ROCK -N- ROSE

PAGE 1 VOLUME 34 TYLER, TEXAS ISSUE 8 AUGUST 2008

Coming Shows, 2008

SEPTEMBER 20-21
RICHARDSON, TX
Pleasant Oaks Gem & Min.
EMGI at Brookhaven College

SEPTEMBER 26-28
HOUSTON, TX
Houston Gem & Min. Soc.
Humble Civic Center

SEPTEMBER 27-28
DENISON, TX
Texoma Rockhounds
Denison Senior Center

OCTOBER 11-12
TEMPLE, TX
Tri-City Gem & Min. Soc.
Mayborn Civic Center

FIELD TRIPS

San Saba field trip
September 6th!!

INSIDE THIS ISSUE

PRESIDENT'S MESSAGE

Low attendance at the meeting but that's not unusual for the summer-time. Good time was had by all exchanging tales of fortune and mis-fortune relating to their pursuit of rock hounding. Brought out some good points about keeping safety in mind whenever we are collecting specimens or working with lapidary equipment.

Two major shows coming up this month. Jasper's show is scheduled for 8/23 - 24 and is usually a nice one. Has always been worth the drive for me. I encourage everyone to go to this show and help support our neighboring club. In addition, the Arlington show is scheduled for 8/30 - 31. Usually a good show also.

Field trip to San Saba scheduled for 9/6 sounds like lots of fun also. Lots of good collecting sites around there and on the way. Might hook up my old Silver Streak and make a long weekend of collecting out of it. If you go please pick up some extra stuff for the club. Also please keep in mind that the club auction is coming up and we'll need speci-mens donated for that. Until next time, happy collecting !!!!

Robert Criss

NEXT MEETING HELD SEPTEMBER 8TH

Fossil and Mineral ID Day

The Texas Memorial Museum at the University of Texas at Austin will be holding a fossil and mineral ID day. It will take place on Sunday, August 24th, from1:00 to 5:00 p.m. Scientists and experts from all over Central Texas will be on hand to look at and identify natural objects (fossils, bones, rocks, gems, etc.) For more info visit <http://www.utexas.edu/tmm/
> or contact Pamela R. Owen at (512) 232-5511 or send her an email at *powen@mail.utexas.edu*.
~Synopsized article from Fredericksburg Rockhounds Newsletter, 8/08 Via Stone Chipper 08/08

AUGUST MEETING MINUTES

The monthly meeting of the East Texas Gem and Mineral Society was convened at the Discovery Science Place in Tyler , TX on August 2, 2008. Meeting was called to order at 7:02 pm by Club President, Rip Criss. He welcomed all Club Members and visitors. Penny Hawkins acted as Secretary of the meeting in the absence of Becky Whisenant.

A motion to accept the minutes of the July meeting as published in the Rock N Rose newsletter was made by Laura Wilson and seconded; motion was passed by a unanimous vote. Treasurers report was given by Jeri Kitchens. New Business: Keith Harmon made a motion to send a contribution to the Federation Scholarship Fun, seconded by Jack Shull and unanimously carried: RESOLVED, one dollar will be added to the membership annual dues and that total sum will be designated to the American Federation Student Scholarship Fund.

Laura Wilson, Field Trip Chair, gave a report on the July trip to the Houston Museum of Science. The next field trip is scheduled for Aug. 8 to the vicinity of Elkhart , TX to look for selenite and petrified wood. Maps and handouts were provided. The Club to host the Ft. Worth Gem and Mineral Club for that outing. She detailed the field trip scheduled for Sept. 6 and projected plans for a trip in October.

Also under new business was a request from Keith Harmon for input on what prizes the Club members want to offer at the annual show in January. General discussion about what door prizes have generated the most interest at past shows.

WHEREAS the first Monday in September falls on Labor Day, a motion to move the meeting to September 8 was approved by unanimous agreement of members present.

President Criss reminded the members that the annual Club auction has been moved to the October meeting due to the large number of members who will be attending shows out of state.

Keith Harmon made another motion for the Club to pay the expenses of Club officers attending the American Federation Show in Houston, motion was seconded by Ed Wheeler and approved by Members present.

Door prizes were awarded and a break was called by the President

Following the short break, program was presented by Don Campbell on his adventures and misadventures over the years collecting rocks and fossils. His searches have spanned a lifetime from childhood when his massed collections may have cracked the foundation of his parent's home, to how he talked Darla into going to New Mexico on their honeymoon, to an abandoned mine site. Darla concurred and added some interesting observations which added to the hilarity. Don asked the others to regale the audience with stories from their own collecting adventures. Rip Criss responded with a tale of collecting along the Natchez Trace in Mississippi. His story involved wild hogs and tripping over a dead body in his scramble to a tree to escape the marauding wild porkers. The body later was identified by authorities as a combatant in the war that raged in those woods more than 100 years previously. Keith Harmon and Jack Shull also made contributions with their adventures, including an admonition from Jack to club members not to go out collecting by themselves. Laura spoke on her trip to mine for Herkimer diamonds and how she later missed the garnet mine location only to find garnets scattered on top of the ground under the chair lift at the ski area. Other club members shared experiences.

The meeting was adjourned at 8:44 p.m.

Respectfully submitted by Penny Hawkins

SEPTEMBER PROGRAM

TBA

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OCTOBER PROGRAM

It is coming up time for our annual auction. This is one of the largest fund raisers we have for the club, still with the goal of having our own clubhouse. So, gather up those rocks you've got laying around (and we all have some) to donate to the auction. Then come ready to bid on new things to take home for your collection.

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Field Trip for September 6, 2008 (Overnight optional)

This is the big of the big field trips. We will be guests of the San Antonio Gem & Mineral Club, who will be hosting us, The Fort Worth Gem & Mineral Club, The Fredericksburg Rockhounds, The Kerrville Gem & Mineral Club, and the Denton Rockhounds. WOW!

There is talk from the Big Chief (Claude Townsend) about putting on a potluck lunch while we are all together. More on that later……..We are going to be meeting up with Claude Townsend in front of the courthouse in San Saba. Across the street from Burnham's' lodging. :)@ 8:30am or so.

We talked about 45 minutes a few days ago, he is a very interesting person! Both him and his wife are! Both rock hounds, they are leaving for Florida to Rucks' pit, and then he is going to scuba off some point to collect....how awesome is that

Believe me when I say there is PLENTY of room to SPREAD out and collect!

Please be sure to mention Tyler Gem & Mineral Club when you book your reservation.
Besides getting a choice place to sleep, we get an additional 10% off.

Continued on pg. 4

We will be collecting at the Kyunkendayle Ranch, and our specimens are the beautiful brain coral, with drusy quartz, with inclusions of gastropods, and other wonderful sea creatures. The fee is $5.00, no lb. limit.

Then, I believe most want to go to the Lambert Ranch the same day and collect fossils (crinoids) in pink limestone. The fee is $10.00 and there is limit of 35lb.

Then those that are staying over for Sunday, I have contacted the San Saba County Museum at Mill Pond Park for a view. Probably about 9am on Sunday, or maybe Saturday evening (we'll discuss it the closer it gets). J.

On our way back home, those that want to can drive by the Regency & Beveridge Bridges. These two bridges are 2 miles Northeast of San Saba; it has a little history in the handout that I have provided. ½ mile from the Wedding Oak (that's another hand out.
Those that are interested can take in Alamosa Wine Cellars Tour, not too far out town to the East (another way to get home). Hand out with directions is provided too.

And lastly, we will be stopping on our way home to collect Turretela limestone for those that don't have any of this. (I want to get a count of exactly how many are interested.)
My job as field trip chair has been very rewarding, I have met (outside our club) some very nice, interesting, and collectively sharing field trip chairs.

I will be giving up the position of field trip chair at the end of the year.

Take care, Laura

A SLAB COLLECTED BY CLAUDE TOWNSEND, FROM THE LAMBERT RANCH

BRAIN CORAL W/ DRUZY QUARTZ

Mostly Nothing

By J.W. Downs
AGMS Club Member

It is impossible for us to comprehend and visualize anything as large the universe or as small as sub-atomic particles. The best we can do is to construct models in our minds that best represent these extremes and relate them to things that we *can* understand. Humans stand somewhere in the middle between the very large and the very small, so we must scale both extremes to fit our limited abilities to visualize. Taking the largest first, the visible universe consists of so many galaxies that it is pointless to try to express them in numerical terms. Their average spacing is measured in millions or billions of light years. There are billions of stars in each galaxy. Mathematical notation fails to give a meaningful *feeling* for their size and number. It is more important to understand that the dominant feature of the entire universe is that of empty space.

If all of the trillions of stars in the visible universe were to be reduced to the size of grains of sand and spaced equally instead of concentrated in galaxies, the spacing has been calculated to have an average distance of 15 miles between each grain of sand.

Numerous models, called planetariums, have been constructed to demonstrate the position of the sun and planets of the Solar System. They have ranged in size from desk-top models for class rooms to large mechanical devices using gears and chains that demonstrated the orbital inclination and rotation of the planets and their more prominent satellites. These analog devices are useful to show the position of the planets with relation to the sun and to each other. They give a vague impression that the sun and outer planets are large when compared to the inner planets, but could not begin to show their size to an accurate scale. Scaling their distances from the sun is out of the question for any model that could be housed in a single building.

The **Sweden Solar System** is the world's largest scale model of the Solar System. The sun is represented by the Globe Arena in Stockholm, the largest hemispherical building in the world. The inner planets can also be found in Stockholm, but the outer planets are placed northward in other cities along the Baltic Sea as follows:

Body Location Miles Distant Diameter

The Sun Globe Arena in Stockholm 0 233 ft.
Mercury Stads museum, Stockholm 1.8 9.4 in.
Venus Royal Inst. of Technology 3.42 24.4 in.
Earth In Cosmonova Museum 4.7 25.6 in.
Mars Mörby Centrum center 7.2 13.8 in.
Jupiter At Arlanda Airport 25 24 ft.
Saturn Near Ångström Lab, Uppsala 45 20 ft.
Uranus In Gävle 89 8.5 ft.
Neptune In Söderhamn 142 8.2 ft.
Pluto Near Dellen Sea in Delsbo 186 4.7 in.

The asteroid **Eros** in this model is located in a school at Mörby, 7 miles way. It was made as a Valentine 's Day project, in gold, since Eros was the god of love. Its size is .0789 x .027 x .027 in., making it smaller than most gold dental crowns.
Since physical construction of astronomical models is impractical, it is best to fall back on Einstein's favorite

tool—*imagination*. The entire universe can be represented in three successive thought models. The first model will be the Solar System, which is a reduction by a factor of one billion. We now have a model of the Earth at one half inch diameter with the moon the size of a BB orbiting at a distance of 16 inches. At this scale, the sun is 4.5 feet in diameter at a distance of 480 feet. These distances are impractical to house in a building, and when we include the outer planets, it becomes impossible, with Pluto orbiting four miles from the Sun. What stops the model builder in his tracks is the inclusion of anything in the universe outside the Solar System. In this scale of one to one billion, the nearest star is farther away than the distance around the earth. In a model that should furnish the visitor with a stout reading glass to view the moons of Mars, we find all stars except the Sun so far away we not only can't visit them, but have difficulty imagining where they are since the distances are now as *astronomical* as if we had made no model at all.

The way around this is to make a model of the model. This second model is a further reduction of a million and finds Pluto's orbit about half an inch in diameter. The Sun's diameter can best be pictured only as a point of light. But where we might expect many points of light, again the almost overwhelming emptiness of the universe confronts us. Proxima Centauri, nearest companion of the Sun, (4.24 light years), would be 130 feet distant. Our Milky Way galaxy at this scale would sprawl in a void with a 600 mile diameter and with no dense part of it large enough to be comfortably visible to the unaided eye. The giant Antares would measure only 0.002 inch. The Hercules Cluster with its more than 50,000 stars would be a little more than half mile in diameter and more than 200 miles from our dime-size Solar System.

Now things are unwieldy again, so a model of *this* model is in order with a further reduction of one million. Now our galaxy (100,000 light years across) is pictured as a glowing pinwheel three feet across. The idea of picturing the size of the billions of stellar masses in it or their possible planetary systems is meaningless. The great wheel in Andromeda would be placed within 35 feet from our Milky Way galaxy.

Stretching to distances of many miles, galaxies spread out in all directions with a random milling movement and an accelerated recessive velocity from any point, proportional to the distance. Note that the speed of light (186,000 miles per second) has also been scaled and at this reduction would crawl at a rate of 0.00038 inch per year, or an inch every 2,800 years.

After this brief excursion into the emptiness of the universe, we would like to take comfort in finding that we are at least on *solid* ground here on earth. This is not the case. We have all studied models of the crystal lattice of minerals that are usually made up of ping-pong balls strung in a network of dowel rods. These show atoms in their relative angular positions, but fall far short of representing an accurate dimensional scale. Richard Dawkins made an analogy to soldiers at parade rest, spaced one meter apart. If their heads represented atoms scaled up to eighteen centimeters in diameter, the space between their heads would be at least one kilometer. While this analogy was used to demonstrate the atomic spacing within a crystal lattice, the same principle would apply to any matter whether crystalline or amorphous.

Again, we find that solid material is mostly empty space. This explains how neutrinos can pass completely through the earth and out the other side without colliding with anything. We have all studied the Bohr atom models with their relatively large nucleus surrounded by orbiting electrons. We might think that at last we have something solid, but we find that the space between the atomic particles is proportionally as great as in the previous examples, again showing that even atoms are mostly open space. If a model of a large atom whose nucleus could be imagined as a bag of oranges were placed in the center of a baseball stadium, the tiny orbiting electrons would extend to the most remote seats. Again, we have mostly empty space. It would be presumptuous to believe that everything has been covered from the observable universe to sub-atomic

particles in one short essay. The purpose is to show that, with the possible exception of white dwarf stars, neutron stars, and black holes, empty space is the dominant feature of the universe at every level. There is space between galaxies, space between the stars within galaxies, space within orbiting planetary systems, space between atoms in solids, and space between the nucleus and orbiting electrons that comprise atoms.

Possibly Jonathan Swift *(1667 - 1745)* had something like this progression in mind when he wrote:

So, Naturalists observe, a flea,
Hath smaller fleas that on him prey;
And these have smaller still to bit 'em;
And so proceed *ad infinitum*.

References:

Cloud, Preston (1978). *Cosmos, Earth, and Man. New* Haven: Yale University Press.
Dawkins, Richard (2003). *A Devil's Chaplain.* New York: Houghton Mifflin Company.
Downs, Hugh *Three Scale Models of the Universe.* (Private publication) Via The Stone Chipper, 05/08

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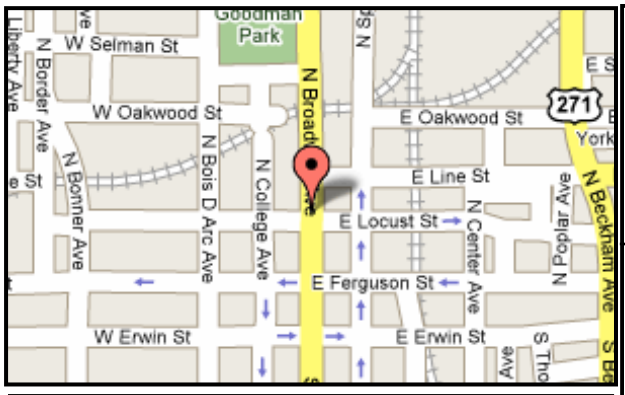

THE EAST TEXAS GEM AND MINERAL SOCIETY MEETS ON THE FIRST MONDAY OF EACH MONTH, UNLESS THAT DAY IS A HOLIDAY, THEN THE MEETING IS MOVED TO THE SECOND MONDAY. WE MEET AT THE DISCOVERY SCIENCE PLACE, 308 NORTH BROADWAY, JUST NORTH OF DOWNTOWN TYLER, TEXAS. MEETINGS BEGIN AT 6:45 P.M.

NOTE TO EDITORS

Feel free to use contents and graphics for non-profit newsletters. Give credit when and where due.

Purpose of the East Texas Gem & Mineral Society

Is to promote the study of geology, mineralogy, fossils and the lapidary arts.

The public is always invited to attend all club meetings.

Annual dues are $10.00 for adults and $2.50 for juniors.

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