

April 2021



# OCMS SHALE MAIL



**Join us for our monthly meeting via zoom on April 9<sup>th</sup>, 2021 at 7:30 pm. As you can see it's a good time with exceptional visuals so pull up your couch, make a coffee and join us for a little rock hound socialization. Look Ron even brought the donuts!**

**SEE YOU ALL THERE!**



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## Mailing Address:

254 Rt. 17K, Suite 204, Newburgh, NY 12550-8300

# President's Message!

Mike Tedford

**Schedule updates:** We will be holding zoom monthly meetings in April and May at 7:30 PM. **Thank you Mark** for your hosting of our zoom meetings and great lectures. We will not hold a May clean up-barbecue at Museum Village. The weekends are booked there in May. Our mineral show clean-up and preparations on site will take place Friday June 4. We need extra volunteers before and during the show.

**8 weeks to go for our 2021 mineral show!** The most scenic outdoor setting for our annual mineral, fossil and jewelry show June 5 and 6 at Museum Village.

Our treasurer and mineral show chairman, Ron Nelson, held a meeting to update and hold discussions March 27. Many of the preparations are similar to our 2019 show and those that were underway for 2020.

We will limit the vendor totals to 66, observing space and parking limitations.

**Our volunteers will escort vendors to assigned locations on a first come first served basis directed by Ron Nelson at the gate.**

We have a list of extra supplies needed for COVID 19 precautions.

Ticket and table prices will remain the same this year and we will consider raising prices next year.

We expect the museum cafeteria and the Village Hands restaurant next door will be open during our show.

**We need to have volunteers at the admissions and membership tables run by Brigitte and Fran.**

We also need to confirm our signs and other supplies will be ready.

**Members are encouraged to post announcements to their facebook pages and like our OCMSNY FB page.** Please take an op-

portunity to tour our website- **Thank you Heather-** and FB page. See you Friday for our regular business meeting and a lecture by Geologist Dr Alex Bartholomew.



*I hope you all  
had a glorious  
Easter Weekend!*

# Zoom April 9<sup>th</sup> @ 7:30 pm!

With Alexander Bartholomew

## **"REVISION AND CORRELATION OF UPPERMOST SILURIAN STRATA IN NORTHEASTERN NEW JERSEY AND SOUTHEASTERN NEW YORK"**

The uppermost Silurian stratigraphy of southeastern NY (Port Jervis to Kingston) and northwestern NJ (PA to NY), though more than adequately described, remains confusing and altogether rather poorly understood in relation to the details of stratigraphic nomenclature and correlation. Much of the confusion and miscorrelation stems from a paucity of exposure and relatively rapid facies changes between scattered outcrops. Recent examination of existing outcrops and reevaluation of historic and modern literature, with a focus upon setting the stratigraphic units into a broader regional framework, has resulted in the opportunity to revise stratigraphic nomenclature to reflect a better understanding of the relationships between the various units through this interval.

In northwestern NJ and southeastern NY, the stratigraphic sequence for this interval consists of, from bottom to top, the Poxono Island, Bossardville, Decker Ferry, Rondout, and Manlius formations. In the area between Accord and Kingston NY, the stratigraphic sequence consists of, from bottom to top, the High Falls, Binnewater, Rondout, and Manlius formations. Confusing stratigraphic issues include the members of the Rondout Fm. between NJ and NY, where strata traditionally referred to the lowermost Manlius Fm. in the Hudson Valley area of NY are included within the uppermost Mashipacong Mbr. in NJ.

Herein it is proposed to geographically extend the term Poxono Island Fm. north to the vicinity of Kingston to include all of the strata between the Shawangunk Fm. and the Rondout Fm., with various preexisting formation-level

units in this interval transferred to the member level within the Poxono Island Fm. This is proposed in order to redefine the Poxono Island Formation as an allostratigraphic unit comprising the facies mosaic of time-equivalent units between the Shawangunk and Rondout formations. Additionally, it is proposed to transfer the uppermost strata of the Mashipacong Mbr. to the Manlius Fm. and to apply the name Mashipacong only to the lowermost strata of the Manlius Fm. in NJ and extend it north into NY. Further discussion of stratigraphic revision within the lowermost Manlius Fm. and regional correlation will be included. It is hoped the revisions suggested herein will act to simplify, not further confound, our understanding of this interval.



## Minutes March 12<sup>th</sup>

John Pacut

**Business Meeting:** Mike Tedford brought the meeting to order on March 12<sup>th</sup> Minutes were approved as written in the Shale Mail.

**Treasurer's report:** The fee has been paid for Mindat, insurance and speakers fees. The treasurer's report was accepted by all.

**Programs:** will continue via Zoom, however there is light at the end of the tunnel now that vaccines are getting into arms much quicker.

**Presentations:** Mark has a really interesting line-up for most of the year. May 14<sup>th</sup> Ted Johnson will be our speaker. I am currently unsure of the topic but he is always an awesome presenter regardless of the topic, so come join him!

**Show Report:** Ron now has the show signs, cards & fliers. If you need some to distribute please contact him about arrangements to pick them up. Mike will contact the Board of Health to see if they have PPE to contribute to our show. We will be practicing social distances, wearing face masks & using hand sanitizer. Vendors need to be vigilant concerning these practices.

**Membership Report:** Mike is looking for someone to design a new membership brochure.

**Shale Mail Report:** Alison is looking for articles from members & Officers on any topic.

**Field Trips:** We are hoping to hold field-trips by July depending on Covid numbers. Derek has offered to lead a trip to Big Brook.

**New business:** Adjourn business meeting: Motion and accepted.

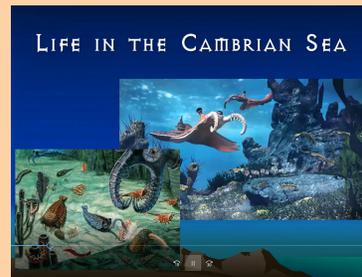
## Life's Great Start!

Article by: Alison Pacut



Derek did it again, this was the best presentation yet of his series. Thanks Derek for all the work you put into these presentations!

The Precambrian period ended about 541 million years ago thus beginning the Cambrian era. Most of the animals that existed during the Precambrian period died out during the Ediacaran, like the Dickinsonia. This ending of life was the beginning of life for a whole new group of animals. The animals and their evolution was the focus of Derek's presentation.



Scientists pretty well know what the animals looked like in the Cambrian Period. Derek gave us a view of the Cambrian Sea with all the animals swimming around.

Most of the data that we know about the animals from the Cambrian period came from the Burgess Shale in British Columbia, Canada. Burgess



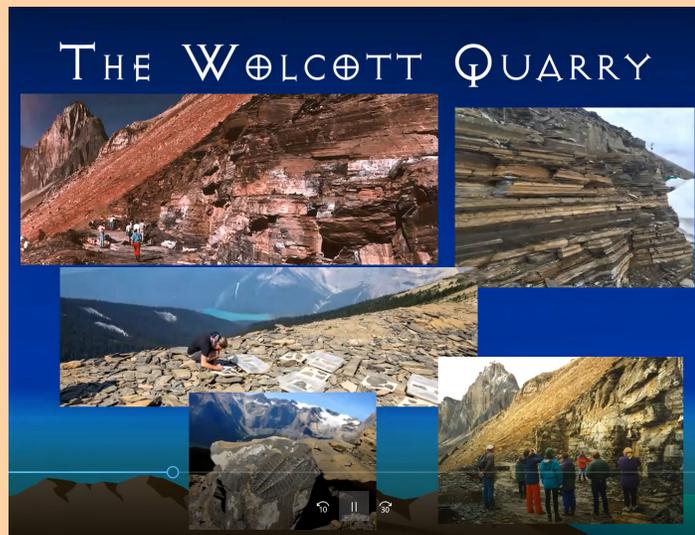
Shale is a type of Lagerstätten. The only way into the site is a twenty-two mile hike. Walcott Quarry lies on a mountain ridge within a restricted UNESCO World Heritage Site in Yoho National Park, British Columbia, Canada. It is not possible to visit the Burgess Shale located here on your own – the area is only accessible on a guided hike led by Parks Canada or the Burgess Shale Geoscience Foundation.

# Life's Great Start!-cont.



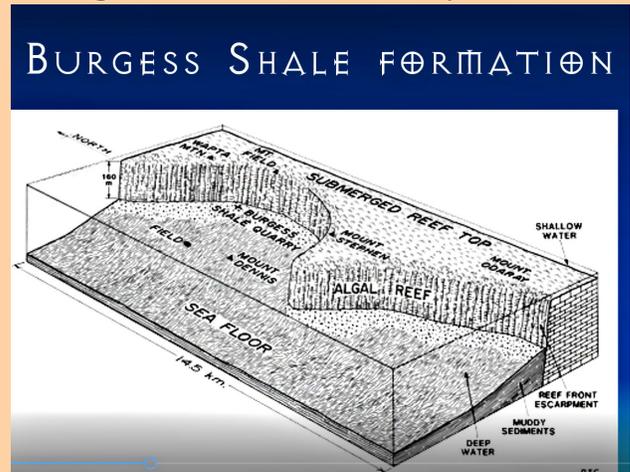
Charles Doolittle Walcott became famous for his discovery in 1909 of well preserved fossils, including some of the oldest soft part imprints in the Burgess Shale of British Columbia Canada.

What a lucky find! While fossil hunting, Walcott was riding his horse along a trail in the Canadian Rockies. Earlier there had been a rockslide that blocked the trail. He dismounted to clear the rocks from the trail but found fossils.



Walcott and his family began fossil collecting at the Burgess Shale on his summer vacations.

The Burgess Shale is 508 million years old.



But, why was the Burgess Shale so good at preservation? The reason is because the animals you see in these layers didn't live there but they did die there. They lived up on the reef in the shallow water. Landslides would carry the animals to the deep water and down onto the sea floor, which does not contain much oxygen allowing for decay. Also, the sediment grains on the sea floor were very very fine.



The opabinia has a proboscis coming straight out of its head with a claw like structure probably for feeding. Opabinia had five compound eyes, which it needed to spot other prey and predators. This animal has no modern progeny because animals today don't have five eyes. It also had fins on the bottom of its body that it used for locomotion.

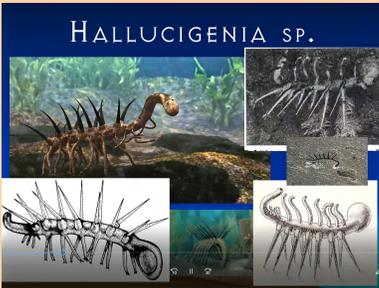


The marrella is a soft shelled arthropod and may have been related to trilobite. Derek is not sure if it was

# Life's Great Start!-cont.

considered a trilobite but it does look like one.

The only problem is the marrella has no hard shell on it. These fossils are common in the deposit at the Burgess Shale. The Upper Left and the upper right are from the Smithsonian. The Upper and bottom middle pictures are from Derek's collection.



The hallucigenia got its name because it was so bizarre. They thought it was a hallucinogen because there was no way of telling which end was up or which end was down

or which end was the head or which end was the tail. If you look closely at the artist's depictions you will notice that the pointy leg like structures are up in one and down in the other. The same fact is true for the tube like structures. The top right picture is the fossil. This animal is only about an inch long.

The pikaia is perhaps one of the most important animals. Why? Because this is probably our oldest direct ancestor. They



found really good preserved ones and found it probably had a notochord similar to lamp rays. A notochord is like a long rod that is the size of its body that would evolve into our spinal column. It was a worm like animal that would swim around like a leech or an eel. It had two antenna like structures on top of its head and whisker like things on the bottom of its head with long muscular body flagellum. If it wasn't for the pikaia surviving the Cambrian explosion we might not be around!

The wiwaxia is sort of a sea slug but it has these feather like projections on it. It lived on the sea floor and ate organic goo from the bottom of the sea. The feather like structures



were probably breathing apparatus used to extract oxygen from the water. The fossil picture is in the collection of the Smithsonian.



There was a strange fossil found at Burgess Shale that looked like a shrimp tail. They are relatively common but have never been found with

the head attached, so scientists named it strange shrimp?

They also found what looks like a pineapple ring. They thought maybe it was the head of a madussa or a jelly fish but if you look really close to the inside ring you will see tooth like projections. As far as Derek knows there are no jelly fish that have teeth.

On the bottom fossil in the picture, you can see the shrimp, then part of another shrimp, also the pineapple structure and the body of a larger entity to the shrimp are actually part of the larger animal. They look like the yellow bottom right photo. So, what they thought were strange shrimp were actually grappling hooks and the pineapple was the mouth of the same creature.

This is the opabinia's large predator, it's a six foot long predator with complex compound eyes similar to a dragon fly. This predator is called anomalocaris canadensis!

# ZUNI PUEBLO JEWELRY

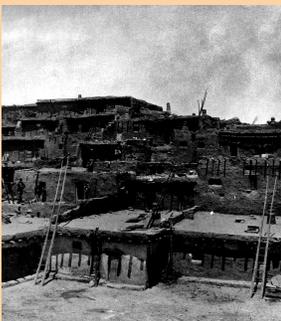
By: Kieth Allen

The Zunis are famous for a particular type of stonework called inlay. Here stones are worked and then fit together, sometimes side by side, called stone-to-stone, or with silver channels in between, known as channel inlay. The Zunis do not cast the silver. Each piece is meticulously fabricated. The predominant colors and stones used in traditional Zuni inlay are turquoise, red coral, black jet, and white mother of pearl. Symbolically, red represents Mother Earth and turquoise Father Sky. The black and white of the other stones is a further representation of dualities. Other stones that may be used in Zuni jewelry are pink coral, abalone, green snail shell, orange or purple spiny oyster, melon shell, and fossilized ivory. Most materials used in Zuni fetishes and jewelry are not indigenous to Zuni Pueblo.



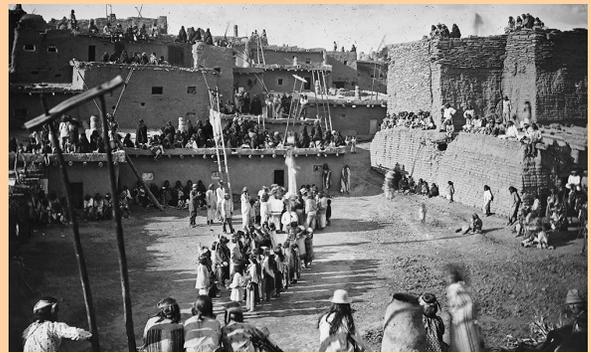
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The ancient homelands of the Zunis are along the middle reaches of the Zuni River where their cultural ancestors lived for centuries. Near the settlements and villages left by the ancient people, the Zuni Indians built compact villages of multi-storied houses. These were the towns seen by Coronado and his men and called them “Seven Cities” in the land of Cibola. The mythical Seven Cities of Cibola (Spanish word for “buffalo”) lured Coronado to the southwest in



1540, in a treasure quest.

For the last three hundred years, most of the Zunis had lived in a single village, the Pueblo of Zuni. Within the boundaries are smaller farming villages at Pescado, Nutria, and Ojo Caliente, which were established in the eighteenth century but which in more recent years have been occupied only during the time of planting and harvest. Beyond the boundaries of the reservation,



there are ancient sites and areas, sacred points and shrines, and places of pilgrimage central to Zuni life and history.

Their tribal name is A’shiwi (Shi’wi), meaning “the flesh.” The name “Zuni” was a Spanish adaptation of a word of unknown meaning. The Zuni speak their own unique language which is unrelated to the languages of the other Pueblo peoples and continue to practice their traditional shamanistic religion with its regular ceremonies, dances, and mythology.



# ZUNI PUEBLO JEWELRY-CONT.

The **Zuni** Indians are located just south of the Navajo Indian Reservation which is about 32 mile S.E. of Gallup New Mexico. **Zuni Jewelry** began around 1880 when the Navajo Silver-smiths taught them the trade. The original Zuni Jewelry was similar to Navajo Jewelry until they started working with Turquoise and creating Zuni Turquoise Jewelry. The Zuni took to lapidary work and began incorporating Turquoise in very unique designs into their Jewelry.

There are three major styles of Zuni Jewelry that have been being made since the 1920's, **Zuni Needlepoint Jewelry**, **Zuni Petit Point Jewelry** and **Zuni Inlay Jewelry**. Zuni Needlepoint is as in the Turquoise Bracelet below on the left, the Zuni cut individual stones in the shape of the eye of a needle and then design creative clusters of stones to create their Jewelry. Zuni Petit Point Jewelry is as in the Bracelet below to the right where the stones are cut into various shaped tiny stones such as round, oval, pear, square and rectangles and then set into handcrafted Sterling Silver Zuni Jewelry designs. Zuni Inlay Jewelry is as in this photo below, sterling silver Jewelry items are made with channels to glue precut and specifically shaped stones



into, this is called inlaying. The stones are ground, sanded and polished to finish individual pieces of Zuni Inlaid Jewelry.

Not all Native Americans make silver and turquoise jewelry. The Indians in the Southwest who are especially known for their jewelry are the Zuni, Hopi, and Navajo peoples. The Zuni are known for their very intricate stonework and almost never do plain silver jewelry. The most traditional Zuni style of jewelry is called petit point,

which can be identified by tiny turquoise stones each supported in its own bezel, or metal "sleeve." It is extremely time-consuming work and is very delicate in appearance. The Zunis are known for using sterling silver and natural turquoise from the Sleeping Beauty Mine. The work is priced by the amount of handiwork, not the weight of the silver or the value of the turquoise.



# Gem Shows Are Coming!

## New York Southern Tier Geology Club Show - 04/10/2021

**Start Date:** 04/10/2021

**End Date:** 04/11/2021

**Contact:** Thomas Ogden

**Contact Phone:** (607)-226-2319

**Venue:** Johnson City Senior Center

**Address:** 30 Brocton Ave

Johnson City Senior Center

Johnson City, NY 13790

**Website:** <http://www.facebook.com/pages/category/Non-profit-Organization/New-York-Southern-Tier-Geology-Club-571826199572927/>

## Orange County Mineral \* Jewelry \* Gem \* Fossil Show - 06/05/2021

**Start Date:** 06/05/2021

**End Date:** 06/06/2021

**Contact:** Ron Nelson

**Contact Phone:** 914-850-2486

**Venue:** Museum Village

**Address:** 1010 Route 17 M

Museum Village

Monroe, NY 10950

**Website:** <https://www.orangecountymineralsocietynewyork.com/>

## 20<sup>th</sup> Annual Mineral and Gem Show Saturday, June 26, 2021 9 am-4 pm

Sponsored by the Connecticut Antique Machinery Association, Inc. and the Danbury Mineralogical Society to benefit the Connecticut Museum of Mining and Mineral Science.

To be held at the museum grounds of the Connecticut Antique Machinery Association, 1 mile north of Kent, CT on Route 7.

Rocks, minerals, fossils, jewelry for sale and trade. Tour the new exhibits in the mining museum. Free admission for visitors. **New vendors welcomed. RAIN OR SHINE.**

For additional information check our website at [www.ctamachinery.com](http://www.ctamachinery.com) or call (860) 927-0050

## Gilsum Rock Swap and Mineral Show - 06/26/2021

**Start Date:** 06/26/2022

**End Date:** 06/27/2022

**Hours:** Sat 8:00-6:00 Sun 10:00-5:00

**Show coordinator:** Rob Mitchell

**Contact Phone:** (603) 357-9636

**Contact email:** [gilsumrocks@gmail.com](mailto:gilsumrocks@gmail.com)

**Venue: Address:** 640 Route 10, Gilsum, NH 03448

**Website:** <http://www.gilsum.org/rockswap>

## Gem & Mineral Society of Syracuse Show - 07/09/2021

**Start Date:** 07/09/2021

**End Date:** 07/12/2021

**Contact:** Dick Lyons, President

**Venue:** Center of Progress Building New York State Fair

**Address:** 575 State Fair Blvd

Center of Progress Building New York State Fair  
Syracuse, NY

**Website:** <http://gmss.us/>

## Herkimer Diamond Gem Show & Festival - 07/17/2021

**Start Date:** 07/17/2021

**End Date:** 07/18/2021

**Hours:** Sat 9:00-6:00 Sun 10:00-5:00

**Contact:** Billie Jo Muller

**Venue:** Herkimer County Fairgrounds

**Address:** 135 Cemetery St

Herkimer County Fairgrounds

Frankfort, NY 13340

**Website:** <http://www.herkimergemshow.com/>

OCMS members are covered by Society-sponsored insurance.

**OCMS Disclaimer**

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**Orange County Mineral Society, Inc. Officers:**

President:	Mike Tedford	(845) 542-6441	<a href="#">Click to email Mike</a>
VP/Programs:	Mark Kucera	(914) 423-8360	<a href="#">Click to email Mark</a>
2 <sup>nd</sup> VP:	Alex Kerstanski	(845) 978-4141	<a href="#">Click to email Alex</a>
3 <sup>rd</sup> VP:	Ryan Richardson	(845) 629-5120	<a href="#">Click to email Ryan</a>
VP Emeritus/Historian:	Frank Clyne	(845) 361-4710	<a href="#">Click to email Frank</a>
Treasurer/Facebook:	Ron Nelson	(845) 469-9080	<a href="#">Click to email Ron</a>
Min.Show Chairman:	Ron Nelson	(845) 469-9080	<a href="#">Click to email Ron</a>
Membership Com Chair	Brigitte Nesteroke	(845) 386-4119	<a href="#">Click to email Brigitte</a>
Secretary:	John Pacut	(845) 883-0019	<a href="#">Click to email John</a>
Shale Mail Editor:	Alison Pacut	(845) 883-0019	<a href="#">Click to email Alison</a>
Webmaster:	Heather Shields	(845) 649-9623	<a href="#">Click to email Heather</a>