

ON THE COVER

BIRTHSTONES FOR NOVEMBER AND DECEMBER

The birthstone for November is Topaz (yellow or golden variety). The birthstones for December are Turquoise, Tanzanite, and Zircon.

Shown from left to right, Tanzanite faceted and rough. Topaz rough, crystal point, and faceted. Far right top, Zircon rough and faceted. Center plate other stones are sitting on, oval brooch, and bottom right cabochons are Turquoise.

Stone photos from The Smithsonian Institute Collection and MINDAT.ORG. Graphic composition by Susan Burch.

Why are there birthstones?

Scholars trace the origin of birthstones back to the Breastplate of Aaron, as described in the Book of Exodus in the Bible. The Breastplate boasted 12 unique gemstones that represented the 12 tribes of Israel.

What is the point of birthstones and who decides what they are?

Birthstones are a part of modern society and since ancient times it is widely believed that wearing your birthstone is a symbol of wellness.

In 1912, the National Association of Jewelers (Jewelers of America) defined the modern list of birthstones. Since then, in 2002, an announcement came out by the American Gem Trade that tanzanite was added as a birthstone for December.

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SOUTH CENTRAL FEDERATION OF MINERAL SOCIETIES, INC.

2022 SCFMS OFFICERS

President: Roger Burford

Executive V-P: Don Shurtz

Secretary: Liz Burford

Treasurer: Henry Rojas

Web Master: Don Shurtz

Exec. Secretary: Kimberly Brannon

AFMS Endowment Fund Raffle: (temporary) Jerrold Simpson

SCFMS Endowment Fund Com. Treasurer: Empty

Nominating Committee – Ron Carmen

Past President: Jerrold Simpson

For more information or to send information to the SCFMS or an officer, please email:

scfmsinformation at gmail.com



PURPOSE

*To promote popular interest and education in the various earth sciences, in particular those hobbies dealing with the art of lapidaries and the science of minerals, fossils, as well as their associated fields.

*To cooperate with educational and scientific institutions or other groups engaged in increasing knowledge in the earth sciences.

*To cooperate with or become members of similar Federations in the United States and elsewhere.

*To assist in the formation of earth sciences societies in localities where public interest justifies their formation.

E-MAIL ADDRESS CORRECTION AND CHANGES

It is each members responsibility to send your email address corrections to the SCFMS Editor:

Susan Burch, scfmseditor at yahoo.com

NEWSLETTER PUBLISHED BIMONTHLY

DUPLICATION

In most instances material in this newsletter may be duplicated for non-commercial purposes providing full credit is given. There are exceptions, please do not assume permissions. For Commercial use, the individual author(s) must be contacted for their approval.

A NOTE FROM
—THE EDITOR—

THE FINAL DEADLINE, ETC.



For each newsletter the deadline is the 20th of the month prior to scheduled publication. February-April-June-August-October-December all provide the deadline for the following bi-monthly issue. Although, the Editor may chose to adjust the deadline due to circumstances.

As a reminder! Shop hints and tips that are used in this newsletter have not been evaluated for safety or reliability by myself. Please use caution and safety when trying out any new idea. Please, if you have something urgent give me a call, but send newsletter content via email.

ANNUAL SHOW 2023

TBD

ANNUAL MEETING

TBD

SCFMS WEB-SITE: WWW.SCFMS.NET

The SCFMS is a member of the American Federation of Mineral Societies. amfed.org

NEWSLETTER EDITOR/BEAC:

Susan Burch scfmseditor@yahoo.com









Roger Burford SCFMS President

This past weekend we were **SUPPOSED** to hold the SCFMS Convention in Westwego Louisiana. I say **SUPPOSED** because this was the most upsetting and frankly embarrassing situation I have ever witnessed. Counting the AFMS President and a couple of other AFMS members who wanted to sit in there were only 12 people attending. This is a **disgrace!!**

As a president of a club or a Regional VP you are required to attend the annual convention and if you are not able to attend you are to send a representative that you assign with the delegate form. We made a change a couple of years ago to pay the Regional VPs travel pay to attend and most clubs should also be paying something for the travel of their delegate. If you do not feel that you need to attend the convention then maybe you should not be the president of your club or your club should just disband and leave the Federation.

As you can tell I am very upset by this and it is going to require us to do another mail-in vote to approve all of the reports that were submitted and the budget for the coming year. An email will follow to allow for the voting and motions needed. Please take the time to go through the packet and budget documents and submit your votes to accept or object the contents and let's try to participate more this year. The next convention will again be put on by the Gem and Mineral Society of Louisiana and the show will be at the same place in Westwego, Louisiana so you have plenty of time to prepare, and at the next convention we will be electing a new slate of officers, I will be selecting members for the nominating committee in January so start thinking of who you think would make a good leader for your Federation.

ARTICLE III

MUTUAL RESPONSIBILITIES

- <u>Section 1.</u> It shall be the responsibility of each member society to send its President (who is a Federation Director) to the annual meeting.
- <u>Section 2.</u> If the member society's President cannot attend, a delegate shall be appointed, and an alternate may be chosen if the member society desires.
- Section 3. At least thirty (30) days prior to the convening date of the annual meeting, it shall be the responsibility of each member society to notify the Federation Secretary in writing of the names of its Director, Delegate, and/or Alternate who expects to attend the annual meeting.
- <u>Section 4.</u> Each member society represented at the annual meeting shall be entitled to one (1) vote.
- <u>Section 5</u>. No proxy or absentee vote shall be accepted at the annual meeting.
- <u>Section 6.</u> It shall be the duty of the Federation to maintain an active information service for its member societies.
- Section 7. It shall be the responsibility of each member society to furnish the Executive Secretary and Directory Chairman with a list of the names of its officers and their mailing addresses, email addresses, and phone numbers, together with meeting time and place. The member society shall correct this information within thirty (30) days of any change. This information is to be in the hands of the Executive Secretary and Directory Chairman by February 1.

South Central Federation of Mineral Societies Minutes of the 78 th Annual Convention Meeting Westwego, LA, October 15, 2022

Meeting was called to order by Roger Burford, SCFMS Executive President at 10:15 am. Roger welcomed our American Federation of Mineral Societies guests to the meeting (3). Pledge of Allegiance was led by Roger Burford. Invocation was led by Walt Beneze. Roger introduced Walt Beneze as Parliamentarian for this meeting. Welcome given by Chris Picou. He also said he would be happy to host the SCFMS Convention in 2023. Roger welcomed Matt Charsky, AFMS President.

Roll Call of Member Societies attending—Liz Burford ArkLa Tex GMS—Laura MacWilliams

Arlington GMS -

Austin GMS -

Baton Rouge GMS – (Jimmy Lapham- Vice President)

Big Spring Prospector Club -

Central Texas GMS -

Chihuahuan Desert GMS –

Clear Lake GMS -

Cowtown Gem, Mineral, & Glass Society -

Dallas Gem & Mineral Society -

DeRidder GMS -

East Texas GMS – Jerry Sudderth

Fort Worth GMS -

Fredericksburg GMS –

Gem, Mineral and Lapidary Society of Central Louisiana –

GMS of Louisiana – Chris Picou

Geological Society of San Antonio –

Golden Spread GMS -

Gulf Coast GMS -

Hi-Plains GMS -

Hot Springs Geology Club -

Houston GMS -

Lubbock GMS – Greg Roberts

Midland GMS -

Northeast Louisiana GMS -

Paleontological Society of Austin –

Pine Country GMS -

Pleasant Oaks GMC of Dallas - Don Shurtz

Rolling Rock Club – Walter Beneze

Southwest GMS -

Texoma Rockhounds Inc -

Tri-City GMS -

Victoria GMS -

Waco GMS -

Williamson County GMS – Jo Ann Tooley

Wise County Fossil, Rock, and Mineral Society -

President –Roger Burford

Executive Vice President, Budget Committee, Scholarship, AFMS Scholarship, Webmaster, Web Site Competition – Don Shurtz

Secretary, Audit Committee Member- Liz Burford

Treasurer -

District I -

District II –

District III – District IV –

District V –

District VI –

District VII –

District VII -

District VIII -

Directory, Show Coordinator –

Endowment Fund – Walt Beneze

Endowment Fund Treasurer –

Newsletter Editor, BEAC –

Uniform Rules-

Nominating Committee – (inactive 2022)

Past President, Long Range Planning –

BUSINESS MEETING

We did not have enough people present to have a quorum for votes needed to pass the Budget or the reports in the packet. It was decided Budget for 2022-2023 would have to be emailed to be voted on as we did last year with the Officer election. The packet will also need to be emailed out for passage of each report.

Things that needed to be discussed are the approval of the Budget for the upcoming year, bids for locations for upcoming shows. Chris Picou has offered to host the convention again next year. We have no conventions scheduled after that. Next meeting will be Officers Vote so we will need members to serve on a nominating committee beginning in January. Roger reminded people to review Constitution & Bylaws to see progression for various positions.

Roger apologized to all who took the time to come in.

Don explained changes that were made on the Budget report and the Scholarship Fund. He also stated there is no reason not to have someone nominated for the Scholarship Honorees. Matt Charsky stated that this year AFMS reached the milestone of \$2 million dollars. Don also stated this needs to be completed by February. Jimmy Lapham asked if this would include Lapidary Artists. Don stated that one of the requirements is that they be a graduate in an Earth Science field.

Meeting was adjourned at 10:25 am.

Submitted by Liz Burford

THE AFMS AND SCFMS CONVENTION, A PERSPECTIVE

Don Shurtz, SCFMS Executive Vice President



The 2022 AFMS and SCFMS Conventions were held in Westwego, a New Orleans Suburb. The Convention schedule ran from Thursday, October 13 through Sunday, October 16. October 13th was primarily the day for the Uniform Rules Committee (those concerned with the judging of competitive display cases).

Friday, October 14th was the AFMS Executive Board meeting. The meeting was well attended with representatives from all of the Regional Federations and many of the committee chairs. The meeting was also broadcast as a Zoom meeting for those wanting to attend but not able to travel. The necessary business was transacted including passing a new budget and electing officers.

A little out of order, but Sunday, October 16, was the last day of the Convention. The Rollin' Rock Club held its yearly "official" meeting in the morning before the show opened. Later in the morning and running through mid-afternoon were the American Lands Access Association (ALAA) Presentation, Meetings, and Auction

Saturday was the busy day for the convention with the Editor and Webmaster Breakfast starting the day. Midmorning was the SCFMS Meeting, and the Awards Banquet was in the evening. At the Editor and Webmaster Breakfast, Susan Burch distributed the AFMS and SCFMS Editor and Author awards. I passed out the AFMS Website Contest Awards. I would have also passed out the SCFMS Website Contest Awards, but there were no entries. Without any Entries, it's hard to have Winners!

The Awards Banquet was well attended and was a good time. There was some great food. For the SCFMS, we got to see a short video produced by Dr. George Maxey, the SCFMS Scholarship Honoree. Dr. Maxey was unable to attend the Banquet, but his video explained the circumstance that led to his selection as the Honoree – an interesting story about a fulgurite in Denton, TX. He also described the work of the two Scholarship winners, Savannah Thomas from UNT and Jordan K. Wright from SMU.

Now on to **THE JOKE**, or more properly, **THE EMBARRASSMENT – THE SCFMS DELEGATE MEET-ING**. The SCFMS President, Executive Vice President, and Secretary were present. No Regional Vice Presidents were present, and only a few clubs (less than 4) were represented by delegates. **There were more AFMS representatives than SCFMS representatives in the room!** We did not have a quorum; we were unable to conduct any business. The election of officers was not an issue as the current officers are just completing the first year of a two-year term. However, we were unable to pass a budget. We were also unable to approve or disapprove of the actions (reports) of the SCFMS Committees. The committee approval votes and the budget will now have to be voted on by mail and/or email. This is the second year in a row that we have not had a quorum at our meeting. What is going on? Do the clubs not want a Federation? Do the clubs not want the protection offered by Liability Insurance the Federation procures to cover Federation and Club Activities? Do the clubs not want the Display Case competition, the newsletter and website contests, and the information in the Federation Newsletter and the Federation Website? Do the clubs not want to participate in the AMFS Scholarship Foundation which gives two \$4,000 scholarships in the SCFMS region. If that is the case, then let's dissolve the Federation. I am sure the Rocky Mountain Federation, the Southern Federation, or the Midwest Federation would be willing to accept the clubs that do want to continue.

It is time to wake up and PARTICIPATE, or maybe it is just time to quit.

NOTE FROM THE SECRETARY Liz Burford, SCFMS Secretary

Due to the low turnout at the meeting in October, I will be mailing out the packet with a voting form to each of the Directors of the Society. Separately, I will be sending out the Budget proposal for the upcoming year with a voting form. Please make sure we have the most up to date information of the officers of your society. Below is the definition in our Constitution of who is classified as a Director:

BOARD OF DIRECTORS ARTICLE VI

The Board of Directors of this Federation shall be the President, Executive Vice President, eight District Vice Presidents, the Secretary, the Treasurer, and the current Presidents of each member society.



Liz Burford

Each director MUST return it with your vote and any comments you might want to add. As **SCFMS Secretary** a person holding one of these positions, it is your responsibility to complete this annual task. We, as a Federation, do not ask for much but what we do ask for is for you to be aware of your responsibilities when taking on this role and ONE day a year (not even a full day at that). As stated in the Bylaws:

ARTICLE III MUTUAL RESPONSIBILITIES

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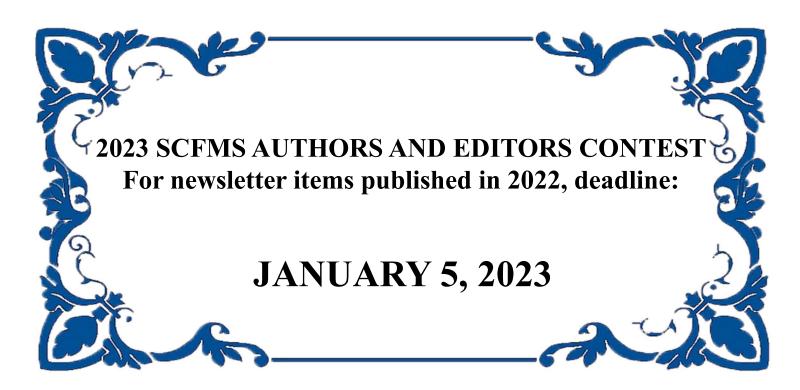
AFMS SCHOLARSHIP FOUNDATION Don Shurtz, SCFMS Executive VP

This article may sound redundant as it is the same thoughts I was trying to convey in the message that was published in the September / October SCFMS Newsletter. In addition to explaining what the American Federation Scholarship is all about, I will tell you who were the 2022 SCFMS Honoree and scholarship winners in 2022, and then kick off an accelerated schedule for 2023.

The American Federation of Mineralogical Societies (AFMS) Scholarship Foundation, more commonly known as the AFMS Scholarship Fund, exists to serve the Regional Federations, including the South Central Federation of Mineral Societies (SCFMS). The AFMS Scholarship Foundation provides two \$4,000.00 scholarships to each Regional Federation (except the Southeast Federation of Mineralogical Societies which has its own scholarship program). The scholarships can go to virtually any student working on a Master's or Doctorate degree in an earth science field. There are a couple of restrictions for the winning students. U.S. citizenship and working on a Master's or Doctoral degree in the field of Earth Science are the primary restriction. As the SCFMS, we must name a Scholarship Honoree who will pick the winning students (or contact a professor at his school or schools of choice to make the selection). Those picked as the Honoree really are honored and willing to find the ultimate scholarship winners.

For 2022 we selected Dr. George Maxey, a retired professor from UNT and a lecturer at SMU. He now works part-time at the National Parks College in Hot Springs, Arkansas. Dr. Maxey was nominated by the Hot Springs Geology Club. As it was summer-time when he was looking for students to receive the scholarship, it was difficult to contact professors, students, and university staff as they were all on their summer break. However, he ultimately received seven nominations for the scholarships and picked two, Savannah Thomas, a student at North Texas University (NTU) working towards her master's degree in Environmental Science, and Jordan Wright, a student at Southern Methodist University (SMU) working for his doctorate in Geology.

Now it is time to work on the 2023 Scholarship Honoree. As I have said before, surely someone in each club can think of someone to be the Honoree. If the Honoree is not associated with a University, then the Honoree can choose a professor or professors of his choice to assist in picking the students. The SCFMS does not want to pass on having two scholarships of \$4,000.00 each awarded to schools in our area. Please give it a thought at your next society board meeting or society general meeting. I would like to pick the Honoree in the February timeframe so that the students can be chosen while classes are ongoing. A \$4,000.00 scholarship may allow a student to continue his/her education. To nominate someone for the Scholarship Honoree, please forward a short bio of the nominee and the reason he/she should be chosen. The nomination should be forwarded to me at don.shurtz at gmail.com.



Photos from the 2022 SCFMS Annual Convention Banquet

Shown at right—Chris Picou, GMSLA President (host club) on left in picture; Roger SCFMS President on right.





Shown at left— Matt Charsky swearing in Roger as 2023 AFMS President-Elect.

Below—2023 AFMS officers.

Listed left to right:

1-Jim Brace-Thompson (CFMS-5th VP)

2-Cheryl Neary (AFMS President 2022)

3-Roger Burford (AFMS President-elect)

4- JC Moore

5-Doug True (Multi-position holder)

6-Liz Thomas (RMFMS, 4th VP)

7-Pat LaRue (Treasurer)

8-Donna Moore (Secretary).

Photos on this page provided by Liz Burford



2022 SCFNS Editors & Authors Contest Winners

PLACE EDITOR NAME OF BULLETIN CLUB AFFILIATION MONTH 1 Sigrid Stewart Backbender's Gazette Houston Gem & Mineral Society 21-Dec 2 Sarah Hawthorne and Julia Toombs Rock N Rose East Texas Gem & Mineral Society 21-Apr CATEGORY: MINI BULLETINS PLACE EDITOR NAME OF BULLETIN CLUB AFFILIATION MONTH 1 Don Shurtz Chips and Chatter Pleasant Oaks Gem and Mineral Club of Dallas 21-Oct CATEGORY: LARGE BULLETINS PLACE EDITOR NAME OF BULLETIN CLUB AFFILIATION MONTH 1 Raymond Lynch The Hot Springs Bulletin "The Hot Springs Geology Club 21-Jan CATEGORY: SPECIAL PUBLICATIONS CATEGORY: SPECIAL PUBLICATIONS CATEGORY: SPECIAL PUBLICATION CLUB AFFILIATION MONTH 1 Julia Toombs Welcome Packet East Texas Gem & Mineral Society 21-Dec <td c<="" th=""><th></th><th>CATEGORY:</th><th>NEW EDITOR</th><th></th><th></th></td>	<th></th> <th>CATEGORY:</th> <th>NEW EDITOR</th> <th></th> <th></th>		CATEGORY:	NEW EDITOR		
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6 Sigrid Stewart President's Message Houston Gem & Mineral Society 21-May 7 Cheryl Ogletree Presentation Review: Devil's Tower Pleasant Oaks Gem and Mineral Club of Dallas 21-Feb 8 Kerry Cartier Tell the Rock's Story East Texas Gem & Mineral Society 21-Nov CATEGORY: DRAWN FEATURES PLACE AUTHOR NAME OF FEATURE CLUB AFFILIATION MONTH	4	Julia Toombs	Tyler Gem & Mineral Show	East Texas Gem & Mineral Society	21-Jun	
7 Cheryl Ogletree Presentation Review: Devil's Tower Pleasant Oaks Gem and Mineral Club of Dallas 21-Feb 8 Kerry Cartier Tell the Rock's Story East Texas Gem & Mineral Society 21-Nov CATEGORY: DRAWN FEATURES PLACE AUTHOR NAME OF FEATURE CLUB AFFILIATION MONTH	5	Margaret Kilanski	July 4th at Lindsey Park	East Texas Gem & Mineral Society	21-Jul	
8 Kerry Cartier Tell the Rock's Story East Texas Gem & Mineral Society 21-Nov CATEGORY: DRAWN FEATURES PLACE AUTHOR NAME OF FEATURE CLUB AFFILIATION MONTH	6	Sigrid Stewart	President's Message	Houston Gem & Mineral Society	21-May	
CATEGORY: DRAWN FEATURES PLACE AUTHOR NAME OF FEATURE CLUB AFFILIATION MONTH	7	Cheryl Ogletree	Presentation Review: Devil's Tower	Pleasant Oaks Gem and Mineral Club of Dallas	21-Feb	
PLACE AUTHOR NAME OF FEATURE CLUB AFFILIATION MONTH	8	Kerry Cartier	Tell the Rock's Story	East Texas Gem & Mineral Society	21-Nov	
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	CATEGORY:	ORIGINAL ADULT ARTICLE		
PLACE	NAME OF ARTICLE		CLUB AFFILIATION	MONTH
1	Terry Roberts	Rock Hunting on the Kokeot 06 Ranch-A Rockhound's Dream	East Texas Gem & Mineral Society	21-Apr
2	Colleen Hayes	Trilobite Hunting	East Texas Gem & Mineral Society	21-Sep
3	Sigrid Stewart	Crystal Love	Houston Gem & Mineral Society	21-Nov
4	Don Shurtz	Gold, Gold, Gold	Pleasant Oaks Gem and Mineral Club of Dallas	21-May
5	Charles Creekmur	Minerals of New Mexico	East Texas Gem & Mineral Society	21-Jan
6	Neal Immega	Windows as Display Cases	y Cases Houston Gem & Mineral Society	
7	Phyllis George	More Than One Way to Rockhound	Houston Gem & Mineral Society	21-Jun
8	Stephen Blyskal	Using a Water Gun	Using a Water Gun Houston Gem & Mineral Society	
	CATEGORY:	ORIGINAL ADULT ARTICLE- ADVANCED		
PLACE		NAME OF ARTICLE	CLUB AFFILIATION	MONTH
1	Stephen Blyskal	School Collections	Houston Gem & Mineral Society	21-Feb
2	J. Michael Howard	Two New Minerals to Science, Named for Arkansas Geologist	The Hot Springs Geology Club	21-Mar
3	Neal Immega	Jewelry Repair with a TIG Welder	Houston Gem & Mineral Society	21-Apr

2022 AFMS BULLETIN EDITOR'S CONTEST

Award	New Editors - Bulletin	Issue	Club	Editor	Federa- tion
1st	Rockhound Rambling	Septem- ber	Ventura Gem & Mineral Society	Celia Churchill	CFMS
2nd	Cobb-L-Stones	Septem- ber	Cobb County Gem & Mineral Society	Amanda Rollason	SFMS
3rd	Backbender's Gazette	Novem- ber	Houston Gem & Mineral Society	Sigrid Stewart	SCFMS
4th	Summit Lapidary Club's Newslet- ter	June	Summit Lapidary Club	Mary Myers	MWF
5th	Rock-N-Rose	April	East Texas Gem & Mineral Society	Sarah Hawthorne & Julia Toombs	SCFMS
Award	Mini Bulletins - Bulletin	Issue	Club	Editor	Federa- tion
1st	Chips and Chatter	August	Pleasant Oaks Gem & Min- eral Club of Dallas	Don Shurtz	SCFMS
2nd	The Ammonite	October	Western Dakota Gem & Mineral Society	Deborah Vick	RMFMS
Award	Small Bulletins - Bulletin	Issue	Club	Editor	Federa- tion
1st	The Hound's Howl	March	The Aiken Gem, Mineral & Fossil Society	Barbara Fenster- macher	SFMS
2nd	The Quarry	March	Cincinnati Mineral Society	Jim & Judy Budnik	MWF
3rd	The Post Rock	Decem- ber	McPherson Gem & Mineral Club	Sara Murphy	RMFMS
4th	The Collecting Bag	October	Richmond Gem & Mineral Society	Barbara Hadley	EFMLS
5th	The Bulletin of the NYMC	April	The New York Mineralogical Club	Diane Beckman	EFMLS
6th	The Pick and Dop Stick	March	Chicago Rocks and Minerals Society	Rachele L. Best	MWF

Award	Large Bulletins - Bulletin	Issue		Club	Editor	Federa- tion
1st	The Rock Bag OGMS Bulletin	December		Oxnard Gem & Mineral So- ciety	Laura Driskel	CFMS
2nd	CSMS Pick & Pack	November		Colorado Springs Miner- alogical Society	John Emery	RMFMS
3rd	Rock Buster News	February		Central Pennsylvania Rock & Mineral Club	Brittany Martin	EFMLS
4th	The Hot Springs Bulletin	October		The Hot Springs Geology Club	Raymond Lynch	SCFMS
5th	The CMS Tumbler	October		Cascade Mineralogical Society	Keith Morgan	NFMS
6th	Rockenteur	August		Santa Lucia Rockhounds	Amy Phillips	CFMS
7th	Rocky Echoes	January		Mississippi Gem & Mineral Society	Rosina Echols	SFMS
8th	Burlington Gem & Mineral Club Newsletter	Nov/Dec		Burlington Gem & Mineral Club	Alice Wack	EFMLS
9th	The Mountain Gem	September		Franklin Gem & Mineral Society	Stacy Walbridge	SFMS
10th	Breccia	September		Santa Clara Valley Gem & Mineral Society	Josephine Borucki	CFMS
НМ	Flatirions Faceter	Sept/Oct		Flatirons Mineral Club	Dennis Gertenbach	RMFMS
НМ	Jade State News	June		Wyoming State Mineral & Gem Society	Ilene Olson	RMFMS
Award	Adult Articles - Title	Issue	Author	Club	Editor	Federa- tion
1st	"Vermont Rocks!"	Nov/Dec	Alice Wack	Burlington Gem & Mineral Club	Alice Wack	EFMLS
2nd	"Fossil Hunting"	October	Ted Gray	Santa Lucia Rockhounds	Amy Phillips	CFMS
3rd	"Rock Hunting on the Kokernot 06 Ranch - A Rockhound's	April	Terry Rob- erts	East Texas Gem & Mineral Society	Sarah Hawthorne & Julia Toombs	SCFMS
4th	"Safety is No Accident"	December	Ilene Olson	Wyoming State Mineral & Gem Society	Ilene Olson	RMFMS
5th	"Cool Cobbles from North Georgia Streams"	January	Tom Faller	Georgia Mineral Society	Robert Jarrett	SFMS
6th	"Faceting: Gem Examples"	March	Les Flynn	Reno Gem & Mineral Society	Sue Webb	CFMS
7th	"The Glacial Grooves of Kelleys Island"	November	Susan Satch- will	Three Rivers Gem & Mineral Society	Michele Yamanaka	MWF
8th	"It's a Sticky Situation"	April	Daniel Hogan	Three Rivers Gem & Mineral Society	Michele Yamanaka	MWF
9th	"Glauberite - Most Known by its Pseudomorphs"	August	Harlin Unruh	McPherson Gem & Mineral Club	Sara Murphy	RMFMS
10th	"Tourmaline: A Multicolored Gem with a Complex Chemical Composition"	March	Nick Smith	Three Rivers Gem & Mineral Society	Michele Yamanaka	MWF
НМ	"August Field Trip Report - Graptolites"	October	Lori Carter	Georgia Mineral Society	Robert Jarrett	SFMS
нм нм		October December	Lori Carter Judy Beck	Georgia Mineral Society McPherson Gem & Mineral Club	Robert Jarrett Sara Murphy	
	Graptolites" "Chlorastrolite - Michigan's			McPherson Gem & Mineral		
НМ	Graptolites" "Chlorastrolite - Michigan's Gemstone" "Late Triassic in the United Kingdom" "Carats, Carets, Karats, Car-	December	Judy Beck Kevin Der-	McPherson Gem & Mineral Club Central Pennsylvania Rock & Mineral Club Santa Clara Valley Gem &	Sara Murphy	RMFMS
НМ	Graptolites" "Chlorastrolite - Michigan's Gemstone" "Late Triassic in the United Kingdom"	December April	Judy Beck Kevin Der- mody	McPherson Gem & Mineral Club Central Pennsylvania Rock & Mineral Club	Sara Murphy Brittany Martin	RMFMS EFMLS
HM HM HM	Graptolites" "Chlorastrolite - Michigan's Gemstone" "Late Triassic in the United Kingdom" "Carats, Carets, Karats, Carrots Oh, My!"	December April March	Judy Beck Kevin Der- mody Pat Speece Clarice	McPherson Gem & Mineral Club Central Pennsylvania Rock & Mineral Club Santa Clara Valley Gem & Mineral Society North Mississippi Gem &	Sara Murphy Brittany Martin Josephine Borucki	RMFMS EFMLS CFMS

Award	Adult Articles Advanced - Title & Author	Issue	Author	Club	Editor	Federa- tion
1st	"An Answer to the Pandemic Blues: A Road Trip to the Kansas Cretaceous Chalk Beds"	July	Mike Nelson	Colorado Springs Miner- alogical Society	John D. Emery	RMFMS
2nd	"Two New Minerals to Science, Named for Arkansas Geologists"	March	J. Michael Howard	The Hot Springs Geology Club	Raymond Lynch	SCFMS
3rd	"Walking Among Ghosts: Iron- ton, Colorado"	February	Steven Wade Veatch	Colorado Springs Miner- alogical Society	John D. Emery	RMFMS
4th	"Caliperite - A Newly Discovered Rock Occurrence"	May	David Springer	Ventura Gem & Mineral Society	Celia Churchill	CFMS
5th	"School Collections"	February	Stephen Blyskal	Houston Gem & Mineral Society	Sigrid Stewart	SCFMS
6th	"My Bathroom Rocks!"	April	Keith & Barba- ra Noyes	The New York Mineralogi- cal Club	Diane Beckman	EFMLS
7th	"Where in Colorado?"	Sept/Oct	Dennis Gerten- bach	Flatirons Mineral Club	Dennis Gertenbach	RMFMS
8th	"Collecting Jasper Cobbles at Punta Gorda"	January	Jim Brace- Thompson	Ventura Gem & Mineral Society	Celia Churchill	CFMS
Award	Adult Articles Advanced - Title & Author	Issue	Author	Club	Editor	Federa- tion
9th	"Cumengeite and Pseudoboleite"	October	Michael Pabst	Micromineralogists of the National Capital Area	Kathy Hrechka	EFMLS
10th	"Montana Sapphires"	Septem- ber	Lawrence (Larry) H. Skelton	Western Dakota Gem & Mineral Society	Deborah Vick	RMFMS
НМ	"Mineral or Mineraloid, What Is the Difference"	October	Nancy Roberts	North Mississippi Gem and Mineral Society	Nancy Roberts	SFMS
НМ	"Definition of the Month: Pre- served Pleistocene Cave Lion Cubs from the Siberian Arctic"	Septem- ber	Steve Mul- queen	Ventura Gem & Mineral Society	Celia Churchill	CFMS
НМ	"The Dead River of Illinois"	March	Rachele L. Best	Chicago Rocks and Min- erals Society	Rachele L. Best	MWF
НМ	"Preparing Your Fossil Speci- mens"	Мау	Jose Santama- ria	Georgia Mineral Society	Robert Jarrett	SFMS
Award	Junior Articles, Under 12 - Title and Author	Issue	Author	Club	Editor	Federa- tion
1st	"Valley of Fire: Spring Break Trip 2021"	April	Lucia Hetrick (11)	Ventura Gem & Mineral Society	Celia Churchill	CFMS
2nd	"Enameling and Why I Love It"	Novem- ber	Sophie Gunter (10)	North Mississippi Gem & Mineral Society	Nancy Roberts	SFMS
3rd	"Panum Crater: Step into a Young Volcano"	August	Valerie Church- ill (6)	Ventura Gem & Mineral Society	Celia Churchill	CFMS
4th	"Baculites"	Sept/Oct	Adler Casson	Flatirons Mineral Club	Dennis Gertenbach	RMFMS
5th	"My Trip to Aurora, North Caroli- na"	Septem- ber	Sydney Thornton (10)	North Mississippi Gem & Mineral Society	Nancy Roberts	SFMS
6th	"The Shah Diamond"	January	Amelia Rosholt (7)	Chicago Rocks & Minerals Society	Rachele L. Best	MWF
7th	"Trebloc Lime Mine Field Trip"	Novem- ber	Ellie Misulia (9)	North Mississippi Gem & Mineral Society	Nancy Roberts	SFMS
8th	"Emeralds"	Sept/Oct	Henry Poe (11)	Flatirons Mineral Club	Dennis Gertenbach	RMFMS

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Award	Junior Articles, 12-17 - Title and Author	Issue	Author	Club	Editor	Federa- tion
1st	"Anomalocaris"	March/Apr	Connel Casson (14)	Flatirons Mineral Club	Dennis Gertenbach	RMFMS
2nd	"Fluorite"	Sept/Oct	Charlotte Small (13)	Flatirons Mineral Club	Dennis Gertenbach	RMFMS
Award	Written Features - Title and Author	Issue	Author	Club	Editor	Federa- tion
1st	"I Have a Scratch and I Can't Itch It!"	September	Daniel Hogan	The Three Rivers Gem & Mineral Society	Michele Yamanaka	MWF
2nd	"Shop Time"	December	Terry Roberts	East Texas Gem & Miner- al Society	Sarah Hawthorne & Julia Toombs	SCFMS
3rd	"Crossword Puzzle - Geology Quiz"	November	John Emery	Colorado Springs Miner- alogical Society	John Emery	RMFMS
4th	"Hematite, Iron Mines, Rock Shops & Rainbows - A Rock- hounding Trip to Michigan"	September	Susan Satchwill	The Three Rivers Gem & Mineral Society	Michele Yamanaka	MWF
5th	"Becky Whisenant"	April	Becky Whisenant	East Texas Gem & Miner- al Society	Sarah Hawthorne & Julia Toombs	SCFMS
Award	Written Features - Title and Author	Issue	Author	Club	Editor	Federa- tion
6th	"A Rock Show (At Last!) and the Grandeur of Wyoming"	July/Aug	Steven Du- mortier	Show Me Rockhounds of Kansas City	Valerie J. Myers	MWF
7th	"Collecting at the Red Cloud Mines of Lincoln Co., NM"	February	Andy Thomp- son	Mineralogical Society of the District of Columbia	Ken Rock	EFMLS
8th	"Adventures in Flint-Knapping: Chapter 4, Point Styles and Time Periods, Part 3- Mississippian Period"	July	Terry Comfort	Mississippi Gem & Mineral Society	Rosina Echols	SFMS
9th	"Field Trip Reviews: Stepping Back in Time"	May/June	Nancy Roberts	North Mississippi Gem & Mineral Society	Nancy Roberts	SFMS
10th	"May 15, 2021 Meeting Program Review: 'Making Micromounts'"	December	Rebecca Vallar- ian	North Mississippi Gem & Mineral Society	Nancy Roberts	SFMS
НМ	"Graves Mountain, Georgia"	April	Charles Snider	The New York Mineralogi-	Diane Beckman	EFMLS
НМ	"Picturing the Past: The Golden Age of Field Trips (1956-1959)"	September	Jim Brace- Thompson	Ventura Gem & Mineral Society	Celia Churchill	CFMS
НМ	"Experiencing the East Coast Gem, Mineral & Fossil Show"	December	Ben Dolphin	The New York Mineralogi- cal Club	Diane Beckman	EFMLS
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НМ	"Fluorite: Mineral of the Month at the Western Museum of Min- ing and Industry"	October	Ben Elick	Colorado Springs Miner- alogical Society	John Emery	RMFMS
нм	at the Western Museum of Min-	October February	Ben Elick Joshua Hair		John Emery John Emery	RMFMS RMFMS

Award	Drawn Features - Title and Author	Issue	Author	Club	Editor	Federa- tion
1st	"The CMS Tumbler Cartoon"	June	Keith Morgan	Cascade Mineralogical Society	Keith Morgan	NFMS
2nd	"Odds & Ends - Tourmaline	Nov/Dec	Alice Wack	Burlington Gem & Mineral	Alice Wack	EFMLS
3rd	"Parts of a Trilobite"	Nov/Dec	Charlotte Small	Flatirons Mineral Club	Dennis Gertenbach	RMFMS
4th	"Word Fill Game - Birthstones"	August	Don Shurtz	Pleasant Oaks Gem and Mineral Club of Dallas	Don Shurtz	SCFMS
Award	Adult Poetry - Title and Author	Issue	Author	Club	Editor	Federa- tion
1st	"Rock Story"	December	Sigrid Stewart	Houston Gem & Mineral Society	Sigrid Stewart	SCFMS
2nd	"Brothers"	March	Steven Wade Veatch	Colorado Springs Miner- alogical Society	John Emery	RMFMS
3rd	"Rockhounds Must Be Tough"	September	Betsy Ober- heim	Central Pennsylvania Rock & Mineral Club	Brittany Martin	EFMLS
4th	"Stones for Christmas"	December	Carolyn Hiwe	Oxnard Gem & Mineral	Laura Driskell	CFMS
5th	"The River"	September	Barbara Braun	East Texas Gem & Mineral Society	Sarah Hawthorne & Julia Toombs	SCFMS
Award	Junior Poetry - Title and Author	Issue	Author	Club	Editor	Federa- tion
1st	"I Love Them All Big and Small!"	November	Lucia Hetrick (11)	Ventura Gem & Mineral Society	Celia Churchill	CFMS
2nd	"Tide is Low, Time to Go!"	November	Valerie Church- ill (6)	Ventura Gem & Mineral Society	Celia Churchill	CFMS
3rd	"The Best Part of Rockhound- ing"	October	Ellie Langille (11)	Ventura Gem & Mineral Society	Celia Churchill	CFMS
Award	Special Publications - Title & Author	Issue	Author	Club	Editor	Federa- tion
1st	"RGMS Fall Swap Flyer"	October	Barbara Hadley	Richmond Gem & Mineral Society	Barbara Hadley	EFMLS
2nd	"In Loving Memory of Betsy Martin"	September	Thomas Hale	Richmond Gem & Mineral Society	Barbara Hadley	EFMLS
3rd	"A Triassic Vertebrate Fauna" flyer	August	Barbara Hadley	Richmond Gem & Mineral Society	Barbara Hadley	EFMLS
4th	East Texas Gem & Mineral Society "Welcome Packet"	December	Julia Toombs	East Texas Gem & Miner- al Society	Sarah Hawthorne & Julia Toombs	SCFMS



JEOPARDY QUESTION by Ken Rock, MSDC Editor

ALL THAT GLITTERS
MAY BE IRON THIS,
ONCE USED TO
PRODUCE SPARKS
IN MUSKETS, BUT IT
WON'T FINANCE
YOUR RETIREMENT

Screenshot from a Recent Jeopardy Show

This question got my attention on a recent edition of Jeopardy. The reference to fool's gold that won't finance anyone's retirement is an attempt to help the players get the right answer – which someone did before I came up with mine.

It turns out that my response, disulfide, was NOT the answer Jeopardy was looking for. The correct Jeopardy response, in the form of a question, was "what is pyrite" (also known as iron disulfide, or FeS2). I was aware that flint was somehow used in a <u>firing mechanism</u> to generate a spark, but was not aware that pyrite had also been used to generate sparks.

The first self-igniting firearm action used a wheellock mechanism that depended on two elements:

- (1) a spring-activated, serrated wheel that revolves when the trigger is pulled, and
- (2) a piece of pyrite held in jaws that force it against the wheel.

When the wheel was spun against the pyrite, sparks were generated that ignited a small amount of gunpowder in the priming pan. The resultant "flash in the pan" was transferred through a small hole to the propulsion charge in the barrel, causing the gun to fire. A close modern analogy of the wheellock mechanism is the operation of a handheld lighter (e.g., "BIC") where a toothed steel wheel is spun in contact with a piece of sparking material to ignite the liquid or gaseous fuel.



Wheellock Musket—Photo from Buffalo Bill Center of the West

The wheellock was developed in Europe around 1500. It was used alongside the matchlock and was later superseded by the <u>snaplock</u> (1540s), the <u>snaphance</u> (1560s) and the <u>flintlock</u> (c. 1610s).

Pyrite History

Research shows that Neanderthals were able to start fires using stone tools. <u>The findings</u>, published in the journal *Scientific Reports*, present the first evidence (based on actual stone artifacts) of systematic fire production by our extinct close relatives.

Evidence from the Middle Paleolithic, which spans 300,000 to 50,000 years ago, shows that Neanderthals regularly used fire. However, it was unclear whether they collected natural fire or produced it themselves. There also is ample evidence suggesting that humans used pyrite to strike flint. Indeed, flint tools that likely were used for this purpose have been found at numerous *Homo sapiens* archaeological sites throughout Eurasia.

The familiar fire-starting method of producing a shower of sparks over tinder by striking steel against flint originated much later in time, during the Iron Age (~1200 BC to 600 BC) that followed the Stone Age and Bronze Age. However, no dedicated fire-making tools have been found at Neanderthal sites. Any flint tools that have been found appear to have been used for other things, such as animal butchering.

Later Uses of Pyrite

Pyrite was important in the production of sulfur and sulfuric acid, especially during the World War II era. Long before this use though, pyrite was valued by some Native American peoples as a healing stone. During the Victorian Age, pyrite was a favorite stone for creating carved rosettes, shoe buckles, rings and other decorative elements.

Pyrite Properties

Pyrite is the most common sulfide mineral and forms in many geologic environments, all over the world, and many pyrite deposits also contain small amounts of other minerals such as cobalt, nickel, silver and gold. Pyrite crystallography is particularly fascinating, with crystals forming nearly perfect cubes, octahedrons, pyritohedrons (12-sided crystals with pentagon-shaped faces), and a variety of crystal shapes that are combinations of those forms. In fact, pyrite has its own display case in the Geology, Gems & Mineral Hall of the Smithsonian's Natural History Museum that focuses on its varied shapes.

Continued on page 17



Pyrite Display at the Smithsonian's Natural History Museum. Photo by Ken Rock.

Pyrite crystals sometime exhibit a form known as penetration twinning, where two or more crystals are intergrown. A classic locality for pyrite penetration twins is the remarkable deposit at La Rioja, Navajún, Spain.



Penetration Twinning in Pyrite Crystals from Navajún, La Rioja, Spain. Photo by Ken Rock.

The Incredible Pyrite of Navajún, Spain

Most mineral collectors can remember first looking at a pyrite from Navajún and thinking: "No way are those cubes natural." But we can rest assured that those beautiful cubic crystals are most definitely natural and can be found in several locations near Navajún, Spain.

I can recall seeing a room full of these amazing pyrites at the Tucson Gem & Mineral Show many years ago and being stunned by the beauty and variety of the specimens, almost all of which featured those lovely cubic crystals. I remain convinced that Navajún has got to be one of the most remarkable mineral occurrences known.

The host rock is marl, dating to the Creta-Period (from ceous ~145 to 66 million years ago). At the Victoria Mine there are major three zones where inclined Cretaceous marl containing the pyrite crystals outcrop at surface. The thickness of each of these strata varies, but averages about 8 feet. proximately 15%.



averages about 8 feet. Crystals from the Victoria Mine,
The average inclination Navajún, La Rioja, Spain—7.2
of the formation is apX 7.1cm. Photo by McDougall
Miner

For more about an amazing site visit to the pyrite mines of Navajún by Raymond McDougall, owner of McDougall Minerals, click HERE. Raymond was kind enough to allow use of information and photos from his wonderfully detailed trip report which includes information about the nearby towns, pyrite mineralogy, and current specimen mining operations.

Mineralogy

Pyrite from the Victoria Mine is often mirror-bright, sharp and perfect beyond compare. Although pyrite is too abundant and wonderfully varied to proclaim the "world's best pyrite," these are generally regarded as the world's best cubic crystals of pyrite. Crystals range in size from 1mm up to, rarely, about 20 cm. As is true throughout the world of minerals, the larger crystals typically are not as brilliantly lustrous and razor sharp as the smaller ones – although



Pyrite from the Victoria Mine, Navajún, La Rioja, Spain—4.5 X 4.3cm.

stunning, jaw-dropping large crystals have been found here. Although what we tend to see in museums, mineral shows, and photographs are typically the perfect sharp cubes with mirror luster, in fact the mode of occurrence and condition of Victoria Mine pyrites varies considerably. Some of the pyrite crystals can be quite distorted, and some show varying degrees of oxidation. Although most of the crystal forms found at the Victoria Mine (and at other nearby localities in this region) are cubic, pyritohedral (12 sided) crystals are also present at the locality. Cuboctahedral crystals (combination of square and triangular faces) also have been found, but are rare at the Victoria Mine.



Pyrite crystals at Level 2 of the Victoria Mine. Photo by McDougal Minerals

The pyrite crystals occur encased within a very thin soft coating. This coating protects the crystals and is likely one of the reasons we are able to enjoy such wonderfully preserved crystals, but on the other hand, it leads the crystals to want to detach from the matrix!



Pyrite crystals from 3cm in the wall on Level 1—note the thin white shell material in which the crystals are encased. Photo by McDougall Minerals.

The matrix itself is incredibly weak and friable, and water causes it to deteriorate – the only thing this stuff wants to do is crumble. (Important Note: NEVER clean a matrix pyrite specimen from Navajún in water – it will fall apart!) Because of the friable matrix, many joints between interlocking pyrite crystals have weakened, so that when you collect them, they most often detach and roll out of the rock as individual single crystals with points of contact where they were formerly attached to or interlocked with others. This is not always the case with tight groups or, for example, closely interlocked pairs, but overall it is incredibly common.

When the Final Jeopardy Category is "Best of the Best"

As you can probably tell, pyrite is one of my favorite minerals and the pyrites of Navajún are especially near and dear to my heart. Be sure to check out these remarkable specimens in person on your next visit to the Smithsonian. And when the Final Jeopardy answer is revealed stating "This location in Europe produces the best cubic pyrite specimens in the world," be ready with the question "What is La Rioja, Navajún, Spain."

Via Mineral Minutes-November 2022, shared with permission from Ken Rock.

PYRITE

If you've enjoyed reading about pyrite, then you might want to check out a few articles from Rock & Gem Magazine at these links:

What are Pyritized Seashells?



https://www.rockngem.com/what-are-pyritizedseashells/

Pyrite Suns & Coal Mining



https://www.rockngem.com/pyrite-suns-coal-mining/

Photos and links from Rock & Gem email.

DINOSAUR BONE CLOCK By Michael Bucco

I'll start with a little bit about myself, and the project. My name is Michael Bucco, I'm 33 years old and I've lived the majority of my life in the Grand Traverse Bay area of Michigan, think the pinky finger of the mitten. It's an area covered in Devonian coral fossils, about 390 million years old, you can't take a 5 minute walk without seeing at least one. I've always been intrigued by fossils and gemstones as long as I can remember, and got my start in the lapidary hobby by hand polishing local finds in my mid 20s. When I was 28, I took the leap and bought myself a 6 inch flat lap and began to teach myself how to cut cabochons. No formal training, just figuring it out, watching YouTube videos, and participating in lapidary groups on Facebook.

When I learned that dinosaur bone could, under the right circumstances, become agatized and cut into gemstones. Ι was hooked. It's been collection with wide variety being the bone.

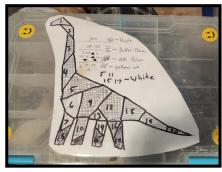


my favorite material Gemmy fossilized dinosaur bone to work ever since, or 'gembone' showing the dense and I've built a small outer layer with the highly a agatized trabeculae in the core of

gem dinosaur bone, or gembone. While collecting gembone, I've collected a fair amount that is "low quality" in the lapidary world, but I wanted to use it anyway.

I had seen some stone mosaics posted in lapidary groups, many taking thousands of hours and having hundreds of cabochons to make beautiful pictures.

These inspired me to try my hand at it, admittedly in an extremely simplified form for my first try. So, I went online and found a stained glass stencil and adjusted the shapes to something that I could cut with my flat lap.



Dinosaur stained glass pattern.

I then made a copy of the stencil, and began sorting through my slabs and choosing which colors to use where. I had a lot of blue tones, so that became the main color I used. I had some nice lavender colored bone that I used for the head, and a slightly nicer blue I used for the tail. thinking of lizards today, I decided

Continued on page 20

the belly and inside parts of the legs should be a separate color from the rest of the body, so I used an orange/brown color. Wanting the feet to also be their own color, I used a piece of bone that was not filled with agate, but calcite instead. This was a much softer mineral not suited for jewelry, but a good contrasting color for my project.

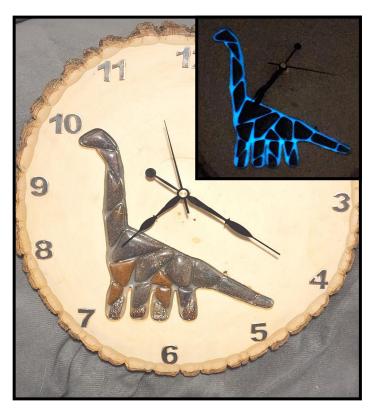
Once I had settled on the design, I cut the copy stencil into its individual pieces and epoxied them to their respective slabs. it took about 3 hours to cut them all out and grind them to their profile shapes once the epoxy cured. I then began cutting the trimmed pieces into cabochons. Starting with the head, I cut them one at a time, constantly checking them against the previous cab for size and shape. That process took around 12 more hours.



Above left, pattern pieces epoxied to the bone slab material. Above right, Trimmed bone pieces arranged as a 'dinosaur'. At right, finished gembone cabochons arranged as a 'dinosaur'.



After that I just had to assemble the display, which I decided would be a clock. The next step was to arrange the pieces on the wood with some poster tack, trace the shape of the dinosaur, with spacing to act as "grout" around the stones, and begin carving. My father has the tools and knowledge when it comes to wood work, so I went to his house and he allowed me to borrow his Dremel tool which I used similar to a router to carve out the dino to an even depth. after that is was just a matter of placing all 20 cabochons in their respective places and inlaying them with epoxy. I added some glow in the dark pigment for extra pizazz lol. The actual clock movement and hands are just a simple store bought kit, but I decide to hand cut the copper numbers, oxidize them, and then polish the edges.



Above, the finished clock. Inset, the glow-in-the-dark effect of the epoxy around the 'gembone' cabochons.

All together it took around 20 hours of work, and was likely the most fun I've ever had cutting cabochons. I've cut significantly nicer individual stones, but never multiple cabochons meant to be assembled into a bigger picture. And, making a dinosaur out of dinosaur bone just seemed perfect for me.

A little bit about dinosaur gembone:

The dinosaur bone you see in the lapidary world is the fossilized remains of what is called trabecular bone. The web like structure inside bone that holds the marrow and other soft tissue while the animal is living, is known as trabeculae. It is what causes the web like feature you see in gembone, and is the actual fossil in the gemstone. This process takes just the right circumstances, after the soft tissues rotted away, but before the bone itself did. The piece is generally buried by floods, landslides, etc, and ended up in a silica rich anaerobic environment, stopping the decomposition of the bone, and allowing the now hollow voids to fill with silica rich water. This eventually formed agate, jasper, and quartz.

This is best known to have happened in the Colorado plateau area of the Morrison formation. A geologic formation of upper Jurassic sedimentary rock around 155 million years old. Although, other areas produced bone filled and preserved in other minerals such as calcite, or in the Volga River area of Russia, iron pyrite!

Continued on page 21

At right, An array of gem bone cabs cut by Michael Bucca.
Below, A cab of AAA quality gembone set in a ring in the collection of

Michael Bucca.



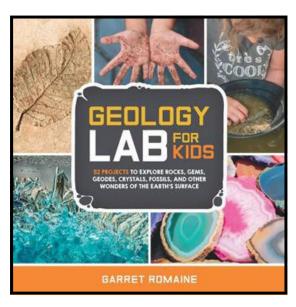
All the dinosaur bone I used in my clock, and the majority of what I've ever cut, came from the Colorado plateau in Utah, where most of the "newer" gembone finds seem to come from. When people first started collecting dinosaur bone for its gemstone qualities there were some absolutely phenomenal colors coming out on a regular basis, but as of 1978 it has been illegal to remove vertebrate fossils from public lands in the US without the expressed permission of the federal government. Seeing as how the majority of the formation that yields gemmy bone is BLM land, that is not the case anymore. Now it can only be collected from private property, usually ranches, and only with the permission of the land owner, which your unlikely to get unless you're already friends.



The AAA quality bone that does trade hands typically comes at quite the premium, a simple ring or pendant could easily set you back several hundred dollars. However, if you're like me and head over heels in love with this beautifully unique fossil gemstone, there are small communities of gembone enthusiasts that still have those mind blowing finds

from the early days, or the out of this world creations made from the best fossil gems in the world (my opinion).

Like any niche collecting hobby, coins, dolls, stamps, or gembone, it takes years of networking and building friendships to gain access to the best of the best, and even then, it doesn't come cheap! but for a lapidary enthusiast with a passion for fossils, or a fossil enthusiast that wants to add some color to their collection, its absolutely worth it. I hope to inspire someone out there to try making their own cabochon mosaic, or just introduce them to my favorite fossil and gemstone.



Reprinted with permission from Author, Garret Romaine.

Please, include the link below.

https://www.amazon.com/Garret-Romaine/e/B0037I87T8

This experiment shows how granite rises. When lava doesn't break through the Earth's surface, it cools slowly. We'll see how that intrusion gradually rises over time, like you would see in a lava lamp

MATERIALS

- 1-pint (473 ml) wide-mouth glass Mason jar (or a drinking glass will work)
- 1 cup (235 ml) of water, room temperature
- Food coloring (optional)
- 1/4 cup (60 ml) of inexpensive vegetable oil
- 1 teaspoon of salt (big, coarse rock salt works great)





Safety Tips

— Avoid getting salt into your eyes.— Don't knock over your jar.

PROTOCOL

STEP 1: Add 1 cup (235 ml) of water to your Mason iar

STEP 2: Add four or five drops of food coloring and stir it in. This is optional, but it helps you see what's going on.

STEP 3: Add the oil into the jar. As you probably know, oil floats on top of water.

STEP 4: Sprinkle the salt into your mixture. It should drop to the bottom.



Creative Enrichment

- 1. Can you guess how much salt you could add before the mixture becomes super-saturated? Think back to the Salty Squares lab.
- 2. Does it matter what kind of oil you use?





THE SCIENCE BEHIND THE FUN

This simple take on a "lava lamp" is a little different from the original. The original uses a heat source that melts wax, which rises, cools, falls, and recycles itself. Other forms of this experiment use a lot more oil and effervescent tablets, such as Alka Seltzer, instead of salt. But they work on the same principle. Remember the Divining Density lab you did earlier? You can probably guess that there is a difference between the specific density of water and the specific density of vegetable oil. Most cooking oils measure about 0.92 g/cm³. Pure water is defined as 1.0 g/cm³. Since lighter fluids float on heavier fluids, the oil floats on top.

As you added the salt, it captured some oil on its way through the oil layer. This is because the surface tension of oil is high, so it wants to coat things, which

you see as the mass drops through the oil. Once the salt reaches the bottom of the container, it starts to dissolve into the water, and as it dissolves, it releases the oil it captured. The oil then wants to rise above the water, and does so as an interesting bubble.

The difference in density is the same process that intrusions use to rise through the Earth's crust. They are just a little less dense than the material they are in, and hotter, so they rise slowly. Sometimes there may not be enough difference between the intrusion and the surrounding rock, so the hot magma eventually hardens in place, well below the surface. After a million years of erosion, or thanks to a continued push below, the granite eventually begins to poke out and form mountains.



ARE YOU A PHISHING TARGET By Susan Burch, SCFMS Editor

It has become common to hear of people who've fallen victim to one scheme or another. And no, it's not always older ones

who trip up. Although, it's easy to say, 'I would never fall for that', those who use these schemes are very good at disguising them as legitimate. Many times pretending to be a company you have dealings with or even one of your acquaintances or friends.

Whether it's a text sent to your phone, an email which slips through your spam filter, or some other avenue, it's not always easy to tell if it's real or a phishing scheme. These scammers launch thousands of phishing attacks like these every day and are constantly updating their methods. And, they're often successful.

One of the most recent, many AFMS, SCFMS and other club officers are receiving requests for members to buy gift cards or do some other favor involving money for another club member. It's believed the officers are targeted by a web crawler which harvests email addresses from federation and club related websites, newsletters and emails. It's strongly suggested to change the email address format of any posted on your club's website and in your club newsletter. Instead of the typical address, use the word at instead of the @ symbol and use spaces. Remove hyperlinks for email addresses as these web crawler algorithm can follow the hyperlink.

Federations, gem clubs, and the officers of these will NOT request you to purchase gift cards or ask you to send them money to do them a favor. If you receive a money request, please call the person the email seems to be from to double check if it's a legitimate request. Never click on a link asking you to confirm your account or to send money online. These are most likely phishing scams aimed at robbing you of your hard earned money or goods.

Please, be aware that these schemes are out there, keep yourself and your loved ones safe.

HAVE A GEM & MINERAL SHOW COMING UP?

If your club's gem & mineral show is held yearly, you are most likely aware that advertising your show is a vital aspect of drumming up attendance. This newsletter is shared with the editors of each of the other six AFMS federations along with the presidents and editors of each member club in our federation. These recipients are encouraged to share this show information with others whether that be in their newsletter or on their website. That is a LOT of free advertising! This newsletter comes out bi-monthly, please see page 3 to see when the deadline for the next newsletter is and don't hesitate to send me notification or even your show flyer. You just might make it into two issues.

Susan Burch, SCFMS Editor



BENCH TIPS BY BRAD SMITH

DIVIDERS—A set of dividers is a tool I find very useful in laying out the geometry of a piece I'm making. It has two needle-like tips with an adjustment to set the spacing between them.

They can be used to transfer a measurement. Let's say you need a 7mm wide strip of sheet metal. Set the spacing between the divider tips to 7 mm on the ruler. Then lay the sheet on the bench, put one tip against the edge, and run the dividers down the edge scribing a line parallel to the edge.



Dividers can be used to mark equal segments of a line or arc. For instance, assume a line between A and B that might be straight or curved, and you want to divide it into 5 equal lengths. Set the dividers to an estimate of the distance. Starting at Point A, use the dividers to mark off five lengths along the line. If you end up short of Point B, lengthen the distance on the dividers. If you end up overshooting Point B, shorten the length of your dividers. After a few tries, the length on the dividers will be the exact distance you need to mark the 5 segments.

Dividers can let you quickly find the center of a circular disk. With one tip of the dividers at the edge of the disk, set the other tip to an estimate of where the center might be. Fix one tip of the dividers at the 3 o'clock position and scribe an arc with the other tip near the center. Do this again from the 6 o'clock, 9 o'clock, and 12 o'clock positions. The arcs at the center will form a small four-sided box. The center of the box is at the center of the disk.

PRE-MADE BEZEL CUPS—As a general rule of thumb I assume it's going to take me 15 - 20 minutes to make a bezel for an ordinary cabochon, so for some projects buying pre-made cups can save a lot of time. But if you go this route, keep in mind three things. First, try to get cups made from fine silver, not sterling. Fine silver is softer and burnishes over the stone more easily.

BradSmithJewelry at gmail.com

Second, you may have trouble matching the shape and size of the stone with the shape and size of the bezel cup. Purchased cups can only be found in a limited number of standard sizes. You may have to adjust your choice of gemstone to match the cup. The other consideration is that pre-made cups often have fairly low side walls. While these are fine for



Brad Smith

low-dome stones, they're not dependable for stones with steep side walls.

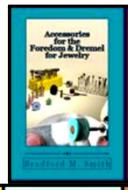
Lastly before setting, check the fit of your gemstone in the cup, particularly around the bottom. The bottom corners of a stamped cup are much more rounded than a bezel you would fabricate yourself. This causes a problem with stones that have a sharp edge around the bottom. Burnishing the bezel over one of these stones will place a lot of stress on the

stone and may cause it to crack. To avoid this, I round off the bottom edge of the stone with a diamond file (or use sandpaper on soft stones).



Please, check out more Smart Solutions for Your Jewelry Making Problems

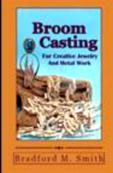
Amazon.com/author/bradfordsmith











UPCOMING SHOWS 2022/2023

NOVEMBER 2022

11-13, Humble, TX, Houston G&MS, Humble Civic Center, website: hgms.org

19-20, Mesquite, TX, Dallas G&MS, Mesquite Convention Center, website: dallasgemandmineral.org

DECEMBER 2022

2-4, El Paso, TX, El Paso M&GS, El Maida Temple, website: epmgs.com

JANUARY 2023

21-22, Fredericksburg, TX, Fredericksburg Rockhounds, Pioneer Pavilion, website Fredericksburgrockhounds.org

28-29, Tyler, TX, East Texas G&MS, Tyler Rose Garden Center, website: etgms.org

NOTICE: Due to Covid-19, please, be sure to double check to see if a club is still holding their events before attending.

Linda Simpson

To those who helped make this issue possible...



Roger Burford
Liz Burford
Don Shurtz
Linda Jaeger
Ken Rock
Michael Bucco
Garret Romaine
Brad Smith
Linda Simpson

Written/Photo Contributions Welcome!

SCFMS exists solely for the benefit of our member clubs and we are all volunteers. Please consider enriching our federation newsletter by making a written, drawn or even photo contribution to the newsletter about a geology or earth science related topic.

Pick a topic that interests you and give it a go. Please send it to Susan Burch, SCFMS Editor— scfmseditor at yahoo .com, who will work with you to finalize your item for this newsletter.