bartow County, Georgia. An extensive search of the surrounding area has been conducted by the author and several others, but no additional stones have been found, most likely because the terrain does not present favorable recovery conditions.

The 294 gram Cartersville meteorite (Photo courtesy of Dave Gheesling)

Impact artifacts remain on the meteorite’s surface, including roofing material, wood fibers from impact with the rafter, gypsum from passage through the ceiling and paint from a glancing blow with an interior door. Arrangements are currently being made to classify the stone, which is an ordinary chondrite originating from either the L or LL parent body.
A meticulous search for the missing fragment was also conducted inside the attic and house, but nothing was found as it was almost certainly an air break.
Tellus Museum curator Julian Gray on the roof, indicating the position of the meteorite's entry into the house. A temporary patch had been applied beneath the hole by the landowner at the time the photo was taken. (Photo courtesy of Dave Gheesling)
Robert Ward, who participated in the extensive ground search, at the scene of terrestrial impact. (Photo courtesy of Dave Gheesling)

Julian Gray, working in the attic with the author to determine the entry angle and flight azimuth of the meteorite. (Photo courtesy of Dave Gheesling)
Julian Gray, the author and Tellus Museum executive director Jose Santamaria with the Cartersville meteorite and impact artifacts at the public announcement press conference. (Photo courtesy of Dave Gheesling)

The Cartersville meteorite on display at Tellus Museum, a spectacular, 120,000 square foot science museum that is
also in Bartow County, Georgia. (Photo courtesy of Dave Gheesling)

The author with the Cartersville meteorite, moments after having confirmed its meteoric origin for Tellus Museum -- making it Georgia’s 25th recognized meteorite. (Photo courtesy of Dave Gheesling)
Saratov L4
by John Kashuba

Chuck,

While you’re saving up money for that d’Orbigny angrite thin section you’ve been wanting I suggest you buy a chondrite TS or two, just to stay on your game. They don’t have to break the bank. One I’d suggest is Saratov if you can find one. The cost is usually reasonable and it always seems to have a good variety of features. It’s an L4 so the chondrules are large and there’s a payoff even with lower magnification.

I picked this one up for less than $50. The sample doesn’t have the high polish that I like – the mineral grains show a bit of a ground glass texture – but there’s still plenty to see.

Two large blue euhedral olivine crystals in a one millimeter chondrule. The upper one appears hollow.
A one and a half millimeter porphyritic olivine chondrule with a dust rim. Here, also, many of the phenocrysts present well formed crystal faces.

Large, mostly pyroxene chondrule.
Contrast. A PO chondrule and a radial pyroxene chondrule – sometimes called an exocentric chondrule.
A variety of features hint at processes at work over time. By the way, we can't tell the full size of chondrules from just his one slide. These ARE just sections. If you have a two inch egg (or chondrule) and take a slice through the very end you will have just a tiny circle.
Part of a large complex chondrule at the edge of the sample shown with the polarizing filters in different positions. It highlights the fact that the orange features in the first picture are one related structure, a barred olivine chondrule, because they all go to extinction together.
In the center is a granular olivine chondrule with characteristic blebs of opaque material.
Up close it looks like it might have been hit from the lower left and shattered in place.

Closer yet. A cool view, I think.

- John
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<thead>
<tr>
<th>Date</th>
<th>Meteorite 1</th>
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<th>Meteorite 3</th>
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<td>1</td>
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<td>1894 Los Martínez</td>
<td>1910 Paitan</td>
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<td>1869 Krüherberg</td>
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<td>1981 Dushmani</td>
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<td>1925 Chaves</td>
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| 4     | 1910 Adhi Kot | 1939 Kendleton | 1947 Mike    | 1891 Papakha | 1976乾
| 5     | 1971 Anlong | 1948 Mardus | 1879 Drake Creek | 1890 Karakol | 1976 Junan |
| 6     | 1979 Cilins | 1829 Forsyth | 1846 Monty Milone | 1989 Bor | 1900 Felix |
| 7     | 1981 Ovost | 1872 Dyalpur | 19875 Bremervörde | 1894 Bor | 1976 Junan |
| 11    | 1981 monob | 1830 perth | 1858 Kakova | 1897 Meusebach | 1981 Samaria |
| 12    | 1981 Ovost | 1877 Hunga | 1889 Gadezafrei | 1897 Meusebach | 1981 Samaria |
| 13    | 1981 Ovost | 1990 Sterlitamak | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
| 15    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
| 16    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
| 17    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
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| 19    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
| 20    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
| 21    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
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| 23    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
| 24    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
| 25    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
| 26    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
| 27    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
| 28    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
| 29    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |
| 30    | 1981 Ovost | 1897 Meusebach | 1897 Meusebach | 1897 Meusebach | 1981 Samaria |

No Recorded Fall!!

Please Share and Enjoy:
Hour after hour, mile after mile, after nine days of hunting in between finds…

Greg Hupe finds his second Wisconsin meteorite on May 4, 2010. This one weighs 30.3 grams.
9.9 gram specimen from The Darryl Futrell Collection of Tektites

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Once a few decades ago this opening was a framed window in the wall of H. H. Nininger's Home and Museum building. From this window he must have many times pondered the mysteries of Meteor Crater seen in the distance.

Photo by © 2010 James Tobin