

# **SHOW-ME ROCKHOUNDS**

NOVEMBER 2005 NEWSLETTER

**MEETINGS are held at the WESTPORT PUBLIC LIBRARY the 3<sup>rd</sup> Tuesday of each month at 7:00pm. The library is located at 201 Westport Rd. KCMO. There is parking on the side and in the rear of the library. Dues are \$10.00 per family and \$5.00 for individual memberships. Show-Me Rockhounds is a non-profit organization affiliated with the Association of Earth Science Clubs of Greater Kansas City, Inc. and the Mid-West Federation of Mineralogical Societies. Our purpose is to further the study and awareness of the Earth Sciences amongst our membership and the public.**

**OFFICERS:** Marty Mueller President; Vice-President ????  
Sharon Penner, Treasurer; Secretary & newsletter Carol Ferguson.

## **PRESIDENT'S MESSAGE:**

Howdy Friends:

Oh for those tumbling leaves of autumn, they are the image that my President's message is while bouncing around in my head. I want to touch on a number of things.

Our meeting is after Ed Tripp's Show of Nov. 4, 5, & 6<sup>th</sup>; Charley and I are looking for display boxes. What will you be looking for? We'll be able to have a small show and tell at the meeting.

With the show being history at the time of our meeting, I hope Rolland had plenty of help with the Association Booth. All of us in the Association had been so comfortable with Ted and Carol setting it up and working that maybe a mystic has formed over the booth. One that makes us wonder how the set up was accomplished.

Our kitchen table is covered with calcite and reptile bones, and the dinning room table has other specimens, old news letters, a drawing board, and a couple of bags of marbles. While trying to put the rocks in order we are working to keep proper labeling and we have bought small boxes for the bones. When we were looking for the boxes I was thinking about what a professor of mine had said about being a lumper or a splitter when organizing collections; so I got a mix of small boxes for individual bones and slightly larger boxes with compartments to hold groups of bones. The labels for the four larger boxes are: limbs and toes, spinal column and ribs, jaws and teeth, and one for pieces of the skulls and pelvises with mystery bones included. I have used several of the small boxes: five claws (may be 3 species), a couple of the largest back bones and one that Bill May (research associate at OU) said was the first spine past the pelvis, the smallest of the toe bones, and a group of boxes separating the different styles of jaw and tooth arrangements. Even with a concerted effort at picking up, I think we'll be going to the folk's for Thanksgiving.

Remember one and all, it is about time for new officers. So please think about the programs and projects you want to see over the next year or two and share your ideas with everyone at the meeting. Martin



**\$25 EACH CALL Carol @ 816-460-4276**

**An article from Martin:**

I think all of our members know of the three rock forming classes: metamorphic, sedimentary, and igneous. As much as I want to go in depth with the rocks and minerals of Missouri and Kansas, the first mineral that came to mind for mineral of the month was Albite.

Albite belongs in the feldspar family, and feldspar is an important member of the Plutonic igneous class of minerals. While I was looking into albite I found that I wanted to share some of the information about the plutonic system and the importance of feldspars.

Plutonic igneous rocks have many interesting bits and pieces of information, from a polka to a waltz on to a ballet of chemical actions and reactions. The chemistry of igneous rocks is what supports life on earth.

**Acid to Base**

I remember from the University, a diagram for the formation of minerals in the shape of the letter “Y”. The upper limbs contained minerals that needed high temperatures and high pressures to form; these were unstable at earth’s surface and would weather rapidly. The base of the “Y” was quartz with its sturdy low temperature, low pressure structure, very stable on the surface. This diagram has a certain elegance to explain the weathering of minerals.

While I was reviewing albite, I came across a simpler diagram based on a circle. At twelve o’clock is acid, at three o’clock is intermediate, at six thirty is basic, and ten o’clock is ultrabasic; these then had an outer ring of minerals.

Twelve o’clock is to quartz.

One o’clock is muscovite mica.

Two thirty is potassium feldspar.

Three thirty is sodium feldspar.

Four thirty is pyroxene.

Six o’clock is biotite mica.

Seven thirty is calcium feldspar.

Eight thirty is amphibole.

And at nine thirty is olivine.

From quartz as being in the acid group to the two intermediate feldspars, then to the basic calcium feldspar and finishing with the ultrabasic olivine, each gradation being more susceptible to chemical weathering. It is through this weathering that our soils get the minerals that plants need for growth. Martin.