# The Trilobite



### Wisconsin Geological Society

March 2021

#### NEXT WGS MEMBERSHIP MEETING Monday, March 8, 2021

**Pierre** will be hosting our zoom meeting on March 8, 2021 at 7:00PM. The club authorized him to purchase the license. Hopefully our technical issues are behind us. A week before the meeting he will send out the invitation with the link and password.

As usual, people are allowed to enter 15 minutes prior to the start time.

If you are not yet setup to use Zoom, you can download the app at zoom.com You will need a camera on your computer as well as speakers. It is easy to setup and test ahead of time. Just make sure you have audio and visual set on after you enter the meeting.

Members DO NOT NEED A CAMERA on their computer in order to join the ZOOM WGS Meetings. Folks without a camera can join a meeting, they can see and hear everyone else, they can also be heard, everyone with a camera just can't see them. All that appears in their attendance square is their name.

There is a lot on information on the web on how to setup and use zoom. Just google zoom.

If you get the Trilobite by mail and would like to be included in the zoom meeting, send me an e-mail and I will put you on the zoom invitation list. If you get the Trilobite by e-mail you are already on the list.

On our last zoom meeting we discussed various options for our show in May. Most everyone would like to have a show even if Co-Vid requires a change from our normal venue at Hart Park.

If the show is to be held as normal at Hart Park, we will have to wait a while and see what occupancy requirements come with the facility as we get nearer our usual date. We may have to impose limits on the number of vendors or on the number of people allowed inside at one time.

The other option we are exploring is having an outdoor rock-swap type setting. The best location for that at present would be at one of the State Fair parking lots. We would probably charge the dealers for space but have free admission. We would also make money by selling the rocks that we have received as donations from various sources. Weather is always a consideration for these outdoor settings and something we would just have to deal with.

We also discussed changing the date to later in the year. Have no idea how this would work out.

#### WGS Minutes, February 8, 2021

Online Zoom Meeting

The business meeting was called to order at 7:12PM by our President, Pierre Couture.

Attendees: Barbara Brown, Pierre Couture, Mike Macali, Kitty Klein, Steve Klein, Judy Budnik, Sue Eyre, Paul Schmidt, Richard Hopefl, Don and Nancy Shervey, Steve Mayer, John Hammetter, Darin Dubinsky, Marilyn Smits, Sue Robinson, Dave Okruhlica family, Will and Laura Barreto, Chuck Riel, Chris Nohl, Rebecca Schmidt, John Gazvoda, and Jody Rymaszewski

The minutes of the January meeting were printed in *The Trilobite*. Sue Eyre made a motion to accept the minutes as published. Another seconded. The minutes were approved.

New Memberships: none Guests: none

Treasury Report: Christopher Nohl read the Treasurer's Report. A member made a motion to accept the Report for audit for amendment on the Show cash drawer amount. Another member seconded. The motion was approved.

Committee Reports:

Show:

We did some research on possibly holding an outdoor Show. We discussed State Fair Park as a possibility. Serb Hall parking lots, a closed Pick N Save lot, and Hart Park parking lots will also be researched. Are permits required? Changing date of Show discussed. Is there a fee for parking?

Newsletter: nothing Lapidary: nothing Mineral & Fossil Study Groups: nothing Field Trips: nothing Junior Rockhounds: nothing Sunshine: nothing

Unfinished Business: None

New Business:

A member made a motion to reimburse Pierre Couture for hosting the Zoom meetings/Zoom account. Another member seconded it. The motion was approved

Announcements: No announcements. Door Prizes: No door prizes.

Adjournment: A member made a motion to adjourn. Another member seconded. The motion was approved. The meeting adjourned at 8:11PM

Barbara Brown, WGS Secretary

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#### **CALENDAR OF EVENTS**

The Midwest Federation website has an extensive calendar of shows and activities throughout the Midwest. http://www.amfed.org/mwf/Calendar/calendar.html

An extensive list on mineral shows is also at: http://www.the-vug.com/vug/vugshows.html

The Badger Lapidary & Geological Society's web page still lists their show dates as March 27 & 28, 2021 with more information coming soon. Best to keep checking their website.

As of right now, the 2021 MWF Convention is to be held in Toledo, Ohio in September.

#### Kettle Moraine Geological Society Annual Show has been cancelled.

Link to our face book group page: https://www.facebook.com/groups/826534338175873/?ref=share

From Pierre Couture

Has COVID got you down? Can't get out to enjoy the rocks. Here's something to tide you over until the world returns to normal.

**Nick Zentner** teaches geology at Central Washington University. He has a great online presence and over 100 videos dealing with the geology of Washingon state such as; Ellensburg Blue Agates, Liberty Gold, Ghost Volcanoes, Earthquakes, Supercontinents, Grand Coulee, and many more. He has an excellent demeanor, he's funny, and you will come away with a wealth of geological information after watching one of his videos. As an added bonus, he was born in Wisconsin and got his BS in geology at UW Madison in 1986. check him out on Youtube or PBS. If you can catch him live, you can chat questions to him as well. He's fun to watch and you can learn a lot or just marvel at the geology.

https://www.youtube.com/channel/UC4szl4Ra1ZD3m80wJP40UBA

https://www.pbs.org/show/nick-rocks/

http://www.nickzentner.com/



#### WGS Members, Please Note:

#### Your Membership Dues are renewed in November.

\$15.00 Single Membership, \$20.00 Family Membership

Please remember to send your check to Club Treasurer Christopher Nohl, 3240 N. Summit Ave , Milwaukee 53211

#### **Bench Tips by Brad**

When cutting sheet metal, it's quicker and easier to use a set of shop shears as compared with using a hand saw. The cut is not as precise, but many times you don't need that. Shears will easily cut up to 24 gauge sheet, and some will cut 22 or even 20 gauge.

Current prices for shears run from \$13 - \$36 in jewelry catalogs, and the Joyce Chen scissors recommended on some jewelry blogs run more than \$20. But we found a cheaper alternative at the 99 Cent Store - some gardening utility scissors that were only \$1.07

I buy a half dozen of them at a time for use in my jewelry classes. They're great for cutting bezels, trimming around a bezel cup and cutting a piece off a larger sheet.



See all Brad's jewelry books at Amazon.com/author/Bradfordsmith

www.BradSmithJewelry.com



#### March 2021

**The Trilobite** 

A **hoodoo** (also called a tent rock, fairy chimney, or earth pyramid) is a tall, thin spire of rock that protrudes from the bottom of an arid drainage basin or badland. Hoodoos typically consist of relatively soft rock topped by harder, less easily eroded stone that protects each column from the elements. They generally form within sedimentary rock and volcanic rock formations.

Hoodoos are found mainly in the desert in dry, hot areas. Hoodoos range in size from the height of an average human to heights exceeding a 10-story building. Hoodoo shapes are affected by the erosional patterns of alternating hard and softer rock layers. Minerals deposited within different rock types cause hoodoos to have different colors throughout their height.

Hoodoo formations are commonly found on the Colorado Plateau and in the Badland regions of the northern Great Plains (both in North America). While hoodoos are scattered throughout these areas, nowhere in the world are they so abundant as in the northern section of Bryce Canyon National Park, Typically, hoodoos form from multiple weathering processes that continuously work together in eroding the edges of a rock formation known as a fin. For example, the primary weathering force at Bryce Canyon is frost wedging. The hoodoos at Bryce Canyon experience more than 200 freeze-thaw cycles each year. In the winter, melting snow, in the form of water, seeps into the cracks and then freezes at night. When water freezes, it expands by almost 10%, prying open the cracks bit by bit, making them even wider, similar to the way a pothole forms in a paved road.

In addition to frost wedging, rain is another weathering process causing erosion. In most places today, rainwater is slightly acidic, which lets the weak carbonic acid slowly dissolve limestone grain by grain. It is this process that rounds the edges of hoodoos and gives them their lumpy and bulging profiles. Where internal mudstone and siltstone layers interrupt the limestone, one may expect the rock to be more resistant to the chemical weathering because of the comparative lack of limestone. Many of the more durable hoodoos are capped with a special kind of magnesium-rich limestone called dolomite. Dolomite, being fortified by the mineral magnesium, dissolves at a much slower rate, and consequently protects the weaker limestone underneath it. Rain is also the chief source of erosion (removing the debris).



Info from wikipedia.org

Plateau



Window

A.

Hoodoos



Bryce Canyon Utah

Plate Tectonics and the Honeyeater Basalt of the East Pilbara Craton

The beginning of plate tectonics has become a little more clear due to recent studies of rocks found in the Pilbara Craton of Western Australia. The rocks found here are part of an old and stable part of the continental lithosphere.

The continental lithosphere itself, is composed approximately of a 20- to 35-mile layer of light granitic crust underlain by a 60- to 80-mile layer of heavy mantle peridotite (an olivine-, pyroxene-rich rock). These layers together form a tectonic plate. Craton is the terminology used to designate the geological core of a continent. It constitutes a large, stable segment of the earth's crust around which a continent forms.

Recent research on the Honeyeater Basalts of the East Pilbara Craton in Western Australia uncovered some evidence that the actual point in time when plates started moving is close to four billion years.

The Pilbara Craton is one of the most pristine Archean cratons in the world. It gets this reputation because of the well-preserved granite-greenstone terranes found in the eastern part of the Craton. Because much of the original rock fabric is relatively undeformed, geologists study these rocks for insights into conditions on the early earth. So, these rocks provide a lens for viewing our planet some 3.5 billion years ago. Researchers recently drilled into part of the Pilbara Craton and collected magnetic data from a formation named the Honeyeater Basalt. The data showed that when these basalts formed some 3.2 billion years ago, the Craton was in motion. The data indicate a drift rate of 2.5 centimeters per year. Since this rate is similar to continental drift rates today, plate tectonics is a likely explanation for this motion.

Differing magnetic inclinations between younger and older basalts indicate a change in latitude. This change is a direct indication that the spatial location of the basalts was moving over time with respect to the poles. Because individual volcanoes are spatially fixed in relation to the land around them, any lateral movement means that the continental crust below them is drifting.

Magnetism from the Honeyeater Basalts points to the Pilbara Craton as an early mover in the plate tectonics dance. It is an indication that continents started drifting very early in the earth's history. But it is only an indication, not proof. Additional work is needed to build confidence in the "early drift" model.

The Pilbara Craton is one of two pristine Archaean (3.6–2.7 billion years ago) crusts that have been identified on the Earth. The other is the Kaapvaal Craton in South Africa.

archeanweb.com, geologyin.com, wikipedia.org

Prof. Roger Fu, an author on the study, poses on an outcrop of the Honeyeater Basalt in Western Australia's Pilbara Craton

Credit: Alec Brenner, Harvard University.



Wisconsin Geological Society, Inc

# The Trilobite

Official publication of	Wisconsin Geological Society, Inc	
The Wisconsin Geological Society Inc.	Committee Chairpersons:	
The Trilobite is published monthly, except for the months of July and August. It is mailed without further charge to the members of the Wisconsin Geological Society Inc. Subscription fee to non-members is \$10.00 per year.	All-Amer Club EntryBarbara Brown;:414-258-5761UW-Milw Liaison:Jody Rymaszewski: 414-771-478Field Trips:John Hammetter: 414-444-5973Historian:Jody Rymaszewski : 414-771-477Junior Rockhounds:Denise Hohenfeldt: 414-442-561MWF Liaison:Jody Rymaszewski : 414-771-478Nominations:Kitty Klein (3 yrs)	30 80 8 30
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<ul> <li>The Purpose of the Wisconsin Geological Society, Inc is to:</li> <li>Create an interest in the study of Geology</li> <li>Provide a means for personal development in Geology.</li> <li>Disseminate knowledge concerning all phases of Geology.</li> </ul>	President:         Director (2022)           Pierre Couture         Bob Schmidt           1001 S. 97 <sup>th</sup> St         Bob Schmidt           West Allis, WI 53214         New Berlin , WI 5315           414-475-0186         262-844-5404           Vice President:         Director (2021)           John Hammetter         Steven Mayer           2507 N. 61st St.         1556 Blackfoot Drive           Milwaukee, WI 53213         Grafton, WI 53024           414-277-7321         414-277-7321	1
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March 2021 Volume 77 Number 3

# FIRST CLASS

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