Rock Talk

May 2020

Rock Talk

In This Issue

The Cover Photo

Pyrite Sphere

Pyrite sphere from the Huaron region in Peru. £69.00 (about $85.00) 6.15 cm (2 ¼ inch) diameter.

President's Message

Judith Birx

I hope everyone is healthy and safe. I miss each and every one of you. We are canceling the Withlacoochee Rockhounds' monthly meeting and all the classes our club has to offer for the month of June. We will keep you apprised of all upcoming meetings and classes. Our state is starting to reopen, we are in phase one and we are not sure where we will be in July, so we will take it one step at a time.

I hope everyone got a chance to read the *May Rock Talk* it was great. Thank you Roberta, Lauren, Dorwin, Dave, Pat, Peg, Mike, and all of the contributors. Please keep sending photos and information to Mike Stone. There must be other activities, ideas, and skills that you would like to share with us.

Thanks and stay safe.

Christie's Auction House

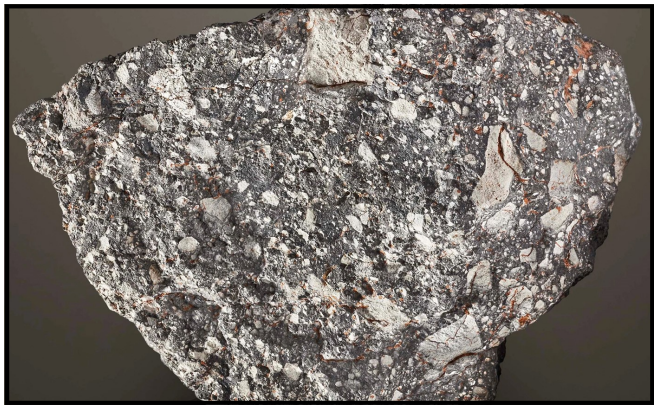
Offers 29-Pound Hunk of Moon for $2.5 Million

The hunk crash-landed in the Sahara Desert after a presumed collision chipped it off the lunar surface

From Smithsonian Magazine:https://apple.news/AztyMjK9zQv6BCbXhnl-GhQ
05/05/2020

Recently, Christie's auction house posted a tantalizing online offer that is, quite literally, out of this world: a 29-pound hunk of moon, up for sale for the price of $2.5 million.

The luxury lump of lunar rock, called NWA 12691, was found two years ago in the Sahara Desert, where it likely crash-landed during an ancient meteor shower.



Twenty nine pound moon rock.

Such objects are exceedingly rare: Over the years, humankind has scrounged together less than 1,500 pounds of lunar meteorites—just enough to fit inside a small car. NWA 12691 makes up about two percent of that meteoric mass, and is the fifth largest piece of the moon on our planet, dwarfing even those returned by the Apollo missions. According to BBC News,

Continued on next page

The June Club Meeting Has Been Cancelled

Moon Rock from previous page

NWA 12691 is about the size of a football or a human head.

"It is an order of magnitude larger than any other lunar meteorite we've sold," said James Hyslop, the head of Science & Natural History for Christie's. "All previous examples would have been able to fit in your hand, but this is over 10 times larger."

By studying the physical features and chemical characteristics of moon rocks, scientists can sometimes get a rough sense where on the lunar surface they originated, though many details of the origin story of NWA 12691 remain mysterious. Its trajectory likely follows those of other lunar meteorites, which are bits of debris chipped off the lunar surface during asteroid or comet collisions. Objects in space pummel the moon more often than they do Earth because our satellite has only a tenuous atmosphere that is ill-equipped to deflect and burn up the interlopers before they finish their descent. Also the Earth acts like a huge gravitational magnet that pulls meteors toward us, and often the moon is impacted by those Earthbound meteors.

According to Christie's, this particular specimen was probably born out of a particularly stunning smash up that sent many meteors Earthward. To date, about 30 meteorites from that event have been unearthed in Northwest Africa.

Offered through a private sale, rather than auction, NWA 12691 became available for purchase immediately. For those wishing to make a slightly more modest purchase, Christie's also offered thirteen iron meteorites for about $1.74 million

Lemon Chrysoprase

This is a slab of lemon chrysoprase that I got from a vendor at the Rock Swap in Live Oak early March. I set up with our club president Judith Birx.

Lemon Chrysoprase is a name given to Nickeloan Magnesite, which is a nickel rich variety of Magnesite. Magnesite is a magnesium carbonate mineral. Lemon Chrysoprase is also known as Citron Chrysoprase, and is often tumble polished, yet resembles unglazed porcelain.

Roberta Oldread

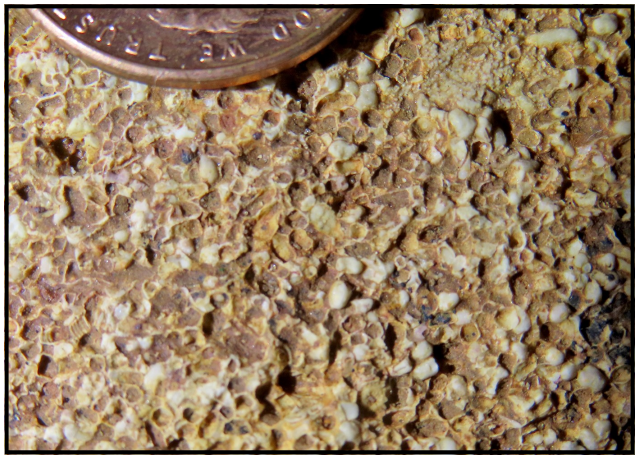
Fossil Hunting the Easy Way

by Mike Stone

After a couple bouts of heavy rain, Peg and I crossed the road and went into the crop field. Last year it was used for growing corn and this year soybeans will be planted. Runoff is a problem in this area because it causes deep gullies and washouts, and eventually water works its way into the ground and forms sinkholes. Some sinkholes are foot-size and others vary in size up to one hundred feet across and thirty or more feet deep. The older sinkholes have eighty-foot tall oak trees growing in them, indicating that the sinkholes were formed many years ago.

Easy pickings right off the ground.

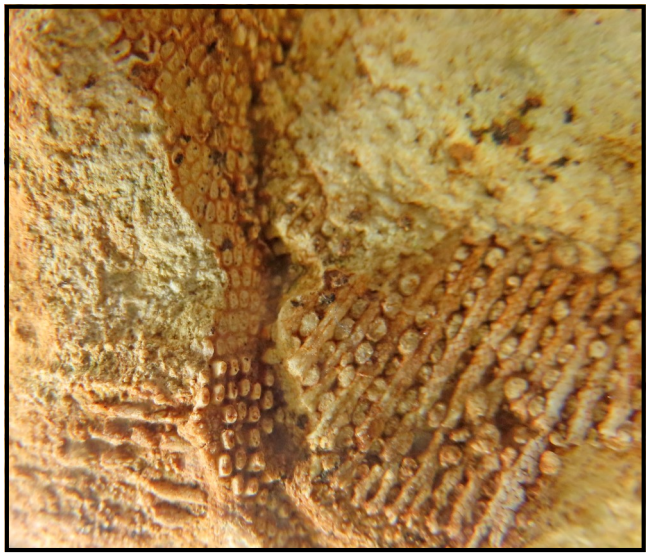
Each spring when we return from Florida and before the fields are planted we take the Mule (side-by-side UTV) and check out the gullies and edges of the sinkholes, looking for newly exposed rocks. This year we found several sea life fossils, mostly corals and bivalves, chert, flint, druzy quartz, and oolite (oolitic limestone). Most rocks were covered with dark Kentucky mud and some of the larger ones were buried so deep that it was difficult to unearth them, since we didn't bring any tools with us.



A close-up of oolitic limestone (oolite).

We brought home several specimens and might keep one or two, but we will bring the majority back to Florida with us to give away at a club meeting, assuming that our meetings will resume at some point.

Several pieces we found. They will need cleaning to expose details and fossils.



After cleaning these tiny fossils became visible. The little spheres are about 1/32 inch in diameter.

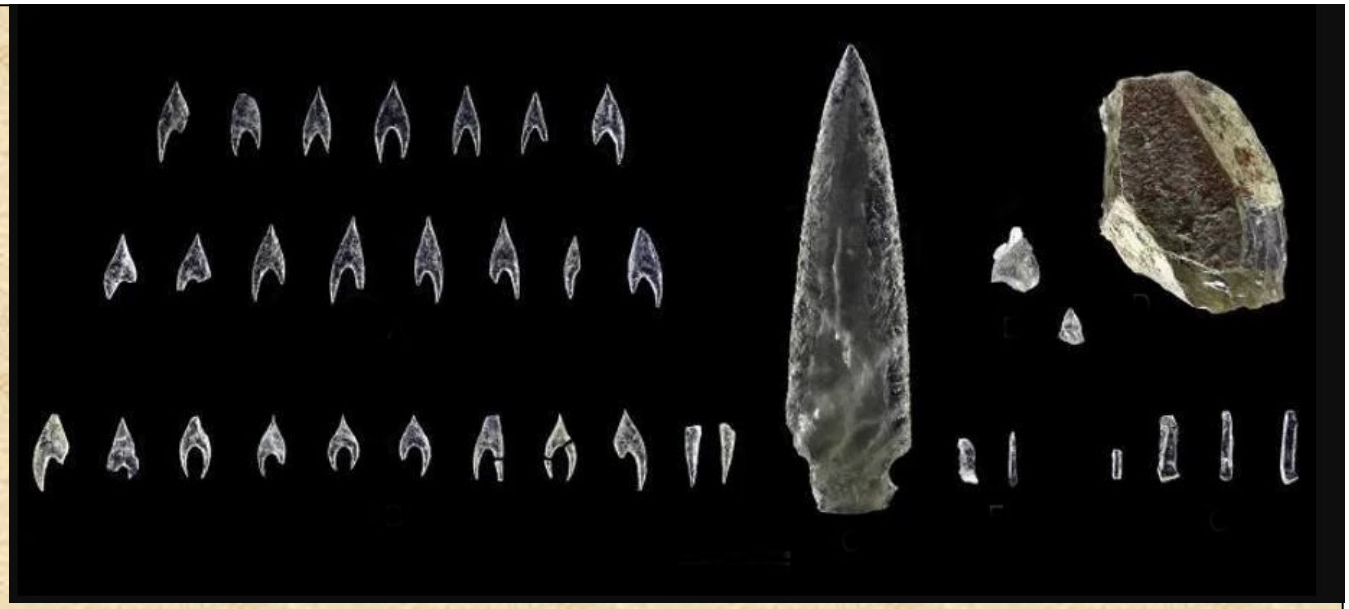
What Have You Been Doing?

Club members, tell us what you have been doing since our last meeting? Have you been collecting specimens, making jewelry, studying about fossils, rocks, minerals, geology, paleontology, etc. Send your information and photos to n1ve@amsat.org for the Rock Talk. Thank you.

While being isolated at home, Dave sent us several interesting emails about some of the fossil restoration he is working on and other interesting information and photos. This following is a compilation of those email messages.

Rock Crystal Artifacts

For information about crystal weapons:
https://www.ancient-origins.net/news-history-archaeology/amazing-crystal-weapons-discovered-within-5000-year-old-megalithic-tomb-021297



Rock Crystal Artifacts

Abstract

Rock crystal appears relatively frequently in Late Prehistoric Iberian sites, especially in the form of micro-blades and knapping debris. With some exceptions, however, these finds have seldom been looked into in any detail, and therefore little is known about the technology involved in the use of this material, its social and economic relevance or its symbolic significance. In this paper we examine a collection of rock crystal artifacts recently found at Valencina de la Concepción (Seville, Spain), one of the largest 3rd millennium BC sites in Western Europe. Among the objects included in this study are a long dagger blade, twenty-five arrowheads and a core, all of which form the most technically sophisticated and esthetically impressive collection of rock crystal material culture ever found in Prehistoric Iberia. Through the analysis of the procedures and techniques applied in the production of these objects, the chemical characterization of the raw materials through Raman spectroscopy and RTI image processing and the careful assessment of the archaeological contexts in which they were found, this paper makes a robust contribution towards the study of the role of rock crystal in Copper Age technology and society. Recent research suggest that Valencina was a major node in the circulation of exotic materials such as ivory, amber, cinnabar or flint in Copper Age Iberia, which provides a very good background to assess the relevance of rock crystal as a traded commodity. In addition we discuss the role of rock crystal as a marker of status in large megalithic monuments, as well as its possible symbolic connotations.

For more information about the ancient use of rock crystal:
https://www.researchgate.net/publication/283897457_The_allure_of_rock_crystal_in_Copper_Age_southern_Iberia_Technical_skill_and_distinguished_objects_from_Valencina_de_la_Concepcion_Seville_Spain

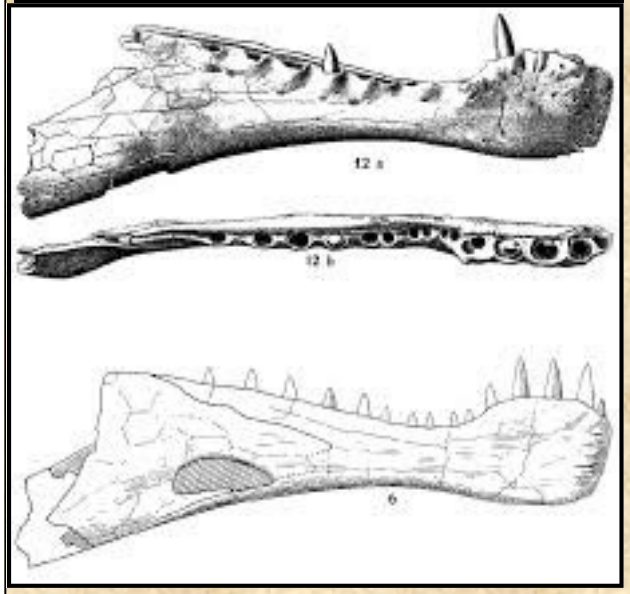
Fossil Prep

I've been catching up on fossil prep projects but will be starting the restoration of an actual size Spinosaurus egypticus jaw for Mark Moore and the Yankeetown School for next year. We were given over a dozen teeth and surangular part of the back of the jaw from Steve Cayer of the Dinosaur and Ancient Antiquities Museum

Continued on next page

The David Letasi Report from previous page

of Coco Beach, Florida last year. The specimens came from 110 million year old fossil deposit in Morocco, North Africa.



Spinosaurus egypticus jaw

The entire jaw should be somewhere between two and half to three feet long. Regarding our specimen, I've researched several specimens of late and cannot find a known surangular back half of the lower jaw. Ours may very well be the only one known. Time will tell if it is, with a little more research. I've provided photos of what I hope it will look like. (The one on the skeleton and the surangular is the top side of the back of the jaw.)

These teeth were found with the above specimen that I am sending to Paul. I will use these teeth mounted on the lower jaw I am fabricating for Yankeetown.

This message directed to:
Dr. Paul Sereno University of Chicago
Dr. Sereno,

I am currently working on a restoration of a Spinosaurus lower jaw based on a fragment for a public school mentor science program and exhibit. The specimen we have was donated by the Dinosaur and Ancient Antiquities Museum of Coco Beach Florida. The fragment appears to be a fragmentary surangular. It was discovered in Morocco with over a dozen Spinosaurus teeth. I have searched the internet for detailed photos of a surangular of both Spinosaurus and Carcharodontosaurus but can not obtain these from actual fossil specimens. I will forward to you if you wish photographs of the specimen for your expertise for the specimens identification. Any help regarding information on details of the lower jaw would be greatly appreciated.

If it has any scientific value we would certainly allow you to examine the specimen research it if it is important. You helped me on a Chinese dinosaur skeleton source of information for the Museum of Science and Industry of Tampa in 1997 and deterred a disaster for our museum allowing the correct mount we required. I've followed your work for several decades and have really appreciated you research and educational documentaries as a valued resource.

Once again thank you,
Respectfully,
David Letasi

Spinosaurus-skeleton

Spinosaurus Tail

Recently a nearly complete tail vertebrate series was discovered leading the scientific community to be convinced of its aquatic nature. The tail shape and depth would be perfect for propulsion in water.

Click on the link to learn more about the tail of the Spinosaurus.

https://www.google.com/search?ie=UTF-8&client=tablet-android-samsung&source=android-browser&q=new+spinosaurus+tail#imgrc=Nx7SpIFfH7qqXM:

Here's an up dated video on the latest Spinosaurus research.

https://youtu.be/De1VJ1UpjhM

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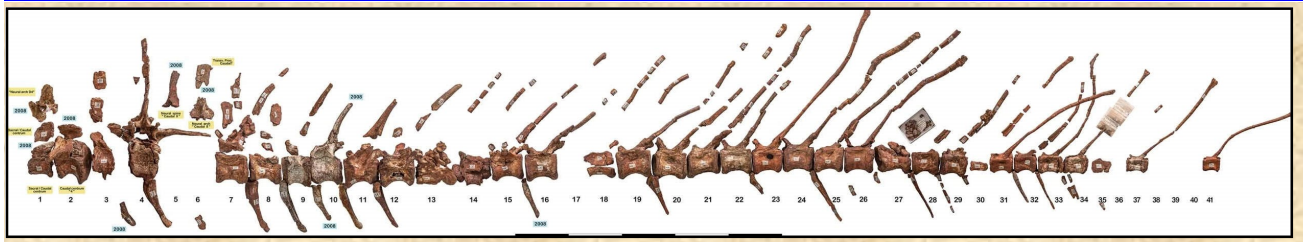


The Dave Letasi Report from the previous page.

Spinosaurus skeletal image

As you can see the tail is very distinctive. The skeleton is reconstruct from various individual partial specimens (colored bones). You can see just how fragmentary each individual find produced. Each of these specimens were of various sized individuals, each were run through a computer scanner for measurements and then calibrated to be shaped to conform to the largest specimen. All the data were then ran through a laser printer to duplicate each bone. In this way Paul Sereno from the university of Chicago produced the first life size skeletal mount based on all the evidence. Now that the tail has been established they will have to mount new tails on the skeletal restorations in several museums. I have two caudal vertebra and a pedal claw and a phalange in my collection as well. I'm going to send Paul photographs of our bone (surangular?) to see if I'm right and if there are other examples for comparison. Everything changes quickly in the field of paleontology. Just look under Google search "Spinosaurus new tail" and several good articles should come up.

I received Paul's viewpoint on our so called surangular. Paul believes it a fragment of transverse process on the anterior caudal vertebra. I've attached the new photos of the newly discovered tail vertebra.

If you increase the size limit on your CP you can see the transverse process on the number 4 caudal, its looks very similar to our bone. It's amazing how close the surangular and this process are shaped.

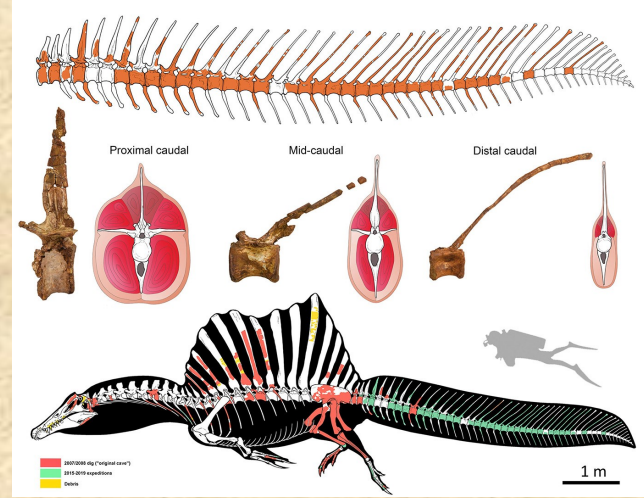
That's probably because ours is just a fragment. Anyway, I think it would be neat to display it as is and have this photo on display with it for Yankeetown exhibit. I will create a representation of an anterior dentary with our teeth rather than an entire jaw since the posterior portion of the jaw is still being sought and unknown.

Spinosaurus tail vertebra

This photo of the Spinosaurus tail vertebra is in my collection. I have two examples and I am considering restoring the dorsal spine to demonstrate their unusual anatomical shape used in swimming. It appears to be a sub adult and is still as large as the new tail recently discovered and reported. It is three inches in diameter and would be about tenth in the series (mid tail).

Three inch diameter tail vertebra from Dave's collection.

The following is the best illustration restoration regarding the anatomy of the tail based on the fossil specimens found by Najir. The three cross sections of the tail showing the bone in white surrounded by muscle structure in red, their dorsal spines are in line to where the cross section occurs in the restored bones directly above. You can notice how large the lateral transverse processes are on the anterior caudal and then disappear by the mid tail. This is what Paul thought our bone is but was hesitant to confirm until he actually handles it. I'm sending it to him this week. The two lower right drawings detail how long and narrow the dorsal spines became and slightly knobby on the end.



Spinosaurus

I'm planning on restoring my specimens to match the missing dorsal spine. It should be a fantastic display piece. I'm going to start on the lower jaw this week for our school. We're on the cutting edge of science, fun stuff.

Here is the best overall source of information for the Spinosaurus. Best overall resource

https://en.m.wikipedia.org/wiki/Spinosaurus

Keeping Busy During Isolation

by Mike Stone

Isolating at home hasn't been a problem for us. We have plenty to eat and plenty to do between the lawn, flower gardens, vegetable garden, fishpond, house maintenance, cooking, and various projects.

One of my recent projects was making a display for a fifteen-pound chunk of limestone, filled and covered with sea life fossils. We found the piece in one of several huge piles of dredged rock near the parking lot for the boat launch, just below the Englis Dam last Christmas Day. The rock is loaded with shell and coral fossils, and it would be a shame to break it up into hand-size pieces. But to display something of that size on a shelf would essentially hide at least half of the fossils. After giving it some thought I figured a rotating display stand would work well.

A close up of a small portion of the rock.

Years ago, not long after we moved into our house here in Kentucky, the power company cleared a swath of land for power lines. Trees were cut and pushed into piles along the edges of the cleared strip and left to rot. But before they rotted, I cut several large chunks of clear wood from white oak, red oak, and hickory. Once they sufficiently dried, using a chainsaw, I squared the ends and sliced down the outer edges of the wood to form five or six sided chunks of wood. Then I planed and sanded the sides and top, stained and applied several coats of polyurethane, and finally waxed and polished them. These chunks are very heavy and make substantial tables for vases, phones, lamps, as well as for rocks, minerals, or fossils specimens.

Because fossils are visible on all sides of the big specimen, I made a rotating table from a twelve-inch diameter lazy Susan bearing that was purchased at Lowe's. I used the table saw to cut a piece of 3/8 inch thick Lexan that I had been storing since the 1990s, and then cut it into a circular disk about thirteen inches in diameter using the band saw. Next I polished the edge of the Lexan with abrasive paper, polishing compound, and a cloth wheel. Since the Lexan is a smoke color and translucent, I sprayed the backside (where it attaches to the lazy Susan) with black paint, so the lazy Susan would not be visible through the top of the Lexan. To keep the specimen from scratching the soft Lexan, I folded a small towel and placed it between the limestone and the plastic.

Twenty two inch tall oak base with Lexan turntable.

The wooden stand, lazy Susan, and fossils have a special spot in our dining area where light from the windows on both sides illuminate and bring out details on the surface.

A slight nudge and the rock turns, exposing more fossils.

Now that the big rock has been on display in the house for a while, we frequently check it out by rotating the specimen. Sometimes we use a hand lens to find new and interesting fossils. We found a small patch of druzy quartz and also discovered that the 3/8 inch diameter holes that we assume are worm tubes are lined with druzy quartz.

Rock Art

For Sale Items

Club members can post appropriate club-related type **for sale** items in the *Rock Talk* free of charge. Contact your editors by the 25th of the month to have your items posted in the next issue.
Mike Stone n1ve@amsat.org

From the Editor

The month of June begins the third month where most of us have been seriously having to deal with the coronavirus. Lives have changed in many ways and it's likely that we will not return to "business as usual" soon, if ever. We certainly don't know what the future will bring as far as Withlacoochee Rockhounds meetings, field trips, and other activities that we have been enjoying for so long. All current members have paid their 2020 dues, yet we have not had any activities during the past two months and none are scheduled for the month of June.

The club has continued to publish the Rock Talk, which at this point, is our only means of bonding members and sustaining interest in our hobby. Hopefully the articles and photos have stimulated enthusiasm in geology, mineralogy, jewelry making, fossils, rocks, minerals, and rock hounding. Those of us who have submitted articles and information to the newsletter to inform, educate, and entertain our members would like others to join in and contribute too.

Is there anything that you can tell us or show us about how you are dealing with life during the COVID-19 situation? Many of us who are being cautious about becoming infected with the virus are spending day after day housebound or shopping only when necessary. Therefore we have plenty of time on our hands and there is only so much cooking and eating, housework and cleaning, mowing and weeding, reading and TV watching that we can tolerate. How about expanding your knowledge and skills in areas for which you just didn't have the time or motivation.

As you read in this newsletter, Peg and I are still "rocking" to some extent. Peg has been reading more than ever and working in her flower gardens and pond. Cooking has become less of a chore and more of a pleasure. I keep busy working in the shops, writing, mowing, organizing my amateur radio shack, talking to friends on the radios, and relearning Morse code.

As someone once told me, "The amount of work that is accomplished is indirectly proportional to the time in which one has". I suspect to some extent that is correct, probably most of us work more efficiently under pressure. But lately most of us have had an enormous amount of free time and whether or not we are efficient, we probably have accomplished quite a bit during the past two months. So how about devoting a little time and thought to providing our club members with interesting and educational information (rock related or not). You might be spurring one of us into taking on a new and rewarding endeavor.

Send anything that you think is fit to print to n1ve@amsat.org. I will thank you and your fellow club members will appreciate your efforts.

Use Our Website

If you don't receive an email with a link to the *Rock Talk*, you can access our website for the newsletter or up-to-date club information. Also, previous *Rock Talk* newsletters can be downloaded from our website. They have been posted from June 2016.

www.withlacoocheerockhounds.com

Mike Stone, editor/webmaster

What is It?

Can you identify the specimen below?

Answer in this *Rock Talk*.

Last month's "What is It?"

Labradorite sphere

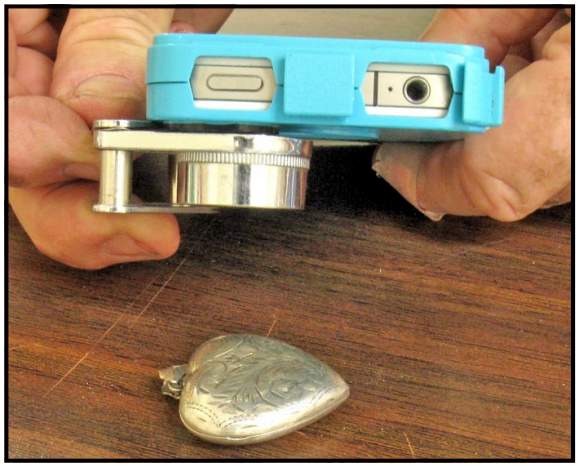
Fluorescence: aragonite
sprays in clay from Pantoja,
Toledo, Castile-La Mancha,

Bench Tips
by
Brad Smith

Bench Tips for Jewelry Making **and** ***Broom Casting for Creative Jewelry*** **are available on Amazon**

Quick Close-ups

Often when trying to get a close-up photo with your iPhone or Android, you end up with a fuzzy, out-of-focus image. Next time try using your loupe over the camera lens. It works quickly and easily.



Little Things Can Bite

Most jewelers treat motorized equipment with caution. We've all heard stories about workpieces coming loose in the drill press or about getting long hair or clothing caught in the polishing machine. It stands to reason that a machine with a motor of a half horsepower or so is going to win out over its operator. We all know that, and I'm not going to harp on it. That's not the point of this story.

I want to talk about the smaller motor powered machines we often use, the ones with little three-inch diameter motors. For instance, these small motors are used in flexshafts and micro buffers. They're so small that many of us forget caution when using them. I'm guilty of it myself sometimes, and believe me it can get you in trouble. Here's what happened to two people I know.

One friend had a polishing burr bend in the hand piece and then whack the thumb that was holding the workpiece. The swelling was substantial, and it took several weeks to regain normal use. A small underpowered motor? Not so.

Another friend was using one of the small buffing machines, the kind you can stop when you apply too much pressure to the wheel. Not to worry about such an underpowered beast you say. Wrong, it literally jumped up and bit the hand that feeds it!

Buffer was set on a low table to do a quick polish, so was not mounted or clamped. A buff was installed on the right spindle, no buff on the left. Friend was wearing a tight-fitting, long-sleeved sweater. While buffing on the right wheel, the left tapered spindle caught a thread on the friend's left sleeve and started grabbing more and more threads and sleeve.

Rather than pulling the arm into the machine, the light buffer quickly lifted off the table and started climbing up the underside of the friends arm. There was no way to get a hand of the on/off switch because the unit was spinning wildly and battering my friend like a club wielded by a mad man. Only when someone nearby could grab the power cord and yank it from the wall did the mayhem stop.

So when you're in the shop, please think safety. Don't take even the little motors for granted.

Also I'd like to give you a quick update on my Culver City, CA club effort to hold their meetings online. Last week, yours truly gave a slide show on sand casting for jewelry followed by a live demo of making a pour.

The virtual meeting went well. Members chatted back and forth until enough had signed on to start the meeting. We kind of dispensed with the business session except for a brief vote on minutes. But the presentation went off as planned.

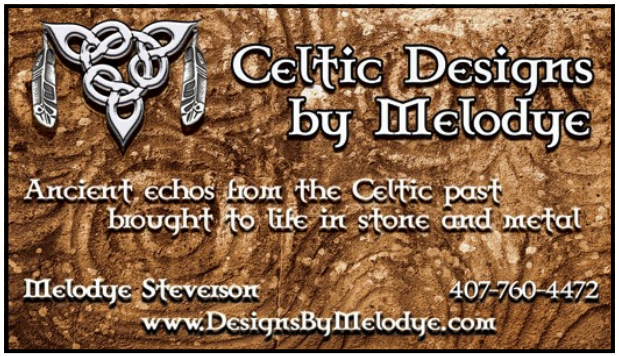
Zoom makes it easy for meetings like this. Every session is password protected now to avoid any interference, but Zoom gives you a single link that lets members join in without complications. As speaker and demonstrator, I signed in twice. First was for my desktop to run the slides. Second was for my phone for my audio and video. Since the club has set up an account ($15/month), meetings can go on for hours.

Here's the presentation. You can skip forward to my slide show at timecode 22:20 Enjoy.

https://zoom.us/rec/play/7JEqcun9rzk3T4GQtASDV6MtW9W_Kq6s23Qb-PoLnhy3VXFVMQbyYrcXauL-LvZo7NWIDISUHC8yLLUa

Learn New Jewelry Skills With Brad's How-To-Do-It Books

June Club Meeting Cancelled



Show Us Your Stuff

We're always looking for information for the *Rock Talk*. Club members would enjoy seeing other members' rock cutting and polishing equipment, display cabinets, projects, and favorite specimens. Take a photo and send it to your editors along with a description and we will be glad to include it in our newsletter.

Mike Stone
n1ve@amsat.org

Club Members' Business Cards

Club members who have businesses related to any of our club activities can have the images of their business cards posted in each issue of the Rock Talk. This is an additional benefit of being a **Withlacoochee Rockhounds** member. You can send electronic images or an actual business card to:

n1ve@amsat.org
or
Mike Stone
4504 Kingston Dr.
Hernando Beach, FL 34607

Your Favorite Specimen

We are always looking for something of interest for our club members. We're sure many club members have specimens in their collections that would be of interest to others in the club. If you would send us a digital photograph of your specimen we can publish it in the *Rock Talk*. A bit of information such as what it is, when, and where you found it would be great. If you don't have a digital camera, bring your specimen to a club meeting for others to see, and perhaps someone at the meeting could photograph it for the next issue of *Rock Talk*.

Rock Talk editors: Mike Stone and Peggy Burns
n1ve@amsat.org

Getting to Know You

Send us a few words about your interest(s) and/or hobby(s), whether or not they are related to rock hounding, we will print them in future issues of *Rock Talk*, and you might find that other club members have similar interests.

Withlacoochee Rockhounds is now on Facebook

https://www.facebook.com/withlacoocheerockhounds1/?ref=page_internal

Withlacoochee Rockhounds
PO Box 5634
Spring Hill, FL 34611-5634

Withlacoochee Rockhounds
Membership Form

Annual Dues: Individual member, $20. 00. Under 18 years of age, no charge.

Check if new member ❑

Please Print Clearly

Last name _____ First Name _____ ❑ **Check if under 18**

Street Address:

City _____ State ZIP

Phone Number (s)

Email address:

Give this completed form along with your check for dues made out to "Withlacoochee Rockhounds" to club secretary Janet Wheeler at a club meeting. Or mail the form and your check to:

Withlacoochee Rockhounds
PO Box 5634
Spring Hill, FL 34611-5634

2020

Your Business Card Size Ad in Rock Talk

The cost for non-club members to advertise their businesses in *Rock Talk* is $10.00 per month. . Contact Mike Stone to set up an ad in both the club newsletter and our website. It will benefit both your business and our club.

Advertisers Needed

Please help us find advertisers for the *Rock Talk* and our website. The club can use the monthly income. Both the *Rock Talk* and our website have more exposure than only club members

Contact club treasure Janet Wheeler: ceecgirl@tampabay.rr.com or send to:

Withlacoochee Rockhounds
PO Box 5634
Spring Hill, FL 34611-5634

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Spring Hill, FL 34611-5634

Withlacoochee Rockhounds

Purpose

We are a non-profit organization whose purpose is to foster interest and promote knowledge of minerals, gems, fossils, lapidary arts, and earth sciences, through regular meetings, informative programs, workshops, and field trips. PLUS our annual gem and mineral and jewelry show. Membership is open to anyone sharing such interests.

Dues

Dues are $20.00 annually for adults and no cost for children under 18 years of age.

Club Meeting Location and Time

Weeki Wachee Senior Citizens Center, 3357 Susan Drive in Spring Hill. The meetings are held on the second Wednesday of the month at 7:00 PM.

2020 Club Officers and Appointees

President	Judith Birx	352-587-1702	judithbirx@hotmail.com
Vice President	Mark Moore	352-586-9607	markles@bellsouth.net
Secretary	Melodye Steverson	352-683-9496	melodye@designsbymelodye.com
Treasurer	Janet Wheeler	727-938-3644	ceecgirl@tampabay.rr.com
Rock Talk Editors	Mike Stone / Peggy Burns	603-524-0468	n1ve@amsat.org
Club Web Master	Mike Stone	603-524-0468	n1ve@amsat.org
Mailing Reporter	Janet Wheeler	727-938-3644	ceecgirl@tampabay.rr.com
Gem Bag Coordinator	Gloria DuPont	352-848-5199	ddupont@tampabay.rr.com
Audio/Visual Coordinator	Michael Steverson	407-376-5570	highlander56@gmail.com

Board of Directors

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Judith Birx (president)
Mark Moore (vice president)
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Melodye Steverson (secretary)
Ginny Steverson (2021)
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Lynn Walters (2021)
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