



The

# BACKBENDER'S GAZETTE



*The Newsletter of the Houston Gem & Mineral Society*

**Volume L—No. 8**

**August 2019**



## **President's Message** *by Sigrid Stewart*

**A**s the summer wears on, the heat becomes more and more oppressive. We get up earlier to have a few minutes outside before the temperature rises. We walk at sundown, unless it is raining. Thoughts turn to ways to get away from the heat: the pool, air-conditioned movie theaters, hunkering down at home in the air conditioning, COLORADO! I think most Texans fantasize about decamping to Colorado for the summer.

So let me tell you how two of our members cope. Many of you know Kris and Rachel Dingfield as the dealers with Chaotic2Creation at our Annual Show. Kris is a Shop Manager, and he volunteers at the club. Did you know they are also miners, and have a presence in Colorado?



Rachel Dingfield has taken over the Contin-Tail Gem & Mineral Show August 8–11 in Buena Vista, Colorado, and is now the sole promoter as of this year. They will have some time for digging between that show and the Woodland Park Rock, Gem, & Jewelry Show August 15–18, in which they also participate, and the big Denver Show September 6–15.

Buena Vista is a wonderful town—famous for their hot springs, and very scenic, in the shadow of the Collegiate Range. Woodland Park is west of Colorado Springs and Pikes Peak. This is also not far from their diggings, and if they have a good season, you may see some of their finds in the fall!

**President's Message continued on Page 4**

## **Upcoming Program**

*by Michael Sommers, 1st Vice President*

**G**eneral Meeting Program—August 27, 2019: August program will be a fundraiser auction for the Rock and Gem mag color photo donation.

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*Every article published in the BBG is edited for grammar and content. No flaming is allowed.*

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

*Editor: Phyllis B. George*  
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**Copy is due for the September 2019 issue by Thursday, August 15, 2019.**

*E-mail the Editor at [pgeorge4@comcast.net](mailto:pgeorge4@comcast.net).*

## 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, ¼ page; \$150 for 6 months, ¼ page.

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

## 2019 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 Kuhne .....	Treasurer@HGMS.org
Past President.....	Paul Brandes	
Archeology Section Board Member ....	Nancy Engelhardt-Moore .....	Archeology@HGMS.org
Beading Section Board Member .....	Kim Fuselier .....	Beading@HGMS.org
Day Light Section Board Member .....	Fred Brueckner .....	
Faceting Section Board Member .....	Randy Carlson.....	Faceting@HGMS.org
Lapidary Section Board Member .....	Phyllis George .....	Editor@HGMS.org
Mineral Section Board Member .....	Steve Byskal .....	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 .....	Position Open .....	DayLight@HGMS.org
Gemstone & Faceting Section Chair ....	Randy Carlson.....	Faceting@HGMS.org
Lapidary & Silversmith.....	Margaret Hardman-Muye .....	Lapidary@HGMS.org
Mineral Section Chair .....	Stephen Byskal .....	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 .....	Phyllis George .....	Editor@HGMS.org
Clubhouse Chair .....	Neal Immega .....	ClubhouseChair@HGMS.org
Day Light Contact Person.....	Mary Ann Mitscherling ...	DayLight@HGMS.org
Donations .....	Neal Immega .....	Donations@HGMS.org
HGMS Education Chair .....	Position Open .....	Classes@HGMS.org
Lapidary Templates.....	Mary Ann Mitscherling ...	Templates@HGMS.org
Librarian for Main Library (Acting).....	Neal Immega .....	Librarian@HGMS.org
Publicity Chair .....	Sara Metsa .....	Publicity@HGMS.org
Scholarships.....	Mike Sommers.....	Scholarships@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

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 7:30. The HGMS Web site address is <https://hgms.org>.

President's Message continues

If you can't get to Colorado or to another cool destination, come on down to the club or work in the shop—it's air-conditioned! After all, it is much too hot to work in the yard.



Stan on Display with armored fish and ammonites in the background  
Prepared and displayed at Black Hills Institute, South Dakota.  
2008 photo taken by Phyllis George



Pyrite Pete says,

Whew! The weather has really been HOT these past few weeks. Hope you all are staying cool and comfortable during these hot days. Heat can kill if you aren't careful. Be sure to stay hydrated!

## Archaeology Section

by Nancy Engelhardt-Moore



fter a brief summer hiatus, we are planning exciting programs for the fall. **The next program will be on Thursday, September 5, 2019 at 7:30 p.m.** in the HGMS Clubhouse when **our special guest speaker will be Bryan McAuley**. Please mark your calendar and join us! Refreshments will be available.

**Speaker Biography:** Bryan McAuley holds a BA from the University of Texas at Austin (government/anthropology) and an MA from Texas State University (political science/sociology). He has been involved in public programming and speaking for over 25 years, and he has worked in the tourism industry and museum management since 2000. His early career saw him serve as the first executive director of the Texas Independence Trail Region heritage tourism initiative. He also worked at the Fort Bend County Museum/George Ranch Historical Park. In 2008, Bryan joined the newly formed Historic Sites Division of the Texas Historical Commission and spent a decade as part of the planning team for the new museum facilities at San Felipe de Austin State Historic Site. He also distance-manages the Fannin Battleground State Historic Site. Bryan lives with his wife, Amanda—a school teacher in the Lamar Consolidated ISD, in west Fort Bend County.



**Bryan McAuley**

### Upcoming Program:

**September 5, 2019:** Bryan McAuley will speak on ***“San Felipe—It’s Not Just a Street in Houston; Surprising Stories of Settling in Mexican Texas.”*** This program will offer an overview of one of early Texas’ most misunderstood places. Deep-dive archival research, connected with ongoing archeological investigations, has offered unique insights into this forgotten historic site. You’ll learn about some of the people who settled in Austin’s headquarters town and be surprised by some of the things that happened there that you never knew about or assumed had happened somewhere else. San Felipe de Austin State Historic Site Manager, Bryan McAuley will provide this update and inform you about opportunities to visit and explore the under-told stories of this very real place in Texas’ past.

Biography, program, and photo: courtesy of Bryan McAuley

**October 3, 2019:** Dr. Dirk Van Tuerenhout, Curator of Anthropology at the Houston Museum of Natural Science, will present ***“Indigenous Arctic Cultures: from Earliest Settlers to Today’s Inuit”***. Mark your calendar for this informative talk.

## HGMS Paleo Section Supports National Museum of Geology in Mozambique

by Al Robb

*Member of the Houston Gem & Mineral Society*

In 2017, a collaboration of international paleontologists discovered a significant Permian age forest in the Tete Province of west-central Mozambique. Sponsored in-country by the National Museum of Geology, research on this newly-discovered fossil resource is ongoing, but suffers from a lack of access within Mozambique to applicable reference collections of fossils or technical literature necessary for the research. After many years of pre-independence conflict (up until 1975), followed by post-independence civil war, the technical and scientific infrastructure within Mozambique lacks significant capacity.

Members of the HGMS Paleo Section teamed up to assist by assembling a diverse array of 30 display-quality fossil wood specimens for permanent donation to the Mozambican National Museum of Geology in Maputo (Fig. 1).



**Specimens donated by HGMS Paleo Section in display case at Mozambican National Museum of Geology (MNG) in Maputo; Marcelino Moiana (MNG Geologist) and Nelson Nhamutole (MNG Paleontologist) in photo L-R.**

These specimens represent multiple wood types from varied paleoclimates and ages. Accompanying the donation of fossil specimens was several useful technical references. These included the classic wood identification reference "Identifying Wood: accurate results with simple tools" by Hoadley (1990), as well as two other short helpful papers (Bond and Hammer, undated; Manchester, 1996).

**Thank you letter to HGMS from the National Museum of  
Geology for donation of fossils and references. (Fig. 2)**

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**REPÚBLICA DE MOÇAMBIQUE  
MINISTÉRIO DOS RECURSOS MINERAIS ENERGIA  
Museu Nacional de Geologia**

Houston Gem & Mineral Society (HGMS)

Paleontology Section

Houston, Texas,

U.S.A.

N/Ref. 110/300/MNG/DN/19

Maputo, 20<sup>th</sup> of May, 2019

**SUBJECT: Acknowledgement for Donation of Fossil Wood Specimens**

Dear Members of the HGMS Paleontology Section,

The National Museum of Geology has recently been involved with the discovery of a significant Permian age forest in the Tete Province of west-central Mozambique. We have initiated a research effort to study these fossils and their significance, but our museum lacks reference collections of comparative specimens or technical literature to aid in this research. Your recent donation of fossil wood specimens and reference literature in support of these efforts is greatly appreciated.

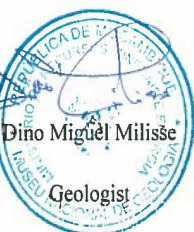

This letter acknowledges your permanent donation of 30 prepared and identified display-quality fossil wood specimens, and 3 very useful technical reference materials to aid in the identification

of fossil woods. We specifically thank the following HQMS Paleontology Section Members for their contributions to this donation: Gary Anderson, Mike Dawkins, Alex Galbraith, Nathan Gandara, Neal Immega, Beverly Mace, Al Robb and Scott Singleton.

The specimens have already been put on public display in the Paleontology Hall of the National Museum of Geology in Maputo, and will serve as valuable reference material for our ongoing research into the ancient floras and environments of Mozambique.

Your continued support for the National Museum of Geology is greatly appreciated.

Sincerely,



Dino Miguel Milisê  
Geologist

NATIONAL DIRECTOR

Cc: Gary Anderson

Mike Dawkins

Alex Galbraith

Nathan Gandara

Neal Immega

Beverly Mace

Al Robb

Scott Singleton

The following HGMS Paleo Section Members contributed to this donation: **Gary Anderson, Mike Dawkins, Alex Galbraith, Nathan Gandara, Neal Immega, Beverly Mace, Al Robb, and Scott Singleton.** Of special note, Neal Immega assembled, prepared, and labeled the specimens, and Scott Singleton provided specimen identifications. The National Museum of Geology provided a nice Thank You Letter to HGMS (Fig. 2—Page 7).

The specimens have already been put on public display in the Paleontology Hall of the National Museum of Geology in Maputo. This donation of fossil wood specimens follows a previous donation by the HGMS Paleo Section of over 75 mostly Texas fossils (brachiopods, crinoids, corals, gastropods, echinoids, ammonites, fish and reptile remains) which have also been put on display at the museum. The Mozambican National Museum of Geology is very grateful for the support it has received from HGMS, and hopes it will continue.

### References Cited:

Bond, B. and P. Hamner. (undated). Wood identification for hardwood and softwood species native to Tennessee. The University of Tennessee Agriculture Extension Service PB 1692, 15p.

Hoadley, R.B. 1990. Identifying wood: accurate results with simple tools. The Taunton Press, Newtown, 223p.

Manchester, S.R. 1996. Petrified woods in Florida. Florida Paleontological Society / Florida Museum of Natural History, Papers in Florida Paleontology 8, 8p.

## Winner of the HGMS 2019 Annual Scholarship Award

*by Michael Sommers  
2018 Scholarship Chair*

**T**he 2019 Houston Gem and Mineral Society Earth Science and Jewelry Arts Scholarship award winner is Kira Mitchell. Kira is transferring this autumn to the University of Houston, Downtown, after finishing her coursework at San Jacinto College. Kira's love for geology started on a vacation to Colorado (completely understandably!), and she plans on an environmental science concentration to a Bachelor of Science degree. She also desires to continue studies toward a post-graduate degree, ultimately a Ph. D. so she can pursue a career in research. When informed of the award, Kira said, "Thank you so much for this opportunity! I feel honored and grateful in accepting this scholarship."

We wish this deserving student the best of luck in



her educational endeavors, and we hope this award helps ease her burden on her way to academic and professional success!

As always, if you know of any Earth Science or Jewelry Arts student from Harris or one of the adjacent surrounding counties, please encourage them to apply for our scholarship.

## General Meeting Minutes

June 25, 2019

by Nancy English, HGMS Secretary

**P**resident **Sigrid Stewart** called the meeting to order at 7:35 p.m. She thanked all 30 people for coming to the June General Meeting. Sharon Thomas, who joined earlier this year, was attending her first General Meeting.

**Minutes:** Steve Blyskal moved to approve the minutes of the May 28, 2019 General Meeting as posted in the June 23, 2019 e-blast and corrected. Mary Ann Mitscherling seconded the motion, and it passed.

### President's Announcements

**HVAC update:** The replacement of one of the two 5-ton A/C units is scheduled for Friday, June 28. This should not impact any scheduled activities for the weekend. The new unit will cool and heat the main meeting area, both libraries, and the office. Thanks go to Fred Brueckner and Sigrid Stewart for meeting with the companies, collating the information from the HVAC companies, and making the bid form to send to the final three companies. Thanks to Nancy English for suggesting Lee Thompson Air Conditioning. Both Fred and Randy Carlson assisted President Stewart interview and choose the company.

**Post General Meeting news:** the 5-ton unit was installed with temporary ductwork while sheet metal ductwork is fabricated. Balancing airflow to libraries and office will be done the first week of August

**Painting:** Look at this room! The woodwork is finished; the two side walls are complete. The back wall needs one more coat. The display cases are cleaned and set up. The contents will be put back later this week. The wall hangings will be put back, and framed posters from past Annual Shows will be hung on the back wall after the second coat of paint is dry. Thank you to Jack Opatrany, Tatyana Kuhne, Steve Blyskal, and Sigrid Stewart who painted. New white paint will be put on the presentation wall. Kris Dingfield volunteered to replace the ceiling above the alcove with solid decking and insulation. Thanks, Kris. Nancy English passed on ideas for murals of minerals, rocks, and fossils on the blank areas of the walls.

**Our New Treasurer,** Tatyana Kuhne, has fully embraced her position. We thank her for volunteering for this daunting job, learning Quicken, and setting up schedules for payments through out the year.

**The Silent Auction** opened at 7:00 p.m. Bids will end after the break. Payment for winning bids will be collected after the program—**cash or check only.**

### Section/Committee Reports

In the interest of time, President Stewart asked members to look for reports of Section news in the BBG, on the Web site <https://hgms.org>, or by reading the weekly e-blast from Jim Kendall for

future Section meetings and presentations. If you are a member and not on Jim Kendall's e-mail list, please contact him at [kendallja@att.net](mailto:kendallja@att.net). President Stewart invited other Section Chairs and Standing Committee Chairs to make any additional announcements.

Nancy English announced that the **Day Light Section** meeting is **postponed to July 10, 1:00 to 3:00** because of the Fourth of July holiday. She introduced **Diane Schaub**, who will teach the program. Diane said members will learn how to make a coaster-sized mosaic. There will be a small cost for supplies—\$3.00 to \$5.00. Diane will bring some small pieces of glass to use. Members should bring small cabs, buttons, coins, nice trinkets you may want use on your coaster. Items should be non-porous and flat on the bottom. Contact Nancy English to RSVP for the class.

**Paleo Section:** Neal Immega, Paleo Section Chair and Houston Museum of Natural Science Docent, announced that at the HMNS during the summer, Thursdays are admission-free from 6 p.m. to closing. Neal will give tours of the Paleo Hall to HGMS members starting at 6 p.m.—**IF** you call him in advance to schedule his time.

### Old Business

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

**Education Classes:** Several people have said they would give a class. Randy has a Faceting Class scheduled. Watch the weekly e-blast and check the Web site for upcoming classes.

**Library:** A Dell desktop PC has been purchased for the library and installed along with TechSoup discounted Microsoft Office 2019. The CZUR scanner is connected and working. The scanner and software appear to perform extremely well, and they will allow scanning and digitization of most library materials—as needed. We are in the process of learning what the scanner can do and how best to use it. We will likely buy a new printer of some sort that will allow wireless printing in the library, from the main classroom, and possibly from anywhere in the building. When asked for a comment, Neal said, “Come in, check out a book.”

### Shop News:

**Adjustable chairs:** All agreed that Tony Lucci will be in charge of selecting and obtaining the proper chairs and securing them to the benches.

**The Lapidary Section** has requested a set of grinding wheels with wide (3”–4”) belts for use by people wanting to polish large rocks. Using the narrower wheels for polishing large rocks destroys the belts. The narrower wheels are only meant for working on cabochons. Also, some new wheels would be good.

**Web Site Committee:** The committee discussed syncing users for MailChimp and realized there are some problems that will be addressed. Sarah is reducing the list—if the recipient does not answer an email, that name is removed. Lauren corrected some problems with images in the Media Library. Sigrid fixed a problem with tax on a Paleo book order. The team discussed changes and additions to be made before the November show.

**Doorbell:** Tony Lucci installed two doorbells that also include a flashing light. One is located in the shop; the other one will go on the wall in the meeting room after the painting is finished.

**Field Trips:** Mike Sommers scheduled another Midlothian field trip, this one is for July 13, 2019. Watch for more information in the weekly E-blast. Every trip scheduled since October of 2017 has

been rained out.

**Trade Show Meeting:** The Trade Show Committee met on June 22, 2019 to wrap up the April Show and to start work on the January 2020 Show.

### New Business

**Security:** On June 14, Audrey Kelly at Dunn Southwest reported that a robbery occurred June 13 in the OnePoint parking lot between the hours of 9:30 pm and 6:00 am. A van was broken into and tools were taken. The gate was left open overnight. Cameras did not get details. There is still no further information on this.

In May, Randy Carlson's truck was broken into in the HGMS parking lot.

President Stewart cautioned members to lock their cars and trucks and to leave the building in pairs after nighttime meetings.

**Fabrication Classroom Exhaust Fan:** Tony Lucci volunteered to install an exhaust fan in the Fabrication Classroom that will vent out of the building roof.

**The next Board meeting is July 2, 2019 at 7:30 p.m.**

**The next General Meeting will be Tuesday, 7:30 p.m. July 23, 2019.** Neal Immega will give a talk on the Agate Expo in Austin and on agates in general.

**President Stewart** asked if there was any further New Business. There was none.

### Show 'n Tell:

**Steve Blyskal** and President Sigrid Stewart attended the Agate Expo in Austin. They went to interesting talks on agate locations in Mexico, Germany, and New Mexico. Other talks presented covered Laker agates, Argentina agates, Russian agates, Idaho agates, and jaspers and the agates of the Southwest USA. There were 20 very nice exhibit cases featuring many different kinds of agates. Special ones were on Alibates Flint (Texas) and an exhibit of South Texas agate by Matt Dillon, a club member. Steve showed agate specimens he had acquired at the show, including Agua Nueva agate, Laguna Agate, Moctezuma Agate, and a few Laker agates. He also found some minerals to purchase including a rhodochrosite and a fluorite, both from Mexico.

**Scott Singleton** brought two spheres made by HGMS member Nathan Gandara. The spheres were made from Scott Singleton's Teredo-bored petrified wood from Kerr County, Texas.

**Drawing:** Scott Singleton won the chunk of lepidolite rough. Nancy English won the Lapidary T-shirt.

President Stewart reminded the crowd to check the Silent Auction table during the break and to make their final bids. Payment will be taken by check or cash after the program.

**Adjourn:** Phyllis George moved to adjourn the business meeting, and Steve Blyskal seconded it. The meeting adjourned at 8:10 p.m.

**Refreshments** were served by Jack Opatrany. Thank you, Jack. Members were reminded to **FEED THE KITTY!**

**President Stewart** explained that the refreshments will be reimbursed up to \$25.00.

No one offered to bring refreshments to the next General Meeting on July 23, 2019.

**Vice President Sommers introduced the Program:** Neb Mekonnen gave a presentation on Ethiopian opals. We heard details of his adventures in sourcing the material along with valuable information about the opals themselves. Neb, owner of The Opal Trove, showed amazing pictures of the Opals found in Ethiopia.

## Board of Directors Meeting Minutes

July 2, 2019  
by Nancy English

X	President—Sigrid Stewart	X	Beading— Ann Money
	Former President—Paul Brandes	X	Day Light—Fred Brueckner
	1st Vice President—Mike Sommers	X	Gemstones & Faceting—Randy Carlson
X	2nd Vice President—Beverly Mace	X	Lapidary & Metalsmithing—Phyllis George
X	Treasurer—Tatyana Kuhne	X	Mineral—Steve Blyskal
X	Secretary—Nancy English	X	Paleontology—Mike Dawkins
X	Archaeology—Nancy Engelhardt-Moore	X	Youth Section —Beverly Mace

**P**resident Sigrid Stewart called the meeting to order at 7:33. A quorum was present. Non-voting members Foster Kneeland and Maggie Manley (future Education Chairman) attended.

**Approval of Minutes:** Phyllis George moved to approve the minutes of the June 4, 2019 Board meeting. Beverly Mace seconded the motion, and it passed.

**TREASURER REPORT:** Treasurer Tatyana Kuhne emailed the financials to the Board members on July 1, 2019. On June 17, 2019 Beverly Mace, Sigrid Stewart, and Nancy English met at a Prosperity Bank in Katy to sign new signature cards for the account designated as “Building Account.” As HGMS Secretary, Nancy English can authorize Sub-Users on the account with limited access. Nancy authorized Tatyana to view and make deposits to the account.

This account has had no activity for years except for interest deposits. Nancy English moved, starting July 15, 2019, to deposit \$100.00 per month into the Building Account from the Chase checking account that is used as the operating account. Phyllis George seconded it, and it passed.

## COMMITTEE REPORTS

**BBG Editor:** Articles for the August BBG are due Saturday, July 15, 2019. Our award-winning BBG editor is preparing to step down after twenty-three years. Phyllis George has put us on the publication map with her creative genius and editorial skills. She has asked us to start looking for a new BBG Editor. Phyllis plans to continue through year-end 2019 to submit HGMS articles from the BBG to the 2020 SCFMS Bulletin Editors’ Contest. Her final month might be February 2020—the month in which contest entries likely will be submitted.

**Education Committee:** The Board welcomed Maggie Manley as the new Education Chairman. After last month’s BOD meeting, Nancy English emailed several members who taught classes in the past and some new ones. Responses were positive. Most responders want better grinding and polishing wheels in the shop. The Jewelry Lab needs upgrades on which Tony Lucci is already

working.

Nancy English suggested that Maggie adopt both Methods for creating classes in accordance with the edited document President Stewart presented a couple of months ago. Until we have an established routine, we could rely on both methods. Nancy Engelhardt-Moore edited Sigrid's "Setting up Classes" document. Further edits were suggested. Change Club use fees to "Other rooms' fees" to \$5.00 for half day and \$10.00 for full day. Fred Brueckner suggested that classes be arranged 30 days in advance to allow news to be put in the BBG. Other suggestions were adopted. Corrected document will be sent to BOD and Maggie.

**Library Committee:** Neal Immega and Jim Kendall have installed the new computer and scanner. Jim is looking at printers. Big furniture changes—the metal hanging file has been evicted. Neal built 30 feet of shelf space where the hanging files cabinet had been. The new library desktop now has space for the scanner setup.

The office desk has been discarded and is available to a good home. The new space left in the office allowed Neal to move the hanging file cabinet with all the state topographic files into the office. More book moves are coming.

**Publicity Committee:** MailChimp cleanup removed about 3000 subscribers which will decrease our monthly cost by at least \$20 a month. These people have not opened an email for the last two campaigns. Everyone was given the opportunity to let us know that they wanted to stay. About 120 people emailed me to say they wanted to stay on our list.

**Scholarship Committee:** We received one applicant this year—Kira Mitchell of San Jacinto Community College. She transfers to U of H Downtown this fall. Douglas Dodds has approved adding his scholarship bequest into this year's scholarship award, raising the amount to \$3,000. Fortunately, Kira is qualified and seems to be deserving. She had a strong recommendation letter, and her coursework looks good. The BOD reviewed her documents. Sigrid Stewart moved to accept Kira Mitchell as the recipient of the 2019 HGMS \$3000.00 Scholarship. Phyllis George seconded it, and it passed.

**Show Committee:** Via email, **Scott Singleton** has no report. He deferred to Steve Blyskal. As of the last BOD meeting, there were three dealer vacancies. Steve filled two of them. Still looking for a dealer to fill a space in the main hallway.

**2019 Trade Show Committee:** The minutes have not been completed and approved yet. Nancy English will send them to the BOD when they are finished.

**Web site Committee:** The committee is working on Annual Show projects. Sigrid thinks she has the Paleo Book sales issue fixed.

## SECTION Reports

**Archaeology Section: Thursday, 7:30 p.m., September 5, 2019.** Archeology is on summer hiatus.

**Beading Section: Saturday, 1:30 p.m., July 20, 2019.** Stitch Craw Cubic Right Angle Weave. The use of this method can create beautiful results in any piece. Kim will bring examples of the stitch used in a few of her projects. Bring your own supplies. See list on the Web site.

**Day Light Section: Wednesday, 1:00 p.m., July 3, postponed to July 10,** On July 10, Diane Schaub will show us how to make a mosaic about the size of a coaster. Diane will bring small pieces of glass to use. Members should bring small cabs, buttons, coins, nice trinkets to put in your mosaic. Items should be non-porous and flat on the bottom. We will use sanded grout on the mosaics,

which means that soft or easily scratched items should be avoided. Supplies cost \$4.00. Contact Nancy English to RSVP for the class.

**Gemstones and Faceting Section: Wednesday, 6:30, p.m.,** The meeting will be a continuation of gemstone enhancements and hands-on use of a refractometer for gem ID.

Randy Carlson is giving a Faceting 101 class on July 13 at the HGMS Clubhouse. The cost will be \$99 per person. At this point, he has room for only three more students. If you are interested, first send a reply to [RLCarlson01@gmail.com](mailto:RLCarlson01@gmail.com) that you want to take the class, and second, send your check to Randy (check made out to "HGMS Faceting Section," or cash) **by 03 July**. Your position is not secured until your payment is received.

**Lapidary and Silversmithing Section: Monday, 7:30 p.m. July 15, 2019** Cathy Prieto-Smith will teach a class in **Dichroic Glass**. The business meeting will be shortened, no Show-n-Tell. The class size can only be **ten (10)** people. You must **RSVP by Friday July 12, 2019, NOON.** [c.prietosmith@charisma-designs.com](mailto:c.prietosmith@charisma-designs.com). Cathy will send you a Dichroic Glass pdf of instructions once you have confirmed your spot with her. All tools and supplies will be provided for a cost of \$6.00. Each student will take home one finished piece. If you took the Day Light Section class in June, you are not eligible for this class. Cathy does not allow people to audit her class. No walk-ins. You must preregister.

The **August 19, 2019 program** will be "How to Judge stones."

**Mineral Section: Wednesday, 7:30 p.m., July 17, 2019 No meeting.** Section Chair Steve Blyskal on vacation.

**Paleo Section: Tuesday, 7:30 p.m., July 16, 2019.** Mike Dawkins will present photos from the Beijing Natural History Museum and the Geological Museum of China.

The Houston Museum of Natural History is free Thursday evenings 6–9 p.m. for the summer. Neal will give a free tour of the Paleo Hall, leaving from the Paleo Hall entrance at 6:00 p.m., **if you contact him the day before (Wednesday)**. If no one arranges for a tour, he will not be there. [nealimmega@gmail.com](mailto:nealimmega@gmail.com)

**Youth Section: Saturday, 10:00 a.m. to Noon, July 6 and July 20 Making cabochons.** The Youth Section averages eight to nine kids each meeting.

## OLD BUSINESS

**Building Issues: HVAC:** On June 28, The Lee Thompson Company installed a 5-ton A/C unit for the main hall, using temporary ductwork while sheet metal ductwork is fabricated. They returned Tuesday, July 2 to complete installation of the fabricated sheet metal and some new ductwork, and to perform rebalancing of air flow to the libraries and office. The plenum is in worse shape than originally thought. The Company will return to fix the plenum, dampers and more duct work. They finished the original contracted work. Sigrid moved to replace the plenum, dampers, and duct work. Tatyana Kuhne seconded the motion, and it passed. While the installers were working on the 5-ton, the air went off in the workshop. They did some troubleshooting to be sure they had not caused it. The contractor was welded closed which kept the compressor running, but iced the coils closed. This blocked the air flow. They replaced the contractor for free. They suggested that the filters be changed more frequently.

**Restrooms:** Neal replaced the flapper for the Men's toilet. The Board would like to have exhaust fans installed in the Restrooms. It was pointed out that an electrician would need to install them.

**Doorbell:** Tony Lucci installed two doorbells that also include a flashing light. One is located in the shop; the other one will go on the wall in the meeting room after the painting is finished.

**Fabrication Classroom Exhaust Fan:** Tony Lucci volunteered to install an exhaust fan in the Fabrication Classroom that will vent out of the building roof.

**Paint the Main Hall:** Thanks to Jack Opatrany, Tatyana Kuhne, and Steve Blyskal who painted. Thanks also to Steve Blyskal and Sigrid Stewart, who moved the display cases, dusted them, and returned them to their original position after the painting was finished. Tatyana will pick up the projector wall paint to be put on the presentation wall. A second coat needs to be put on some walls. Posters will be re-hung. The shelf above the north door and windows has a gap and leak. Tatyana will vacuum the debris out of it, caulk it, and paint it. The BOD discussed painting HGMS on the presentation wall. The consensus was mixed. Presenters on the BOD thought it would be distracting. Some members agreed that it would.

**Kris Dingfield** volunteered to replace the ceiling above the alcove with drywall and to add insulation. Thank you, Kris, it looks great.

**Trophies:** All the trophies that were up above the "front" door are in bad shape. Many have fallen down over the years because the trim board slants. Some have lost their identifying marks. Sigrid will cull them and throw some away. One in particular is on a slab of nice copper ore. She will remove the brass ornament and put the slab in an auction. There is logical place to display it.

**Building Security:** A burglary occurred in the OnePoint parking lot June 13 between the hours of 9:30 pm–6:00 a.m. A van was broken into, and tools were taken. The gate was left open overnight. Cameras did not get details, and no other information is available. The HGMS outdoor cameras are working. President Stewart reminded people to leave in pairs at night and to lock your cars.

**Donations:** On June 17, 2019, Nancy and Tom English, Sigrid Stewart, Steve Blyskal, and Beverly Mace picked up a large fossil, mineral, and rock collection from Linda Saxman. Kris Dingfield helped move it to the attic. It still needs to be cataloged. Linda gave us lists and labels for the pieces. She wants a 50/50 split of the proceeds. Nancy explained to her that we will have a Show Auction and Christmas Auction, and the Treasurer would forward money to her after that.

We still have a lot of work to do on our Donation Policy decisions. Randy Carlson and Tatyana Kuhne will invite Neal Immega to join them in creating good procedures for accepting, logging in, locking up, and dispensing donations.

### Shop News:

**Adjustable chairs:** Tony Lucci will be in charge of selecting and obtaining the proper adjustable chairs for the jewelry lab. Tony said the chairs would be cable-wired to the benches in the classroom. All agreed that Tony is doing a thorough job of upgrading the Jewelry Lab, and he does not need to be micromanaged by the Board or other members.

**The Lapidary Section** has requested a set of grinding wheels with wide (3"–4") belts for use by people wanting to polish large rocks. Using the narrower wheels for polishing large rocks destroys the belts. The narrower wheels are only meant for working on cabochons. New wheels of all sizes are needed. The BOD addressed this issue last year and agreed to make available whatever money Neal needs to upgrade the wheels and saws. President Stewart will inform him of the Board's decision.

**Blades:** Neal Immega bought Bill Moore's stock of diamond blades. The shop is well set up with

24" saw blades, so go ahead and use the Texaco saw.

**Shop IOUs:** Sigrid is notifying the Shop Managers that we need a stronger solution to the problem of IOUs.

### New Business

**Lorton Data contract renewal:** Beverly Mace said this computer program has worked well for the past two years in preparing postcards, BBGs, and Rosters for mailing. She would like to continue using it. The renewal fee is \$425.00, and the Board agreed to fund it.

**Insurance policy:** President Stewart, Mike Sommers, and Scott Singleton are reviewing the Club insurance policy to review liability coverage. Nancy English is investigating Surety Bonds for the bank account signers. Sigrid sent Scott Singleton a digital copy to study.

**Dunn Southwest Annual meeting:** Nancy English will be attending this meeting on Wednesday, July 17, 2019 3:00 p.m.

**The next Board of Directors meeting will be Tuesday, 7:30 p.m. August 6, 2019.**

**The next General Meeting will be Tuesday, 7:30 p.m. July 23, 2019.** Neal Immegea will speak about attending the Agate Expo in Austin.

**Adjourn:** Mike Dawkins moved to adjourn. Ann Money seconded it. The motion passed, and the meeting adjourned at 9:24.



### SCFMS President's Message

*by Roger Burford  
from SCFMS Newsletter –07-08/2019*

Last time, my note explained some of the many benefits of belonging to a Federation like our own South Central Federation of Gem and Mineral Societies. There are so many more that I just could not list them all. This time I want to take from President Kennedy's inauguration speech and say, Ask not what your club/federation can do for you, ask what you can do for your club/federation. There are so many positions in most clubs and even in the Federation that seem to go unfilled every year. No one seems to want to raise his or her hand to volunteer for almost any position. Just think what you can contribute—you would spend only a few hours a month to handle almost any of them.

Almost every club has a core of 10 to 20 people who do the day-to-day functions of your club. By adding your name, you add new blood and new ideas gleaned from the differing experiences you have had—both in our hobby and in your work. Clubs need people to help check out rockhounding locations, create training programs covering any number of subjects, and teach what you have learned over time.

So during this year, please raise your hand and be a part of the growth and improvement of your club.



## Jewelry Bench Tips

by Brad Smith

Work Smarter With Brad's "How To" Jewelry Books

[Amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith)

### FINISHING PIERCED PATTERNS

After sawing patterns, there always is a little cleanup to do, and the smaller cutouts can be a challenge. Needle files (7–8

inches) can get into the larger areas, and escapement files (4 inches) can get into some of the corners.

But I often want even smaller files. I could not find them even at a

watchmaker tools supply company, so I had to try something else. I ended up grinding down the tip of a 4" barrette file using a separating disk (or cutoff wheel) in the Dremel or Foredom.

Be sure to wear your safety glasses when using this tool. A flake of steel in your eye makes for a bad day.

### MAKING FILIGREE WIRE

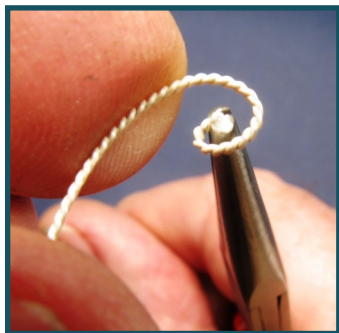
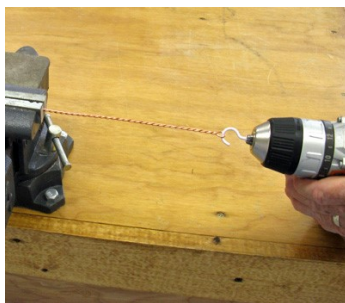
Making wire for filigree is quite simple. Take a double strand of 24–26 gauge silver wire, twist it tightly, and then flatten it a bit. While the basics are straightforward, here are a few tips that will quickly make you an expert with filigree:

Filigree looks best when the wire has a very tight twist. The way I do this is to start with dead soft wire and twist it until it breaks. It always seems to break on one end or the other.

I like to use a screw gun, although a Foredom also works well. You will need a small hook in the spindle—either a cup hook from the hardware store or a nail that has been bent into the shape.

Be sure to keep a little tension on the wires as you twist. Then to get a really tight twist, I anneal the wire and twist it a second time until it breaks.

The final step in prepping the filigree wire is to flatten it slightly with a planishing hammer or rolling mill. The amount of flattening is a personal preference. I like to reduce the diameter about 25%. The wire will be quite stiff at this point, so it's best to anneal it again before starting to make the filigree shapes.



## Calcite

by Don Shurtz

*Pleasant Oaks Gem and Mineral Club of Dallas  
from Chips and Chatter 07/2019*

### What is Calcite?

One of the most common minerals,

calcite is scientifically known as calcium carbonate,  $\text{CaCO}_3$ . Forming in a trigonal crystal system, it is the defining mineral for Mohs hardness 3. Generally clear or white, calcite can also be gray, yellow, or green. Calcite crystals are birefringent, meaning the specimen has different refractive indices



Carved Calcite from China

depending on the polarization or direction of the light when viewing it. Some calcite will also fluoresce when exposed to short- or long-wave ultra-violet light—and sometimes both! The fluorescent color can be various—red, blue, orange, yellow, and other colors. Calcite's name derives from the German word *Calcit*, which in turn comes from the Latin word *Calx*, meaning "lime." Of the three calcium carbonate polymorphs—calcite, aragonite, and vaterite—calcite is the most stable. Although each of the three minerals has the same chemical formula, aragonite forms in the orthorhombic crystal system, while vaterite forms in the hexagonal crystal system. Calcium carbonate can grow into massive forms, the most common being limestone and chalk.

### Calcite vs. Quartz

On first examination, calcite is sometimes confused with quartz, but two quick tests can easily show their difference. A scratch test with a nail or pocketknife will show calcite is softer than quartz. Calcite will scratch, but quartz will not. Weak acids will dissolve calcite but will not dissolve quartz. A few of drops of vinegar will bubble on calcite, but will not on quartz.

### Varieties of Calcite

A favorite for many mineral collectors, calcite crystals are relatively inexpensive compared to most mineral crystals. The rhombic crystals of optical calcite, generally from Iceland, spar calcite crystals are a favorite with many, due to their strong birefringence. Popular varieties include dogtooth spar, calcite satin spar (not to be confused with satin spar, which is gypsum) hogtooth spar, angel-wing calcite, poker chip calcite, nail-head spar, and others. Popular, but rarely

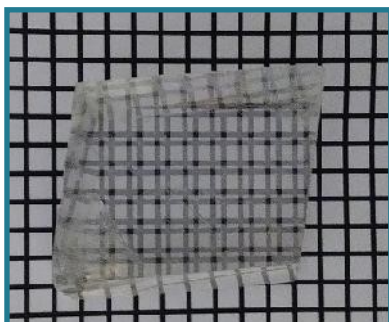


Calcite from Reynolds Co., Missouri

collected, is calcite found as stalagmites, stalactites, and flowstones found in caves, for these are just too beautiful to be removed from their natural environment.

### Calcite's Practical Uses

Not only a mineral specimen, calcite has practical uses! While its Mohs hardness of 3 is not particularly useful for jewelry, calcite's softness makes it easy to carve. The ancient Chinese and Egyptians were the first of many cultures to carve ornate items from calcite. During World War II, optical calcite was essential for use in creating gun and bombsights. Today, calcite is used for soil conditioning and concrete repair. As for the future, experiments with Calcite aim at creating an invisibility cloak!



Optical Calcite exhibiting Birefringence

### References

Minerals.net: <https://www.minerals.net/>

Mindat: <https://www.mindat.org>

Wikipedia: <https://en.wikipedia.org/wiki/>

Pictures by Don Shurtz

## Geology of Leonardo's *Virgin of the Rocks*

by Steven Wade Veatch

from the Colorado Springs Mineralogical Society's  
Pick & Pack 05/2018, via AFMS Newsletter 06/2019

Leonardo da Vinci (1452-1519), considered to be one of the greatest painters of all time, used his knowledge of geology to inform his art. Leonardo was also noted for his work in sculpture, anatomy, mathematics, architecture, and engineering during the Italian Renaissance (about 1330 to 1450). From a geological perspective, Leonardo da Vinci's paintings present a realistic portrayal of nature. In his *Virgin of the Rocks* (1483–1486), on display in the Louvre in Paris, the geological accuracy is striking (Pizzorusso, 1996). The painting's subject is both the Virgin and the rocks. The Virgin sits in front of a grotto or cave. Various aspects of the grotto, according to geologist Ann Pizzorusso (1996), "are rendered with astounding geological accuracy. Leonardo has painted a rich earthscape of rock eroded and sculpted by the active geological forces of wind and water. Most of the rock formations...are weathered sandstone, a sedimentary rock." What looks like basalt, an extrusive igneous rock formed by the cooling of lava, appears above Mary's head and at the top right of the picture. Leonardo even painted the columnar joints formed by the cooling of the rocks. Also, just above her head is a precisely painted seam between the sandstone and igneous formations, and a rock joint runs horizontally to the right of her head. Art historians believe that the landscape in this painting is not an actual place, but one conjured up by Leonardo's experience, understanding of geology, and observation (Issacson, 2017).

A second version of the painting, also called the *Virgin of the Rocks* (1495–1508), is exhibited in the National Gallery in London. This painting fails to depict such a faithful rendering of geology as the one in Paris. Despite decades of analysis by scholars, there are doubts that it is an authentic [Leonardo] painting, but rather a copy of the original painting by another artist.

Leonardo da Vinci was ahead of his time in his understanding of geology, and he recorded his observations in notebooks and journals (Bressan, 2014). After his death, his notebooks ended up on the bookshelves in libraries and private collections throughout Europe, while other notebooks disappeared into history (Waggoner, 1996).

[Leonardo] wrote in one of his notebooks, the *Codex Leicester*, about the fossils he found as he walked the countryside. [Leonardo] recognized that fossils were the remains of once-living organisms and relics of former times and other worlds—traces of a past hidden to other thinkers of the time. [Leonardo] also observed that distinct layers of rocks and fossils covered large areas, and the layers were formed at separate times—not in the single biblical flood (Issacson, 2017). And centuries before Darwin, Leonardo conjectured through his understanding of rocks, fossils, and the slow processes of erosion and deposition, that the world is much older than what church

fathers proclaimed (Jones, 2011).

From his studies of geology, Leonardo learned how the Earth works and improved the realism of his paintings.

Leonardo da Vinci's observations of fossils found on the tops of mountains wore a path through his thoughts. Since fossils are found in the mountains, the surface of the Earth, Leonardo posited, has changed over time. For example, an ancient sea is now dry land (Jones, 2011). Leonardo concluded that as mountains formed, they lifted marine sediments carrying fossil-bearing rocks skyward to become mountain peaks. Today, geologists know that tectonic plates and other geological processes form mountains.

In another of his notebooks, the *Codex Arundel*, now housed in the British Library, Leonardo describes graded bedding in layers of sedimentary rocks (Pedretti, 1998). He



**Leonardo da Vinci 's *Virgin of the Rocks* (1483-1486)**

**Location:** Louvre, Paris

**Oil on panel transferred to canvas**

**Height:** 199 cm (78.3 in). **Width:** 122 cm (48 in)

**Image is in the public domain.**

also had a basic understanding of the superposition of rock strata, where the oldest rocks in a sequence of sedimentary rocks are at the bottom. This concept would not be recognized until the second half of the 17th century when Danish geologist Nicolas Steno, carrying the light of learning, took up the subject in 1669, laying the foundation for modern stratigraphy and geological mapping (Capra, 2013).

[Leonardo] never published his theories. He only wrote his observations in his notebooks, which ended up scattered or lost. For more than three hundred years, his notes were not part of the progression of science. It was left for future scientists to rediscover Leonardo's observations on the vastness of geological time, sedimentary layering, and the significance of fossils, and to make these discoveries part of science.

Leonardo da Vinci's endless curiosity and boundless creativity made him the quintessential Renaissance man. He was a keen observer of nature whose interest led him to paint nature not only beautifully, but also accurately.

### Works Cited :

Bressan, D. (2014, April 17). "The Renaissance's Contribution to Geology: Landscape Painting." Retrieved from *Scientific American*: <https://blogs.scientificamerican.com/history-of-geology/the-renaissances-contribution-to-geology-landscape-painting/>

Capra, F. (2013). *Learning from Leonardo: Decoding the Note-books of a Genius*. New York: Berrett-Koehler.

Issacson, W. (2017). *Leonardo da Vinci*. New York: Simon & Schuster.

Jones, J. (2011, November 23). "Leonardo da Vinci's earth-shattering insights about geology." Retrieved from The Guardian: <https://www.theguardian.com/artanddesign/jonathanjonesblog/2011/nov/23/leonardo-davinci-earth-geology>

Pedretti, C. (1998). *Il Codice Arundel 263 nella British Library*. Florence: Giunti.

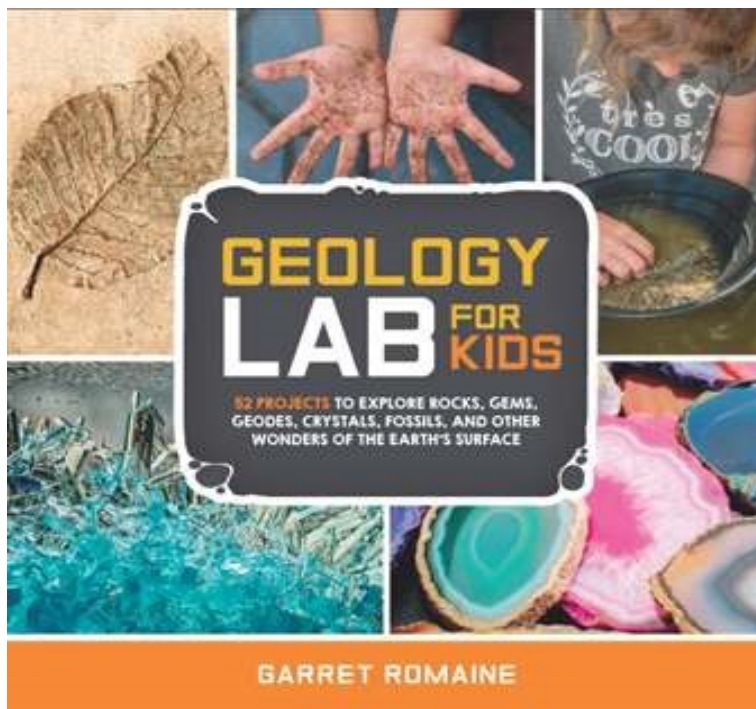
Pizzorusso, A. (1996). "Leonardo's Geology: the Authenticity of the Virgin of the Rocks." *Leonardo*, 440.

Waggoner, B. (1996, January 3). "Leonardo DaVinci." Retrieved from University of California Museum of Paleontology: <http://www.ucmp.berkeley.edu/history/vinci.html>

1Ed: I have replaced the use of *da Vinci* as a surname with *Leonardo*, in brackets. It is not widely understood today, but referring to *da Vinci* as his surname is incorrect. If you use only a single name, refer to him as *Leonardo*, not as *da Vinci*. He was illegitimate and was never officially recognized by his father, so according to the practice of the time, Leonardo had no surname. *Da Vinci* means "from Vinci." In the Renaissance, it was a common practice to refer to persons who had no surname by the name of their place of residence or origin.



**Corundum—from SCRIBE DVD**



## Geology Lab for Kids—INTRODUCTION

via SCFMS-NEWSLETTER 07–08/2019

**G**eology is the science of the Earth and learning to describe what you see so that someone else can understand. Once you get good at talking about the world around you, it is not hard to take that to the next level and figure out what happened to the Earth in the past, even if you cannot see it happening today. Nobody has ever traveled to the middle of the Earth, but by making models based on places we have been, we think we know what is going on there. That is science—make a prediction, see if you can prove it, and then apply it to bigger questions.

In this book, you will learn a lot about the way things happen and why. You will be introduced to the science behind processes you see all around you, and you will learn to think about the Earth in new and exciting ways. Some of the most important parts of geology come down to very simple concepts—gravity, friction, heat, and water. Some things you will learn about are:

**How to make your own crystals.** Learn how crystals form and how to tell them apart. All rocks contain crystals, so this is a perfect place to begin.

**The differences between major rock types.** Learn how the three main groups of rocks form. You will discover the forces behind igneous, sedimentary, and metamorphic rocks.

**Identification and prospecting.** See how scientists tell gems from ordinary crystals and how they learn to look for valuable rocks. Once you learn how to tell one mineral from another, you can start to identify the rocks you find all around you.

**How things break down (entropy).** See how Earth's forces take fresh, young lava flows and turn them into sand at the beach. The sun plays a part, too, and so do plants. Entropy is the idea that everything breaks down eventually. Steel will rust, and mountains will crumble.

**Fossils are the clues of life.** Our planet has an amazing fossil record to discover. Learn how scientists uncover clues about what Earth was like millions of years ago.

**Why space rocks are important.** Learn how comets and meteorites can rearrange the Earth's surface.

**Rocks can be more than just rocks.** Now that you know what is going on inside a rock or crystal, you will see what you can do with rocks and minerals in work and play. There are many ways to display your treasures and use them to create art or everyday objects. Early humans used the materials around them for tools, and you can, too. **Geology uses a set of vocabulary.** Many of the words are ancient, dating back to the earliest times. Many foreign languages have found their way into geology as well. For example, the German words *schist* (pronounced "shist") and *gneiss* (pronounced "nice") both describe certain metamorphic rocks. Two Hawaiian words—*aa* (pronounced "ah-ah") and *pahoehoe* (pronounced "pa-hoy-hoy")—are used to describe lava flows, as there is so much volcanic activity on the Hawaiian islands. *Aa* lava is jagged and blocky, while *pahoehoe* lava is ropy and runny. These are just some of many examples. Geology is based on observations and predictions that are part of the scientific model. Fortunately, the Earth works in a way we can understand, so if we can make the right model, we can use what we see in that model to predict other forces. We can measure things at a small scale, and we can make models to teach others.

Even simple, fun projects can show the larger world at work. The labs and projects in this book will help you understand how much fun it is to learn about the world around you. The best part is that most of these labs do not require a lot of expensive materials; many of them are easy to complete with items you find in your parents' kitchen or garage.

But if you want to get super serious about understanding the world around you, this book will help you with that, too. Some of the materials will take a little more searching to find, and you may want to get help ordering items online that you can't easily track down. That can be part of the fun too—you may get to go to thrift stores or second-hand stores to find used pots and pans, for example. You should also expect to visit a craft store to find some of the items you will need. Finally, be sure to visit a local rock and gem shop to find samples, books, tools, and advice on how to begin your own collection.

Over the years, I have spent countless hours working with kids just like you in lectures, at demonstrations, and even as a merit badge counselor, helping them understand the world around them. Many of the labs



here are time-tested, having been around for years. But some are completely new or bring a new twist to an old idea.

We will start with simple concepts and then connect the dots to bigger ideas. In that way, these labs are like building blocks: start small and keep building. At some point, you will probably find that you are learning how more and more pieces of the puzzle fit together. That has always been the most enjoyable for me, showing others how all the different things they already know can apply.

It is always a lot of fun to go to the beach and pick up a few rocks, but when you know how to identify the rocks and explain how they got there, you feel like a detective solving a big riddle. Some of you may even go on to careers in the Earth sciences or become planetary scientists who travel to distant locales. I hope that is the case!

Let's get started. And remember: No one likes a messy lab partner!

Do not hesitate to check out Garret Romaine's other books on Amazon.com. Please, include the below link anytime this information is shared.

[https://www.amazon.com/Garret-Romaine/e/B0037187T8?ref=sr\\_ntt\\_srch\\_lnk\\_1&qid=1562390494&sr=8-1](https://www.amazon.com/Garret-Romaine/e/B0037187T8?ref=sr_ntt_srch_lnk_1&qid=1562390494&sr=8-1)

## EARLY NATIVE AMERICANS COLLECTED FOSSILS

*by Jennifer Haley, AFMS Historian  
from AFMS April/May 2019 newsletter,  
via SCFMS Newsletter 07-08/2019*

**H**ave you ever wondered whether the early Native American Indians not only found but treasured fossilized dinosaur bones before the early settlers arrived? I was curious and looked for information about that subject to add to what we know about early paleontology. I found a gem of a thick book called, **FOSSIL LEGENDS of the FIRST AMERICANS**, by Adrienne Mayor. The information in the book is sourced from paleontologists, archaeologists, artifacts, pictographs, and oral histories. The book includes some photographs.

There is evidence that the early Native Americans were familiar with finding large dinosaur fossil tracks. Often smaller fossils such as mammoth teeth and other types of bones were used in medicine pouches, and a range of various fossils was used by Medicine Men and Medicine Women.

There were great stories and myths about the creatures belonging to the larger fossils that became legends in their culture, full of rich imagination and surprisingly close in some instances to what paleontologists now know about some of the "giant lizards" who long ago roamed our earth.

There is wonderful information in the book to share around the campfire and for articles in your newsletters. Juniors have great imaginations, and they would love to hear about this fascinating period in paleontology history.

**FOSSIL LEGENDS OF THE FIRST AMERICANS**, by Adrien Mayer, would be a great addition to your society libraries, too.

## Show Time 2019–2020

- Aug 2-4 Prescott, AZ **RMFMS** hosted by Prescott Gem & Mineral Club  
Prescott Valley Event Center at Glassford Hill & Florentine  
<http://www.prescottgemmineral.org/>
- Aug 10-11 Baton Rouge, LA Baton Rouge Gem & Mineral Society  
Lamar Dixon Expo Center, 9030 South St. Landry Ave.  
[mercymom3@gmail.com](mailto:mercymom3@gmail.com); [www.brgemandmineral.org](http://www.brgemandmineral.org)
- Aug 17-18 Bossier City, LA Ark-La-Tex Gem & Mineral Society  
Bossier Civic Center, 620 Benton Rd.  
[dglasner2001@yahoo.com](mailto:dglasner2001@yahoo.com); [larockclub.com](http://larockclub.com)
- Aug. 24-24 San Antonio, TX Southwest Gem and Mineral Society of San Antonio  
Wonderland of the Americans Mall  
I-10 and Loop 410 on Fredericksburg Road  
210-372-9722; [jspeck2@att.net](mailto:jspeck2@att.net)
- Oct 11-12 Mount Ida, AR Annual Championship Quartz Crystal Digging Contest  
Montgomery County Fairgrounds, Fairgrounds Rd.  
[director@mtidachamber.com](mailto:director@mtidachamber.com); [www.mtidachamber.com](http://www.mtidachamber.com)
- Oct. 12-13 Temple, TX Tri-City Gem and Mineral Society  
Frank W. Mayborn Civic and Convention Center  
3303 N. Third Street  
[lrolston@hotmail.com](mailto:lrolston@hotmail.com); <http://drarhie.wixsite.com/tcgme>
- Oct. 18-20 Austin, TX Austin Gem and Mineral Society  
Palmer Events Center, 900 Barton Springs Rd.  
[showchairman@austingemandmineral.org](mailto:showchairman@austingemandmineral.org); [www.agms-tx.org](http://www.agms-tx.org)
- Oct. 18-20 Lewiston, ID **NFMS** hosted by Hells Canyon Gem Club  
Nezperce County Fair Building, 1229 Burrell Avenue  
[hcgemclub@yahoo.com](mailto:hcgemclub@yahoo.com); <http://www.hellscanyongemclub.com/>
- Nov. 8-10 Humble, TX Houston Gem & Mineral Society  
Humble Civic Center, 8233 Will Clayton Pkwy  
5 miles east of Bush Intercontinental Airport  
1 mile east of Hwy. 59  
[HGMS.org](http://HGMS.org); [Showchair@hgms.org](mailto:Showchair@hgms.org)
- Nov. 23-24 Mesquite, TX Dallas Gem and Mineral Society  
Mesquite Rodeo Center Exhibition Hall, 1800 Rodeo Dr  
[lynncoouvillion@gmail.com](mailto:lynncoouvillion@gmail.com); [www.dallasgemandmineral.org](http://www.dallasgemandmineral.org)

## Show Time 2020

- Jan. 24-26 Tyler, TX The East Texas Gem & Mineral Society  
Tyler Rose Garden Center, 420 South Rose Park Dr.  
Margaret Kilanski—[mkilanski@yahoo.com](mailto:mkilanski@yahoo.com)
- Oct. 10-11 Temple, TX **SCFMS** hosted by Tri-City Gem & Mineral Society  
Mayborn Civic and Convention Center, 3303 N. 3rd St.  
David Farhie 512-826-2754, [dfarhie@gmail.com](mailto:dfarhie@gmail.com)

2019		August				2019
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 <b>NO</b> Archaeology Section Meeting	2	3 10-4 Shop Open 10-Noon Youth Section
4 10-4 Shop Open	5	6 11-3 Shop Open 7:30 Board Meeting	7 10-3 Shop Open 1-3 p.m. Day Light	8 10-3 Shop Open	9	10 10-4 Shop Open
11 10-4 Shop Open	12	13 11-3 Shop Open	14 10-3 Shop Open 6:30 p.m. Gemstone & Faceting Section	15 10-3 Shop Open	16	17 10-4 Shop Open 10-Noon Youth Section 1:30 Beading Section
18 10-4 Shop Open	19 7:30 Lapidary Section	20 11-3 Shop Open 7:30 Paleo Section	21 10-3 Shop Open 7:30 Mineral Section	22 10-3 Shop Open	23	24 10-4 Shop Open
25 10-4 Shop Open	26	27 11-3 Shop Open 7:30 General Meeting	28 10-3 Shop Open	29 10-3 Shop Open	30	31 10-4 Shop Open

2019		September				2019
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2 <b>LABOR</b> <b>DAY</b>	3 11-3 Shop Open 7:30 Board Meeting	4 10-3 Shop Open 1-3 p.m. Day Light	5 7:30 Archaeology Section Meeting	6	7 10-4 Shop Open 10-Noon Youth Section
8 10-4 Shop Open	9	10 11-3 Shop Open 7:30 Board Meeting	11 10-3 Shop Open 6:30 p.m. Gemstone & Faceting Section	12 10-3 Shop Open	13	14 10-4 Shop Open
15 10-4 Shop Open	16 7:30 Lapidary Section	17 11-3 Shop Open 7:30 Paleo Section	18 10-3 Shop Open 7:30 Mineral Section	19 10-3 Shop Open	20	21 10-4 Shop Open 10-Noon Youth Section 1:30 Beading Section
22 10-4 Shop Open 10-4 Shop Open 29	23 <b>First</b> <b>Day of</b> <b>Autumn</b> 30	24 11-3 Shop Open 7:30 General Meeting	25 10-3 Shop Open	26 10-3 Shop Open	27	28 10-4 Shop Open

# The BACKBENDER'S GAZETTE

The Newsletter of the  
**Houston Gem & Mineral Society**

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



## SCFMS

1998 - 1st (Large)  
2000 - 1st (Large)  
2003 - 1st (Large)  
2005 - 1st (Large)  
2006-2016- 1st (Large)  
2017—1st (Large)  
2018—1st Large  
2019—1st Large



## AFMS

1998 - 2nd (Large)  
2003 - 3rd (Large)  
2007 - 1st (Large)  
2010 - 2nd (Large)  
2012 - 3rd (Large)  
2013 - 3rd (Large)  
2014 - 2nd (Large)  
2017—3rd (Large)  
2019—2nd (Large)

**DATED MATERIAL—PLEASE DO NOT DELAY !**

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