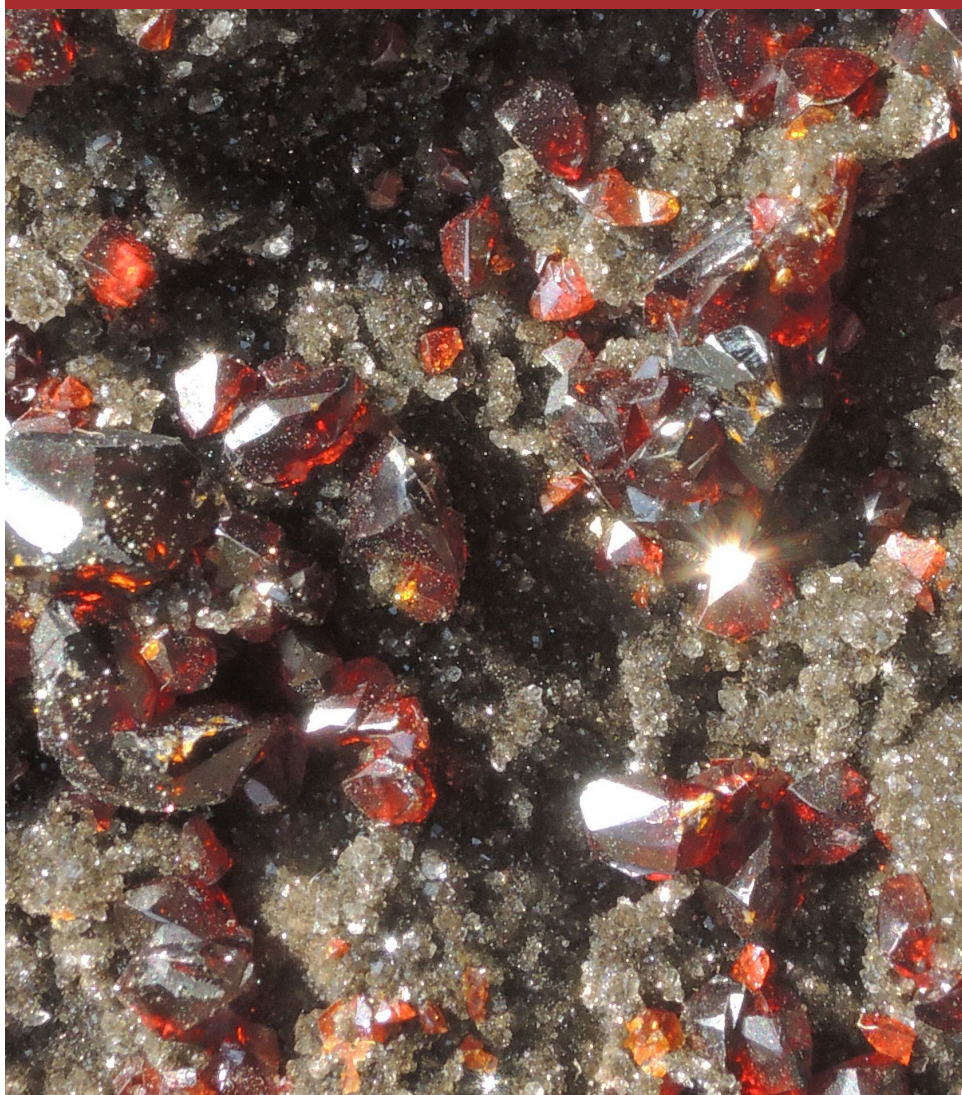


THE BACKBENDER'S GAZETTE

NEWSLETTER OF THE HOUSTON GEM & MINERAL SOCIETY



FOCUS STACKING PHOTOGRAPHY

SEE MORE ON PAGE 11



VOLUME LXVIII

HGMS | HOUSTON GEM & MINERAL SOCIETY

NOVEMBER 2020

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BACKBENDER'S GAZETTE SUBMISSION DEADLINES

Articles are due on the 15th day of the month before the date on the BBG issue.

Copy is due for the next issue by the 15th of this month. Email content to editor@hgms.org



The BACKBENDER'S GAZETTE



The Newsletter of the Houston Gem & Mineral Society

PRESIDENT'S MESSAGE

by Sigrid Stewart

Well, Covid-19 is still with us and cases are going up, so I am satisfied with our decision to cancel our Annual Show and prepare a Virtual Show. Why should we bother, you might ask? The Show Committee talked about this, and after determining that the pandemic posed an unacceptable risk both to volunteers and the public, we decided that a virtual event would let us continue to publicize our club by offering some of our dealers an opportunity to offer rocks, minerals, fossils and jewelry for sale. It also provides us an opportunity for educational outreach to the public in keeping with our Mission Statement. This type of event, which people are becoming increasingly familiar with, will allow us to increase our presence in the online world. We will be increasing our Social Media advertising and updating our web site until the day of the show. Let's get onboard and be ready to participate!

VICE PRESIDENT'S MESSAGE

by Michael Sommers

Upcoming Program: We are going to have a program by the German museum in Freiburg. They created an exhibit of minerals and the insects that look like the mineral. We all knew that the Germans have a wonderful eye for minerals and now we find they must also like BUGS! They created a powerpoint slide show for their exhibit which Inda found on the the web and Mike agreed we need to see. Here is the slide for moonstone and Morpho butterflies.



SECTION REPORTS

ARCHAEOLOGY SECTION

by Nancy Engelhardt-Moore

October 1, 2020: The Section hosted its first virtual Zoom program, since the HGMS Clubhouse is closed due to the pandemic. Bob Moore, Section Chair, called the meeting to order at 7:37 PM. He announced the upcoming virtual programs, and said officers will be elected at the next meeting November 5.



*Roman medical instruments: 1st to 3rd Century AD
Photo by N. Engelhardt-Moore*

Bob then presented “Lost Ancient Greco-Roman Medicine” and showed actual Roman medical instruments (see photo). This was followed by Q&A with many questions. We had a record turnout of 34 attendees, and we received many positive comments! The meeting adjourned at 8:25 PM. Please watch for announcements about our virtual programs. We hope to see you online.

If you have a suggestion for a future lecture, please let us know at Archaeology@HGMS.org. Thanks!

UPCOMING PROGRAM

November 5, 2020: The Section will host a virtual meeting through Zoom. Following a short business meeting, Bob Moore will present: “Egypt: The Dendera Temple Complex.” He will show photos taken by his wife, Nancy Engelhardt-Moore, during their 2007 trip to Egypt. They were able to visit the entire Dendera Temple Complex that contains the Temple of Hathor. Today, gaining access to The Complex is difficult, so don’t miss this educational event.

December 3, 2020: Special guest, Bob Dodge, Founder and Executive Director of Artemis Gallery, will do a virtual presentation through Zoom entitled “Is It Ancient or Not? How Science Can Tell.” He will show how X-Ray Diffraction (XRF) technology helps authenticate whether artifacts made of gold, silver and gemstones are really ancient. During Bob’s lecture, he will demonstrate using actual artifacts and show the results of the analyses. For a preview, watch Bob authenticate a rare, one-in-a-million Anglo-Saxon helmet on Pawns Stars using a XRF portable gun. Go to <https://www.artemisgallery.com/pawn-stars>. This will be a fascinating talk, so mark your calendar.

January 7, 2021: Program—to be announced; our guest lecturer will be Dr. Dirk Van Tuerenhout, Houston Museum of Natural Science Curator of Anthropology. Please watch for further details about our programs on the HGMS Web site, in the BBG, and on Facebook.

PASSING OF BRIAN HOSINGER

Brian was born in Barber's Hill near Liberty Hill, Texas in 1940. His father was born in Michigan and came down for the oil business. The location of this town was later moved due to the presence of minable salt beneath the town. His mother was one of the Barbers and grew up in Texas. Brian loved to fish, something he enjoyed his whole life. He received his Bachelor's degree from Sam Houston State University which was also where he met his wife Nell, who passed away in 2015. He was in the Army Reserves and was on active duty for a short time. For most of his career he was an Insurance Adjustor, but he also had a small plane he enjoyed flying and for a while he owned a small shop specializing in airplane parts. Before he passed away, he was able to spend some time in Colorado with family members. He was an HGMS member for many years and enjoyed going on field trips.



Brian Hosinger

From Brian's son Kenneth and daughter-in-law Michele:

Dear friends and family – We are sad to share that Brian passed away on Sunday, August 2nd. He was suffering from congestive heart failure and died in his sleep at home. While it was not unexpected, we are sad to lose him all the same. We know that he touched many of your lives and hearts and that all of you touched his in some way as well. We have tried to call and personally let many of you know and we intend to continue reaching out, so if this is how you are finding out, we sincerely apologize. At this time, we plan to have an informal, virtual memorial on Sunday, 8/9, at 3PM CST / 2PM MST. If you want to participate in this, please send Michelle Clay Honsinger a message through Facebook with your email address. This will be an opportunity to share our stories about Brian. We also intend to do a memorial sometime in the spring or summer next year in Texas when it is safe to gather in large groups again and then spread his ashes. We will reach out to all of you to let you know more information about that in the future. For now, we would like to invite everyone to share pictures, stories and memories that you have about Brian to his Facebook page. We will all enjoy reading them and be able to cherish our memories of him. He was a beloved father, husband, friend and “PawPaw” and he will be missed. He is survived by his son Kenneth and Kenneth’s wife Michele, and their daughter Eva, and his “other son” Mark Baker, whom he met through the Big Brother association, and Mark’s children, Kelly and Hunter.

Brian Honsinger was a good man and a great field trip member.

Brian was dying when he called me up to say goodbye. He said that he wanted to put his affairs in order and say goodbye to the people who were important to him. We talked for a while and then he said he had some more people to contact. What an organized man. I did not realize that his end was so close, or I would have told him that I greatly appreciated both Nell, his wife, and him on field trips. He was always good company and always had the best stories to tell. He could always be trusted to do his part. I think that is the best anyone can say of another. He was a major “doer” in virtually every HGMS activity.

One time, HMNS loaned us a replica of a Mastodon skull for the 2010 show but forgot to pick it up to get it back to the museum. Brian loaded it into his pickup and got it to the museum the next day, saving everyone's job. Look at his face and you can just hear him saying “Do I get to keep it for my trophy wall?”



Brian Hosinger outside Humble Civic Center with Mastodon skull replica (2010 HGMS Show)

Goodbye, I will miss him.

PASSING OF CAROLINE ELIZABETH FREDREGILL

We are sad to report that Caroline Elizabeth Fredregill passed away October 27th at age 90. She was the wife of Charlie Fredregill, who was recently the subject of a Featured Member article. She had been sick for a week and doing poorly for some time before that. Caroline grew up in Towanda, Pennsylvania, and had a Master's in Library Science. She was recruited to work in the library division of the University of Houston. Later she worked for the Texas Institute of Rehabilitation and Research, now part of Memorial Hermann. Charlie will miss her terribly and would welcome calls from friends (after 10:00AM please!) and even a visit, with a mask of course.

BOB MCNEIL - IN MEMORIAM

from Janice Feistel-McNeil

I wanted to let the HGMS know that my husband, Bob McNeil, an HGMS member, passed away on May 29, 2020, after an intense battle with pancreatic cancer. Bob was an avid collector of Rare Earth Minerals who also loved attending the Archeology section talks and exhibit trips to the Houston Museum of Natural Science.

As some of the HGMS members know, Bob worked at the Gulf Research center in Pittsburgh, and at the Gulf/Chevron Research center in Houston after the merger of Gulf into Chevron, and eventually retired after a long career at the Shell Research center and in Shell Unconventional Resources downtown. After retiring in 2009, mineral collecting became his passion; he traveled around the United States looking for items to fit into his collection.

In lieu of a traditional funeral or memorial service, I have started an endowment at his undergraduate institution, the New Mexico Institute of Mining and Technology, to fund the Robert McNeil Award for the CJ Keizer Chemistry Summer Assistantship. This award will allow the university to pay for the research work of a graduate student in the chemistry department each summer. Contributions can be made by choosing the Robert McNeil Award from the designation list at <https://advancement.nmt.edu/sslpage.aspx?pid=275>. By mail, contributions to NMT Foundation – Robert McNeil Award can be mailed to NMT Foundation, 801 Leroy Place, Socorro, NM 87801.

Bob felt his undergraduate work at NMT more than adequately prepared him for subsequent graduate work at the University of Illinois-Urbana, and the University of Tennessee-Knoxville. Because of Professor CJ Keizer at NMT, Bob had the opportunity to spend a semester at Argonne National Laboratory, and, because of Dr. Keizer, Bob went on to complete a master's degree in organic chemistry, followed by a PhD in physical (radiation) chemistry working on the early development of MRI technology for the evaluation of reactions. This award at Tech gives graduate students the opportunity to experience research early in their careers.

GEODES VERSUS VUGS

from Palomar Gem, others, via Glacial Drifter 11/2001, via The Roadrunner 06/2020

We all know what a geode is---a roughly spherical hollow rock lined with crystals. A vug is a roughly spherical cavity lined with crystals. But do you know the real difference in the structure between the two?

A geode has an outer shell or rind (like a melon) composed of chalcedony, which is harder than the host rock in which the geode formed. When the host rock weathers away, the geode is preserved intact due to its hard shell.

Vugs do not have the protective rinds that geodes possess. The crystals found in vugs are formed within a cavity in the host rock but unlike geode crystals, they are attached to the host rock itself. Therefore, vug crystals are destroyed when the host rock weathers through the cavity.

When weathering exposes a cavity and a rockhound happens to see it, the vug can be chiseled out. If an inch or two of the host rock is left around the cavity, the vug can be removed undamaged.

FEATURED MEMBER: GARY ANDERSON

by Gary Anderson



Gary Anderson

Hi! I am James Gary Anderson; I first heard of the club when I was living in the Bissonnet Plaza apartments in 1968. In those days, the meetings were held in Herman Park in the Rose Garden. I attended one but then waited a few years before looking into the club again. One old fellow there told me the club was worth millions of dollars. He was kidding me of course! At that time, they were trying to meet in a rented building on Bissonnet on the north side in a couple of small rooms. There was one 18" slab saw which was cared for by a tall old fellow named Tom (not Tom Wright). The club officers at the time, including Yvonne Dobson and her husband, a heart doctor, decided it was time for a bigger building. She talked John Culberson and Farrar Stockton (both accountants) into backing the club's purchase of the building we are currently residing in. The loan at the time was made at 12.25% interest.

In the new building the club paid this interest for 3-4 years with the profits from the annual show. The next president was worried about the debt and talked the club into having TWO shows one year. They were having two shows when I became president and in my first year, we had two shows. This was straining the club volunteers, so in my second year we dropped back to ONE show per year. In the meantime, Ron Talhelm got us a rate of 8% at a bank in north Houston. The club dropped back to one show a year and we had a mortgage-burning party during the monthly club meeting to celebrate the ownership of our clubhouse. During that period the wife and I collected big petrified Arizona logs which I still have in my rock room. One 4,000 lb. log and another 3,800 lb. log are in sandboxes in that room now lit by LEDs. Since then I have collected many logs and learned a whole lot about petrified wood!!

I have been collecting petrified wood most of my adult life. In the photo below my wife

Cathy watches while I try to lever a log out of the ground in the Patton concession land next to the Petrified Forest National Park. I did not know much about petrified wood at that time; but gradually as the years wore on the collection grew into a giant requiring a 1200 sq. ft. addition onto the back of my garage. Over the years, I have totally filled this space up with logs in their own sandboxes, each on its own wheeled cart. I took these logs down to one of our shows at the George R. Brown Convention Center. Whew – that was work!

Way back before I ever came to Houston, I went one year to Casper College in Casper, Wyoming (Historical Note: Walter Bailey of Casper College died in the Andes while trying to climb a never-summitted peak) then up to Montana State College for two years during which I did a lot of climbing and caving and flunked out. I returned to Casper and worked as a rough neck for



Gary & Wife with Petrified Wood

about 6 months and decided that there had to be a better way. My mother suggested the University of Wyoming. I got a degree in mathematics and went on to graduate school until the money ran out and my dad said he was not funding any graduate work! I was flown down to Houston and interviewed with Baroid. They offered me a job at about \$325.00 per month, which was not too bad at the time.

Back about 25 -30 years ago we had a couple as members who were somewhat famous as Richard "Dick" Offeman's wife Irene was Curator of Paleontology of the Houston Museum of Natural History for a few years. Dick was a Lapidary guy, and Irene formed the Paleontology Section. I worked a little with Dick when he worked for Baroid Division of NI Industries.

As a single fellow in Houston I went to the early days of The Coffee Club and about 6 months later was made door guard to stop married men from coming in and getting dates. About 6 months later I met Cathy and started dating her. I took her to Wyoming on vacation with my parents to Jackson Hole to see the Tetons. My dad was driving an International Travel-all with a travel trailer behind the 396 cubic inch engine with an aluminum boat tied on top. He was an avid fisherman. While camped there on Jackson Lake I talked him into letting Cathy and I borrow the little 12' aluminum boat and go around the lake to the base of Mount Moran. When we gained 4,000 feet elevation I got to thinking: "Wow this gal can really go!" I was climbing by myself all the next day and only got back far enough where she could barely hear me as it got dark on the mountain. I just laid on the craggy mountain until it became light enough for me to get down to our little pup tent about 4:00 AM. I slept in the tent till 10:00 AM and then we started down

the mountain together. We found the boat, got in with our packs, and motored around the lake to my parent's camp. We were gone three days and I decided this was the woman I was going to marry.

I have been president of the HGMS for three terms; two consecutive terms in 1996 and 1997 and then I returned in 1999 after one year out of office. I headed the nominating committees before I was president and became president when I could not get anybody else to accept the nomination. I still go over to the club once and a while as I am a good friend of Neil Immega, who went to the Henry Mountains with me one time and started down into Raggy Canyon from the top, until one little steeper cliff stopped him.



Canyon Hiking in the Henry Mountains

I have made MANY friends over the years; some have passed away and some have just moved away. With this COVID 19 pandemic, I miss the kid's Saturdays with the Youth Section!! Did you know that Beverly Mace was preceded by Jeanelle Walker presiding over the Youth meetings? I hope we get through this and can get back into the old routine of meeting each other at the club house. I am slowing down as I approach 80, but I still like to play pickleball. And I still have more rock than anyone else in Houston

That's all for now.
James Gary Anderson.

[Check out this video about HMNS featuring Irene Offeman on Youtube: 100 Years of Houston Museum of Natural Science.](#)

(Video on the Backbender Extras page at: <https://hgms.org/backbender-extras>).

About 58 years ago I ran into an article printed in Reader's Digest that fits very closely to my philosophy of life:

"Going up a mountain path one day, I met a mountaineer with an ax in his hand. I walked with him and asked him what he was going to cut. "I need a piece of timber to fix my wagon axle." he said. "I need the toughest kind of wood I can get. That kind always grows on top of the mountain, where all the storms hit the hardest!"

Storms rend and mar; but they strengthen, they build, and they may bring forth serene and changeless beauty. The beauty born of storms has a nobility about it. A girl's first bloom may lack significance and spiritual durability. It can represent no effort, no decision, no struggle, no strength or valor on the part of its possessor. Years later, when the girl has become a woman, if she has reacted gallantly to struggle there will come to her a beauty that has about it the air of immortality. That is because it is rooted in character!

We are prone to lament that the world is not better. Yet the fact that it is full of trouble affords us our only chance to spend our hearts. A time of prosperity is a dangerous time; the soul loafs and grows fat. Times of storm and peril are the ones that show what we are made of. A storm is always a challenge; there seems to be something in the heart that rises up to meet it. And so there it is, Gary Anderson's little piece of philosophy, that he has carried in his wallet for the last 58 years!

RUBY JACK SPHALERITE - THE BENEFIT OF FOCUS STACKING PHOTOGRAPHY

by Neal Immega, life long fossil and mineral collector

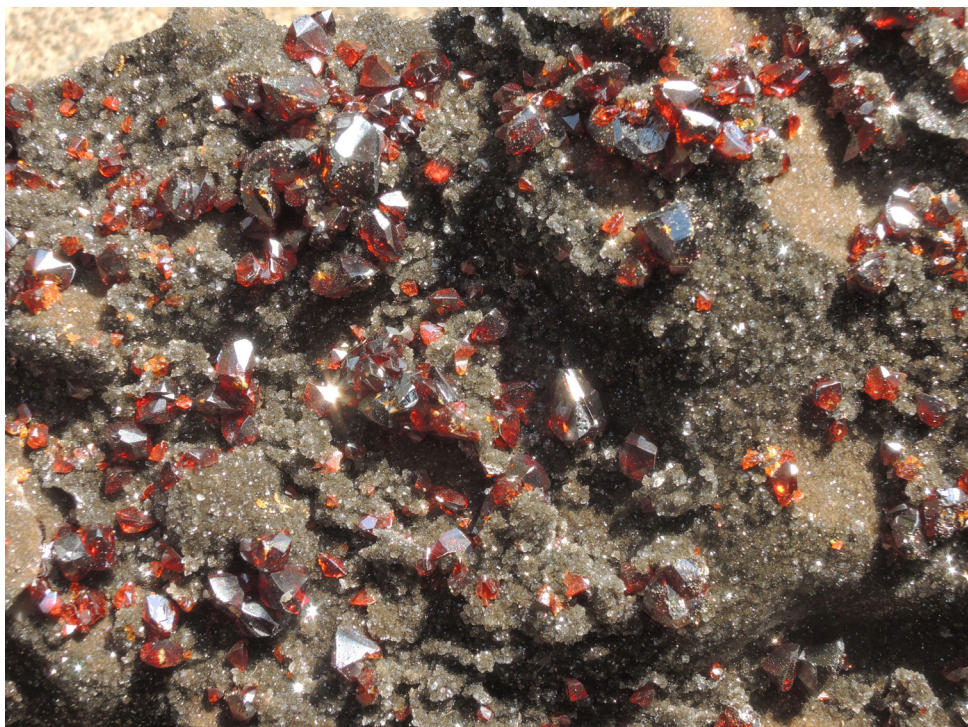
View this article on the Web site to see it in COLOR.

During the pandemic, a number of HGMS members have been meeting for a "distanced" lunch under the oak tree at Clyde McMeans house. Part of the activity is looking at his minerals and making "ooos and ahs" and an occasional identification.

One of the pieces I admire is this ruby jack sphalerite from Missouri, where I often collected as a student. Sphalerite is a zinc sulfide, (Zn,Fe)S. Normally the mineral carries so much iron as a secondary element that it is opaque. This piece has both kinds: normal high-iron sphalerite crystallized first, followed by a late sprinkle of gloriously red low-iron. Last, come tiny crystals of golden chalcopyrite (a copper iron sulfide).

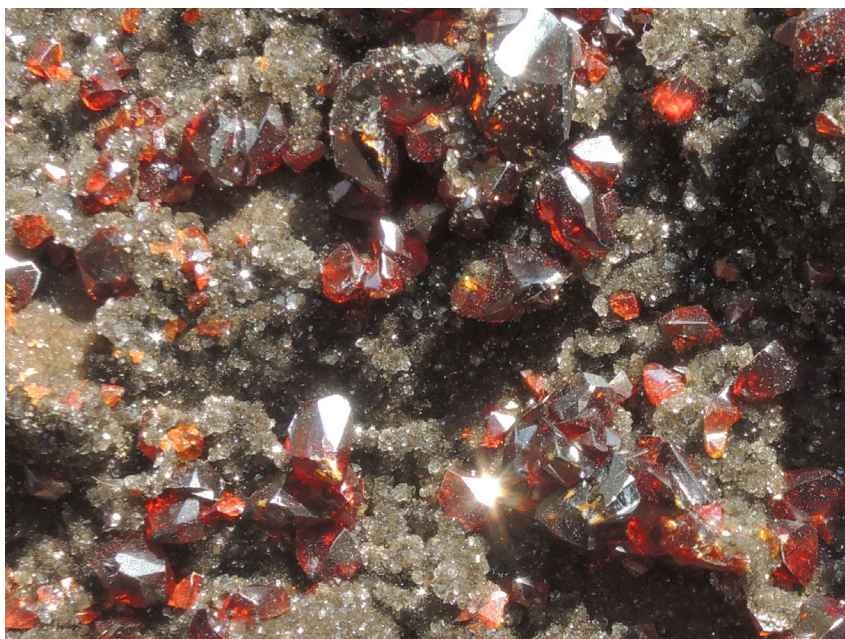
The sulfides are crystallized on top of the tiny crystals of a piece of dolomite "breakdown".. Many of the Missouri metal deposits are found where a high magnesium-rich solution first altered the local limestone (calcium carbonate) to dolomite (calcium magnesium carbonate) producing porosity that was later filled with ore minerals. This specimen is just the right size to fit into a miners lunchbox – I thank the unknown man who saved it from the crusher.

A hand lens really brings out the wonderful crystals. This picture is about what I see through my lens. It was taken in full sun with my point and shoot Nikon. Very nice, but I can do better.



Red Ruby Jack Sphalerite on Brown Sphalerite and Dolomite. 60 mm across.

An enlargement of the same picture shows the tiny chalcopyrites.



Enlargement of the previous photo. 25 mm across.

A technique called focus stacking can produce surprising detail by collecting all the in focus portions of a number of pictures. This produces photos that simply cannot be taken any other way. The author of the program, CombineZP, provides it free on the web from the location:

<https://combinezp.software.informer.com/download/>

There are other fee-based focus stacking programs. I like this one because it is easy and fast. I typically ask the program to run the 6 possible variations and then select the one I like. On a fast Windows computer (Core i7) the whole job takes less than 2 minutes. I used my Panasonic 4/3 camera with a macro lens.



Same specimen with focus stacking. See the fine details. 15mm across.

I think that you should always use at least a hand lens to see the marvelous detail on your mineral specimens. Thanks, Clyde.

MONKEY FOSSILS FOUND IN CHINA

from Pick & Shovel 10/2020

Paleontologists have found the remains of *Mesopithecus pentelicus*—an extinct species of Old World monkey that lived in Europe and Asia between 7 and 5 million years ago—in the Shuitangba lignite mine in northeastern Yunnan Province, China. The discovery indicates that this monkey species existed in Asia at the same time as apes, and is probably the ancestor of some of the modern monkeys in the area.

“This is significant because they are some of the very oldest fossils of monkeys outside of Africa,” said Professor Nina Jablonski, an anthropologist in the Department of

Anthropology at the Pennsylvania State University. "It is close to or actually the ancestor of many of the living monkeys of East Asia.

One of the interesting things from the perspective of paleontology is that this monkey occurs at the same place and same time as ancient apes in Asia." The jawbone and the upper portion of the leg bone indicate that the individual was female. They suggest that these monkeys were probably "jacks of all trades" able to navigate in the trees and on land. The teeth indicate they could eat a wide variety of plants, fruits, and flowers, while apes eat mostly fruit. "These monkeys are the same as those found in Greece during the same time period," Professor Jablonski said, "Suggesting they spread out from a center somewhere in central Europe, and they did it fairly quickly. That is impressive when you think of how long it takes for an animal to disperse tens of thousands of kilometers through forest and woodlands."

"This is an interesting case in primate evolution because it testifies to the value of versatility and adaptability in diverse and changing environments. It shows that once a highly adaptable form sets out, it is successful and can become the ancestral stock of many other species."

Excerpted - For the full article, go to:

<http://www.sci-news.com/paleontology/mesopithecus-pentelicus-china-08937.html?fbclid=IwAR09GpYTeNfL6xicWzugvSkcFWZrTrUsEDOzidafsRYleIxK3ABHILSYd5k>

HOW OPAL PRODUCES THE "PLAY OF COLORS"

from Midland Gem & Mineral 6/2004, via The Roadrunner 10/2020

It took the development of the electron microscope to work this out. Precious opal is made up of tiny uniform spheres of transparent hard silica, which fit together in an orderly three-dimensional frame, sitting in a "bath" of silica solution. The orderliness of the spheres separates precious opal from common opal.

Light passes through the transparent sphere in a direct line, but when it hits the "bath" of silica, it is bent and deflected at different angles, thus producing a rainbow effect.

Deflection & Diffraction

Depending on the size of the spheres, varying colors of the spectrum are diffracted. The combination of deflection (bending) and diffraction (breaking up) of light rays creates the color in opal. If you move the stone, light hits the spheres from different angles and brings about a change in color. The name **opal** actually means, "to see a change in color." The way in which colors change within a particular stone as it is rotated and tilted is called the stone's "play of color."



Precious Opal (Coober Pedy Opal Field, South Australia) by James St. John

See more examples of beautiful opals on the [Backbender Extras Page of our Web site.](#)

HAVING FUN: JUNIOR ACTIVITIES

by Jim Brace- Thompson, AFMS Juniors Program Chair

Keep Your Kids' Program Active and Alive:

It Is Still Possible, Even in a Pandemic

from AFMS Newsletter 10/2020

I have been hearing reports like the following from clubs within the seven regional federations: "It is a sad year for our societies." Yes, the coronavirus pandemic has dealt us all a terrible blow. But that doesn't make it a sad year. It is only sad if you let it be!

I have heard of local clubs and societies all across America making sweet lemonade out of the bitter juice of lemons. My own Ventura club has blossomed with Zoom—including Zoom membership meetings, Zoom board meetings, and pebble pup gatherings conducted via Zoom. We have had guest speakers give PowerPoint presentations and videos and have even conducted an online rock auction. In the pages of our newsletter, members have offered "What I Did during Lockdown" articles and photos on lapidary projects they have been doing, from knapping to cabbing to beading to wire wrapping and more. We can bemoan and despair. Or we can take the initiative and craft a new way forward until this pandemic is defeated. Don't let the pandemic defeat you—or your society!

Proactive clubs all across AFMS are keeping their pebble pup and juniors' programs going strong in several ways that I have heard about. The prime ingredient is social media. Clubs have been posting regular updates, links to fun Websites, and interactive games for their kids to play via their society Facebook pages and club Websites. They've been using Zoom to gather kids together once a month with time for greetings and show-and-tell before a fun program that often includes sharing an activity from instructions that had been emailed in advance (such as making a baking-soda-and-vinegar volcano or growing crystals from sugar, salt, or borax at home, then sharing the results). And they've been hosting things like weekly "Name That Specimen" contests where a photo and brief description of a rock, mineral, or fossil is emailed to Pebble Pup families once a week, with winners then awarded prizes through the mail. (One family in my own club has been so appreciative of such efforts that they recently made a \$200 voluntary donation to the program!)

Finally, we have our own AFMS/FRA Badge Program with the Badge Manual posted freely on the Kids Corner of our AFMS Website. Many clubs have been encouraging their youngest members to work with parents in a "home schooling" sort of way to continue earning badges. In fact, just today I was pleased to mail seven badges to one club with three kids who remain quite active with the Badge Program. Guide parents in your club to http://www.amfed.org/fra/fra_badge.htm.

What has worked for you and your club? I welcome ideas large and small! Please send your thoughts and success stories to me via snail-mail, e-mail, or phone: 7319 Eisenhower Street, Ventura, CA 93003; jbraceth at roadrunner.com, (805) 659-3577. I welcome your ideas to keep our youngest members enthusiastic, involved, and excited—while having fun!

PYROMORPHITE

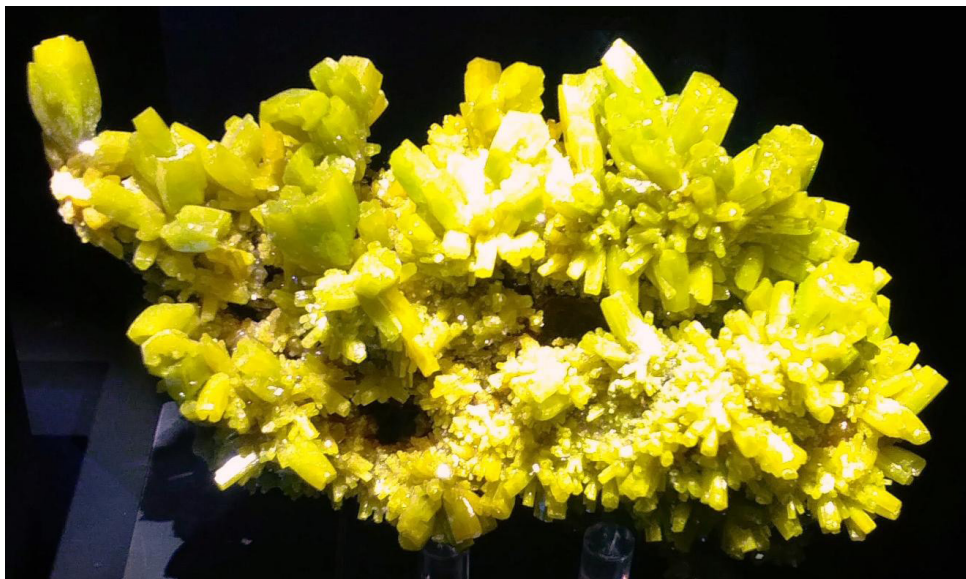
*by Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas
from Chips and Chatter 10/2020*

Pyromorphite has been a side topic in different Chips and Chatter articles, but never the main topic. Amongst mineral collectors, pyromorphite is a popular mineral. Pyromorphite is lead chlorophosphate, $\text{Pb}_5(\text{PO}_4)_3\text{Cl}$ and is part of a series with Mimetite, $\text{Pb}_5(\text{AsO}_4)_3\text{Cl}$ and Vanadinite, $\text{Pb}_5(\text{VO}_4)_3\text{Cl}$; note the similar chemical formula. Pyromorphite has a Mohs hardness of 3.5 to 4.0 and a white streak. The pyromorphite comes in a variety of colors including green, yellow, reddish orange, brown, tan, white, and even clear. The brighter color specimens (green, yellow, and orange) seem to be most popular with collectors. One aspect of the crystals of pyromorphite is that they can be hollow. Interestingly, all the members of the pyromorphite, vanadinite, and mimetite series can have cavernous (hollow) needles. In the February 2020 Chips and Chatter article on Crocoite, I mentioned that it was my understanding, without any references to back it up, that only four minerals had hollow crystals. In that article, I mention crocoite, pyromorphite, and vanadinite. Now I can add mimetite to complete that list. All four are lead based minerals! The only other mineral that I have seen with hollow needles was a plumbogummite replacement of a crocoite specimen; the original mineral shape was hollow and was not altered in the replacement by plumbogummite.

Pyromorphite does not have many commercial applications. Better specimens are saved for mineral collectors. Pyromorphite can be used as a lead ore. At an atomic level, the weight of the lead is about three times as heavy as the weight of the remaining elements combined. Any time you have an ore containing about 75% by weight of the final desired product, you certainly have a rich ore! The instances where pyromorphite is used as a lead ore are circumstances where the pyromorphite is plentiful and the mineral specimens of poor quality or non-existent (i.e., massive pyromorphite). As I was searching for uses, I accidentally went to Amazon.com and found a small, green jar of refined pyromorphite for use as a paint tint. Years ago I think Datsun used pyromorphite as a tint for my 240Z; the color was called baby poop green (actually, they called it chrome green; it was just a joke I had to live with). Just to be clear and fair, I am sure they were not using lead-based tints—the color was probably tinted by some chrome oxide combination.



*Pyromorphite from China—Note the numerous hollow crystals
by Don Shurtz (Displayed at the Perot Museum of Nature and Science)*



Pyromorphite from Idaho by Don Shurtz (Displayed at the Perot Museum of Nature and Science)

Pyromorphite's name comes from the Greek *pyr* meaning fire and *morfe* meaning form. But why fire and form? If you melt pyromorphite in a crucible (hence fire to cause the melting), rather than harden into a blob shaped like the crucible, it starts to form crystals again. Hence, from crystalline form—because of fire—to crystalline form again. Pyromorphite can be found almost anywhere in the world where lead is found. The location map in Mindat.org shows it coming from Alaska through North America and into South America. On the other side of the Atlantic Ocean, it is found in Africa up through Europe and across Asia to the Pacific Ocean, and then south through Australia to New Zealand. In the United States, prime specimens come from Coeur d'Alene district in Shoshone County, Idaho. Other locations in the United States include North Carolina, Pennsylvania, and Massachusetts. Just to the south in Mexico, green specimens in association with Wulfenite (another lead mineral) have been found. In Europe, you can take your pick of England, France, Spain, and Germany. Excellent specimens come from Zambia in Africa, and in Australia from New South Wales, the Northern Territory, Queensland, and Tasmania. Some amazing specimens have been found in recent years in China. If you want to find a quality specimen of pyromorphite in Texas, you would be looking in large museums related to Natural History. However, if you want to find one of the few (rare) poor-quality specimens of pyromorphite in Texas, you need to look in the Indio Mountains in Hudspeth County. There is a picture of a Texas pyromorphite at <https://www.mindat.org/photo-673063.html>. As the picture is copyright, this link is the best I can do.

References:

- The Mineral Pyromorphite, [minerals.net](https://www.minerals.net/) <https://www.minerals.net/>
- Pyromorphite, [Mindat.org](https://www.mindat.org/), <https://www.mindat.org/>
- Pyromorphite, Wikipedia, <https://en.wikipedia.org/wiki/>

Pictures:

- Green specimen from Daoping Mine, Gongcheng County, Guilin Prefecture, Guangxi Zhuang Region, China
- Yellow specimen from Bunker Hill Mine, Kellogg, Coeur d'Alene District, Shoshone County, Idaho

NICKEL SILVER

by Dub & Lee Roberts

from THE T-TOWN ROCKHOUND 05/1986, via The Roadrunner 10/2020

It is with a great deal of pleasure that we contribute this article on nickel silver. It seems that so little is known about it, the use of it is not widespread. Even before sterling silver and gold began their sharp rise, we were working with nickel silver in our shop because of its durability and beauty.

Nickel silver is non-ferrous metal which consists of nickel, copper, and zinc with the nickel content being anywhere from 6% to 18%, the latter being the finest jewelry grade. This is the grade in which metal craftsmen are interested. The nickel silver that we use consists of 18% nickel, 17% zinc, and 65% copper, with a melting point of 2030 degrees. It is soldered readily with all silver solders, and because of its relatively high melting point, it can take more heat during the soldering process without the danger of melting. This is a very tough metal, and it is far more scratch-resistant than sterling silver. Anyone who has spent hours removing scratches and polishing silver appreciates this quality. Nickel silver is an "every day" metal that can really take everyday wear with a minimum of upkeep. We have found that when a piece of nickel silver is polished, it resists tarnish and keeps its luster.

At first, many people seemed to have trouble soldering nickel silver and removing the fire scale resulting from soldering. The problem in this respect can be considerably reduced by using a self-pickling flux. The purpose of flux is to clean the object being soldered, and self-pickling flux is essential for nickel silver. **Even before fluxing, we always clean the nickel silver and the solder with 000 steel wool by hand.** After rinsing the nickel silver and solder with clear water, we then apply self-pickling flux. This process assures an even solder flow and a minimum of fire scale. Nickel silver always requires a slightly hotter torch flame than sterling silver. Pickle the piece in Sparex and polish, either by hand or with a motor driven silver polisher.

This metal adapts itself particularly well to stamping. It holds a stamped design many years without blurring with wear. Because it is a tough metal, the stamping must be done with a heavy hammer. We use a 16-ounce ball peen hammer with a steel anvil. The Indian craftsmen in Oklahoma have developed this into a fine art. Tradition decrees that all religious vessels or jewelry used in the Native American Church be made of nickel silver. Consequently, the Indian metalworkers have put their best efforts into developing designs for this purpose as well as for the jewelry they themselves wear. This is beautifully illustrated in the book **Contemporary Southern Plains Indian Metalwork**. They make their own metal stamps to decorate the beautiful nickel silver pieces they make, not only for their church, but also for their dance costumes and the bridles and saddles of their horses. These stamps are passed from father to son, and are unique and highly prized. Their stamps include the aquatic spirit bird, the drum, tipi, fan, and the crescent-shaped altar.

The Indians have also used nickel silver in overlay work. A particular design is cut in one sheet of nickel silver and that sheet soldered to another sheet. In this context it should be observed that the weight of nickel silver differs from sterling. For those who have worked silver, then switched to nickel silver, the tendency is to make the nickel silver piece too heavy. We always recommend to our customers that they consider a lighter gauge of nickel silver than they normally use in sterling silver. There are bezel wires, round wires, and square wires available for jewelry. The wires and sheet that we stock are also already annealed for ease in working.

If you have given up metalworking because of the price of silver, scan the advertisements for nickel silver. It can be the most rewarding metal you have ever worked. This durable metal has beauty all its own, and it has earned a place in the list of jewelry metals craftsmen love to work.

PURPOSE OF HGMS

The objectives of this Society are to promote the advancement of the knowledge and practice of the arts and sciences associated with the collecting of rocks, minerals, fossils, artifacts, and their identification and classification; the general lapidary art; the collecting and identification of gemstones; the designing and execution of jewelry or metalcraft; and to provide the opportunity to obtain, exchange, and exhibit specimens and rough or finished materials.

Membership dues are \$40 for an adult membership, \$60 for a couple, \$75 for a family (including all children aged 5-18). \$25 for a youth membership (ages 5-18), and \$500 for an adult life membership.

Advertising rates: \$70 for 2 months, 1/4 page; \$150 for 6 months, 1/4 page.

MEMBER: American Federation of Mineralogical Societies and South Central Federation of Mineral Societies.

All meetings are held at the Clubhouse which is located at 10805 Brooklet near the intersection of Highway 59 (Southwest Freeway) and Sam Houston Parkway (Beltway 8).

See the calendar inside the back page for when the different Sections meet.

The General Meeting is the fourth Tuesday of each month (except December) at 7:30PM.

The HGMS web site address is <https://hgms.org>

HGMS BOARD OF DIRECTOR MEETING MINUTES

OCTOBER 6, 2020

by Nancy English

X	President—Sigrid Stewart	X	Beading—Maggie Manley
X	1st Vice President—Mike Sommers	X	Day Light—Fred <u>Brueckner</u>
X	2nd Vice President—Beverly Mace	X	Gemstones & Faceting—Randy Carlson
X	Treasurer—Tatyana <u>Kuhne</u>	X	Lapidary & Metalsmithing—Phyllis George
X	Secretary—Nancy English	X	Mineral—Steve Blyskal
X	Archaeology—Nancy Engelhardt-Moore	X	Paleontology—Mike Dawkins

President Sigrid Stewart called the Zoom meeting to order at 7:37 p.m. A quorum was present. Michele Marsel, 1st Vice President candidate for 2021 Board of Directors, joined the meeting.

PRESIDENT'S COMMENTS

The shop is available for use if a Shop Foreman and a helper are available to operate

the machines. If you need to use the shop, contact Neal Immega at nealimmega@gmail.com. He will schedule an appointment. Beyond that, the HGMS clubhouse remains closed for member use in order to minimize the danger of Coronavirus spread. The Board of Directors will determine when it is safe to reopen. Some Sections are scheduling virtual meetings. October and November General Meeting programs can be experienced virtually. Classes will not be scheduled until the Club reopens.

Approval of Minutes: Phyllis George moved to approve the minutes of the September 1, 2020 BOD meeting as posted in the October BBG. Steve Blyskal seconded the motion, and it passed.

Treasurer Report: Tatyana Kuhne sent the Treasurer's Report to members on Saturday, October 3, 2020. No news from the IRS about 2018 taxes. Tatyana Kuhne will provide information to Rodney Linehan so he may prepare our 2019 taxes.

COMMITTEE REPORTS

BBG Editor: The October 2020 BBG was emailed to members on October 4, 2020. The hard copy will be mailed on October 7, 2020. Nancy English asked the editors to make the BBG calendar reflect the current conditions of access to the Club—change the open shop hours to state “by appointment only,” change Section meeting schedules to “no meeting planned,” or to “virtual meetings, see Web Site and Sunday E-blasts from Jim Kendall for information.”

Education Committee: Members can find links to online projects in the Sunday E-blasts sent by Jim Kendall.

Scholarship Committee: Mike Sommers reminded the Board that he is still looking for a speaker for Kaitlyn Truss's Geology Club. Kaitlyn received one of the 2020 HGMS Scholarships. She had asked Mike if HGMS had a speaker who would talk to her Geology Club. Her Club meets every other Thursday at 2:00 p.m. Randy Carlson agreed to speak to her Club. Mike will forward her contact information to Randy. Thank you, Randy.

Show Committee: This week we kicked off our vision for the pandemic replacement to our Annual Show.

This letter went out to our dealers today. Please feel free to peruse the links contained in this letter. These pages have been roughed-out by Lauren, our webmaster. This, in effect, initiates our efforts. After this, the Show Committee needs to mobilize, and everyone needs to work toward making this a success. This is a very different audience than we have appealed to in the past. It is all online. Many of the individuals might have come to our in-person shows, but the fact is most are as unfamiliar with this new reality as are the rest of us. It is the younger generation who is more comfortable with this than the rest of us. So, the Show Committee needs everyone's support to make this a success. If you are willing to help with this effort, please reply to this message or contact someone on the Show Committee with whom you are friends. The real work starts now. Thanks for your support,
Scott fossilwood@comcast.net

Web Site Committee: The Web Site Committee has been hard at work outlining a plan for our Virtual 67th Annual Gem, Jewelry, Fossil, and Mineral Show. A mix of recorded video, articles, talks, demos, and live interaction will be presented **November 14 and 15 from**

10:00 a.m. to 4:00 p.m. At least 16 vendors are planning to participate, there will also be a Silent Auction, raffles, educational videos, and articles. Many of you have already received calls asking you to prepare videos or to do demos, and requests are still going out. If you have a topic you would like to talk about or you would like to create a video, please contact Sigrid Stewart ASAP at sigrid.stewart@gmail.com.

Videos should be short, to the point, and scripted to avoid long pauses. Make eye contact with the camera, and either use a tripod or have an assistant hold the camera or phone. Lighting is important; so is zooming in on interesting specimens or on work in progress. Do you have ideas about educational material for kids? Videos are especially important here—teachers have a hard time scheduling remote instruction. Recorded video gives them material they can use when it fits into their schedules.

We are planning to run a Silent Auction both days. Do you have a beautiful specimen or a piece of jewelry you can donate? We need more very nice pieces to appeal to our customers. Its value should be at least \$20 because we will need to package and mail them to the winners. In addition, we need volunteers for that effort.

For Silent Auction: Sarah Metza, Libby Guynn, and Michele Marsel met Fred Brueckner at the Club, and they sorted through donations. They identified some great items, but we need more in the way of mineral specimens and fossils!

Elsa White (Education Committee) is looking into a Texas Essential Knowledge and Skills (TEKS) -focused downloadable scavenger hunt.

SECTION REPORTS

All in-person Section Meetings are canceled until further notice.

Some Sections conduct virtual meetings.

Archaeology Section: First Thursday, 7:30 p.m., November 5, 2020. Bob Moore will give an online presentation “Egypt: The Dendera Temple Complex.” The talk will show photos taken by Bob’s wife, Nancy Engelhardt-Moore, during their 2007 trip to Egypt. Check the HGMS Web site or the Sunday, November 1, 2020 Eblast for Zoom information.

Beading Section: Third Saturday, 1:30 p.m., October 17, 2020. No program planned.

Day Light Section: First Wednesday, 1:00 p.m., October 7, 2020. No program planned.

Gemstones and Faceting Section: Second Wednesday, 6:30, p.m., October 14, 2020. Randy Carlson will have an online presentation this month. Check the Sunday, October 11, 2020 Eblast for Zoom information.

Lapidary and Silversmithing Section: Third Monday, 7:30 p.m., October 19, 2020. No program planned.

Mineral Section: Third Wednesday, 7:30 p.m., October 21, 2020. No program planned.

Paleo Section: Third Tuesday, 7:30 p.m., October 20, 2020. No program planned.

Youth Section: First and Third Saturdays, 10:00 a.m. to Noon, October 3 and 17, 2020.

No program planned.

OLD BUSINESS

Clubhouse Keys: Rekeying the HGMS Clubhouse is postponed until after the Virtual Show on November 14 and 15, 2020.

HVAC—A/C replacement: President Stewart called Scott Thompson of Lee Thompson HVAC and asked him to check again on the availability of Daikin units like those we already have installed. Scott will look into it.

2021 HGMS Officers Nominating Committee: President Stewart introduced the Nominating Committee at the September 22, 2020 General meeting. She thanked Phyllis George and Randy Carlson for agreeing to the task. Michele Marsel has agreed to become the First Vice President. Thank you, Michele. Phyllis George will contact Nathan Gandara and Foster Kneeland to discuss the 2021 presidency. The Nominating Committee will present a 2021 slate of officers at the **October 27, 2020 General Meeting. The nominees will be voted on by members at the November 24, 2020 General Meeting.**

NEW BUSINESS

TIG Welder: Does HGMS want to buy the TIG welding machine from Paul Robles' estate? Neal Immega suggested that we offer \$3000 for the machine.

Fred Brueckner proposed these reasons to buy it:

- To honor Paul's memory and contributions.
- Paul would want the club to have it
- It would be a good investment for the Shop.
- It would add to the uniqueness of our Shop
- Neal Immega spent a lot of time learning how it works
- A new class could be taught to get a few people proficient in its use.

Nancy English moved that HGMS purchase the TIG Welder from the Robles' estate for \$3,000. Nancy Engelhardt-Moore seconded the motion, and it passed unanimously.

Dunn Southwest: The computers at Coir Property Company, LLC, the Dunn Southwest management company, have been hacked. Any emails from them should be scrutinized carefully for incorrect email addresses. Do not open attachments. Sigrid Stewart, Nancy English, and Paul Brandes have received the bogus emails.

Nancy English attended the Dunn Southwest Annual Meeting on Zoom. We voted on new board members. There has been no movement by TxDOT to replace the broken major drainpipes near the freeway. This is the cause of the flooding in the Dunn Southwest business park. Coir cannot get anyone at Harris County or TxDOT to commit to fix or even to discuss it.

Nancy English complemented HGMS for paying their dues on time, (many do not) and for saving over the years to protect HGMS from financial problems.

Pathfinder/LL&D Insurance Group. Commercial Package Insurance Policy, effective 11/01/2020 for a one-year term. "The policy has been issued in accordance with your instructions. Although the policy has been checked for accuracy, please take a moment to review it and advise our office immediately of any changes. The extent of the insurance

protection provided is at all times governed by the complete terms of each policy. Please pay particular attention to the exclusions, conditions, and limitations. This policy does not include any Flood coverage protection. There may be optional coverage and endorsements available, some for an additional charge. Higher limits of coverage may also be available.

“All coverage is subject to insurance company underwriting requirements and the placement of additional protection must be approved by the Underwriter. Please remember to notify us of any additional entities (companies) or changes in your operations. Failure to do so could jeopardize your coverage. We evaluated your exposures to loss and based upon information you provided. If there are other areas that need to be evaluated, please bring them to our attention.”

Treasurer Tatyana Kuhne suggested we compare what our policy covers with coverage from SCFMS to see if there is any overlap. President Stewart asked members of the BOD to assist in reading the policy.

The next Board of Directors meeting will be on the first Tuesday, 7:30 p.m. November 3, 2020 (Election Day: Vote Early).

The next General Meeting will be on Tuesday, 7:30 p.m. October 27, 2020. Maggie Manley will present the “History of Beads.” The program will include photos taken of the images in the HGMS Library books about the history of beads.

Adjourn: Nancy English moved to adjourn the meeting. Phyllis George seconded the motion, and it passed. The meeting adjourned at 9:36 p.m.

HGMS GENERAL MEETING MINUTES

SEPTEMBER 22, 2020

by Nancy English

President Sigrid Stewart called the September 22, 2020 Zoom General Meeting to order at 7:31 p.m. She welcomed nineteen members.

PRESIDENT’S COMMENTS

Approval of Minutes: Nancy English reported that she neglected to put the September 22, 2020 General Meeting program in the August 25, 2020 minutes. She added that information and forwarded the corrected minutes to the BBG editors and Jim Kendall. The corrected minutes will be posted in the October BBG.

Phyllis George moved to approve the minutes of the August 25, 2020 General Meeting as corrected. Nancy Fischer seconded the motion, and it passed.

SECTION/COMMITTEE REPORTS

In the interest of time, President Stewart asked members to look for reports of future Section meetings and presentations in the BBG, on the Web site <https://hgms.org>, or by reading the weekly e-blast from Jim Kendall. If you are a member and not on Jim Kendall’s e mail list, please contact him at kendallja@att.net to be added.

President Stewart invited other Section Chairs and Standing Committee Chairs to make

any additional announcements.

Archaeology Section: First Thursday, 7:30 p.m., October 1, 2020. Bob Moore will speak on "Lost Ancient Greco-Roman Medicine." He gave this talk previously for the HGMS June General Meeting. This is a second opportunity to see this presentation.

Gemstones and Faceting Section: Second Wednesday, 6:30 p.m., September 9, 2020. Randy Carlson set up video meetings for the rest of the year. Check the weekly E-blasts for the invitation codes to attend the meetings.

OLD BUSINESS

President Stewart asked members to look for the progress of Old Business items in the BOD Meeting Minutes in the latest BBG.

Building Issues: The air conditioner we have on order still is not available.

Nominating Committee: President Stewart introduced the Nominating Committee and thanked Phyllis George and Randy Carlson for agreeing to the task. Sigrid has emailed other members to encourage them to join the Committee but has not received a response. Michele Marsel has agreed to become the First Vice President. Thank you, Michele.

The Committee will present a 2021 slate of officers at the **October 27, 2020 General Meeting**. **The nominees will be voted on by members attending the November 24, 2020 General Meeting.**

Shop News: David Hawkins is the Shop Foreman on Saturdays. He is not restricting the number of people allowed into the shop, nor is he requiring masks. Neal Immega reported that all the grinders are now working in the shop. When it is reopened, there will be plenty of machines for the polishers. Now Neal will begin cleaning up the areas in the building. Nancy Fischer was very complimentary about her and Bob Fischer's time in the shop recently. They had it to themselves with Neal in the building.

Web Site Committee: The first notice of the Virtual Annual Show was posted September 12, 2020. Feedback from recipients noted that it is well presented, upbeat, and colorful. Planning continues for the HGMS Virtual Annual Show. The Committee is looking for three to five minute videos of demonstrations, examples of collections, field trip finds, fossil identifications, and explanations about what we do. So far, Richard Good has provided a video. Steve Blyskal and Randy Carlson have also has committed to videos.

NEW BUSINESS

Dunn Southwest: Coir Property Company, LLC, the company which manages the Dunn Southwest property our clubhouse is located in, has been hacked. Any emails from them should be scrutinized carefully for incorrect email addresses. Do not open any attachments. Sigrid Stewart, Nancy English, and Paul Brandes all have received bogus emails.

The next Board of Directors meeting will be the first Tuesday, 7:30 p.m. October 6, 2020.

The next General Meeting will be the fourth Tuesday, 7:30 p.m. October 27, 2020. Maggie Manley will present "The History of Beads." The program will include slides of pictures in HGMS Library books about the history of beads.

Show-n-Tell: Steve Blyskal and Sigrid Stewart are in Edwards, Colorado visiting family. During a road trip to Sylvan Lake State Park through the Crooked Creek Pass, they saw vertical rock layers with ripple marks on the exposed dip face [meaning parallel to the angle of bedding]. They were able to remove a couple of examples of the rocks with ripples, which preserve ancient wave action, to bring back to Texas and to show the General Meeting audience.

Mike Sommers shared a native gold crystal formation in uraninite (uranium oxide) from the Shinkolobwe Mine of the Democratic Republic of Congo. The wire gold portion resembles a giraffe head and neck. Smaller gold crystals are sprinkled within the uranium oxide matrix. He also shared a specimen of rhodochrosite from the Cuyuna North Iron Range of Minnesota.

Paul and Nathalie Brandes spent four weeks in Michigan this summer. Nathalie found a piece of silver and some copper-replaced agates. Paul showed a native iron specimen from Disko Island, Greenland that he purchased while in Michigan.

Adjourn: Nancy English moved to adjourn the meeting. Michele Marsel seconded the motion, and it passed. The meeting adjourned at 8:02 p.m.

President Stewart introduced the Program: Steve Blyskal presented "Dinosaur National Monument—Worth the Trip!" The Quarry Exhibit Hall in the park features the Wall of Bones, a spectacular fossil deposit containing the skeletons of many dinosaurs which is the main focus of Dinosaur National Monument. There are many other activities available in this park in the northwestern corner of Colorado and northeastern corner of Utah, such as camping, hiking, rafting and fishing. He showed photographs of the geological formations and layers in the area. The remarkable "Wall of Bones" deposit was created during the Jurassic when many dinosaur carcasses were washed downstream by a flood on an ancient river to accumulate in a jumble in a river bar. Further deposition buried the bones, and they were preserved in the subsurface. Mountain building in the Laramide Orogeny brought the sandstone to the surface and tilted it 67 degrees from horizontal, exposing some of the bones, which were carefully excavated for display in the covered Hall.

SHOW TIME 2020

DATE	LOCATION	SHOW INFO
Nov. 7-8	Amarillo, TX	Golden Spread Gem, Mineral & Treasure Society Amarillo Civic Center, 401 S. Buchanan patfoster2@hotmail.com ; http://amarillotreasure.com/
Nov. 14	Virtual Event	Houston Gem and Mineral Society Anywhere! Our interactived virtual show can be viewed from anywhere show@hgms.org ; hgms.org

2020 HGMS OFFICERS




President	Sigrid Stewart	President @HGMS.org
First Vice President	Mike Sommers	Programs@HGMS.org
Second Vice President	Beverly Mace	Membership@HGMS.org
Secretary	Nancy English	Secretary@HGMS.org
Treasurer	Tatyana Kuhn	Treasurer@HGMS.org
Archaeology Section Board Member	Nancy Engelhardt-Moore	Archaeology@HGMS.org
Beading Section Board Member	Maggie Manley	Beading@HGMS.org
Daylight Section Board Member	Fred Brueckner	
Faceting Section Board Member	Randy Carlson	Faceting@HGMS.org
Lapidary Section Board Member	Phyllis George	
Mineral Section Board Member	Steve Blyskal	Mineral@HGMS.org
Paleo Section Board Member	Mike Dawkins	Field_trips@HGMS.org

HGMS SECTION CHAIRS

Archaeology Section Chair	Bob Moore	Archaeology@HGMS.org
Beading Section Chair	Kim Fuselier	Beading@HGMS.org
Day Light Section Chair	Nancy Searle	Daylight@HGMS.org
Gemstone & Faceting Section Chair	Randy Carlson	Faceting@HGMS.org
Lapidary & Silversmith Section Chair	Anthony Lucci	Lapidary@HGMS.org
Mineral Section Chair	Stephen Blyskal	Mineral@HGMS.org
Paleo Section Chair	Neal Immega	Paleo@HGMS.org
Youth Section Chair	Beverly Mace	Youth@HGMS.org

HGMS APPOINTED POSITIONS

Assistant Show Chair	Clyde McMeans	
Backbender's Gazette Editor		Editor@HGMS.org
Clubhouse Chair	Neal Immega	ClubhouseChair@HGMS.org
Day Light Contact Person	Nancy Searle	Daylight@HGMS.org
Donations	Neal Immega	Donations@HGMS.org
HGMS Education Chair	Maggie Manley	Classes@HGMS.org
Lapidary Templates	Mary Ann Mitscherling	Templates@HGMS.org
Librarian for Main Library	Neal Immega	Librarian@HGMS.org
Publicity Chair	Sara Metsa	Publicity@HGMS.org
Scholarships	Mike Sommers	Scholarship@HGMS.org
Show Chair	Scott Singleton	ShowChair@HGMS.org
Trade Show	Scott Singleton	Tradeshow@HGMS.org
Trade Show	Sigrid Stewart	Tradeshow@HGMS.org
Volunteer Coordinator	Nancy English	VolunteerCoordinator@HGMS.org
Webmaster	Sigrid Stewart	Webmaster@HGMS.org
Youth Section Assistant	Elizabeth Guynn	Youth2@HGMS.org

NOVEMBER 2020						
SUN	MON	TUES	WED	THURS	FRI	SAT
1 10a-4p Shop by Appt.	2	3 11a-3p Shop by Appt.	4 10a-3p Shop by Appt. 1p-3p Day Light Section	5 10a-3p Shop by Appt. 7:30p-9:30p Archaeology Section	6	7 10a-12p Youth Section 12-3p Shop by Appt.
8 10a-4p Shop by Appt.	9	10 11a-3p Shop by Appt.	11 10a-3p Shop by Appt. 6:30p-8:30p Gemstones & Faceting Section	12 10a-3p Shop by Appt.	13	14 10a-4p Virtual Annual Show
15 10a-4p Shop by Appt.	16 7:30p-9:30p Lapidary & Silversmithing Section	17 11a-3p Shop by Appt. 7:30p-9:30p Paleo Section	18 10a-3p Shop by Appt. 7:30p-9:30p Mineral Section	19 10a-3p Shop by Appt.	20	21 10a-12p Youth Section 12:15p-3:15p Shop by Appt 1:30p-3:30p Beading Section
22 10a-4p Shop by Appt.	23	24 11a-3p Shop by Appt. 7:30p-8:30p General Meeting	25 10a-3p Shop by Appt.	26 10a-3p Shop by Appt.	27	28 10a-3p Shop by Appt.
29 10a-4p Shop by Appt.	30	X	<div>  Due to coronavirus, many club events are postponed -Please check our online calendar at  hgms.org/events/calendar for updated information  </div>			X

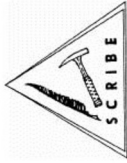
DECEMBER 2020						
SUN	MON	TUES	WED	THURS	FRI	SAT
X	X	1 11a-3p Shop by Appt.	2 10a-3p Shop by Appt. 1p-3p Day Light Section	3 10a-3p Shop by Appt. 7:30p-9:30p Archaeology Section	4	5 10a-12p Youth Section 12-3p Shop by Appt.
6 10a-4p Shop by Appt.	7	8 11a-3p Shop by Appt.	9 10a-3p Shop by Appt. 6:30p-8:30p Gemstones & Faceting Section	10 10a-3p Shop by Appt.	11	12 10a-3p Shop by Appt.
13 10a-4p Shop by Appt.	14	15 11a-3p Shop by Appt. 7:30p-9:30p Paleo Section	16 10a-3p Shop by Appt. 7:30p-9:30p Mineral Section	17 10a-3p Shop by Appt.	18	19 10a-12p Youth Section 12:15p-3:15p Shop by Appt 1:30p-3:30p Beading Section
20 10a-4p Shop by Appt.	21 7:30p-9:30p Lapidary & Silversmithing Section	22 11a-3p Shop by Appt. 7:30p-8:30p General Meeting	23 10a-3p Shop by Appt.	24 10a-3p Shop by Appt.	25	26 10a-3p Shop by Appt.
27 10a-4p Shop by Appt.	28	29 11a-3p Shop by Appt.	30 10a-3p Shop by Appt.	31 10a-3p Shop by Appt.	X	X

THE BACKBENDER'S GAZETTE

NEWSLETTER OF THE

HGMS | HOUSTON GEM & MINERAL SOCIETY

10805 Brooklet
Houston, Texas 77099
(281) 530-0942



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2000 - 1st (Large)
2003 - 1st (Large)
2005 - 1st (Large)
2006-2016- 1st (Large)
2017 - 1st (Large)
2018-1st Large
2019-1st Large

AFMS



AFMS

1998 - 2nd (Large)
2004 - 3rd (Large)
2007 - 1st (Large)
2010 - 2nd (Large)
2012 - 3rd (Large)
2013 - 3rd (Large)
2014 - 2nd (Large)
2017 - 3rd (Large)
2019-2nd (Large)

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