

The official bulletin of the Dothan Gem & Mineral Club, Inc.

# ROCKHOUNDS HERALD

920 Yorktown Road, Dothan, AL 36301-4372

[www.wiregrassrockhounds.com](http://www.wiregrassrockhounds.com)

**November 2013**



## Words from...

### The President

Great turn out for last month's meeting, and the Show & Tell portion was well worth coming out for! So were the vibrantly colored snacks. Thanks go out to the Merinos for the wonderful array of tasty refreshments.

You can see from the list below, there are a lot of gem and mineral shows coming up in the next couple of months—all of them within relatively easy driving distance, and at least one of them (the Montgomery show) can be visited in the space of an afternoon. If your Christmas shopping list includes rockhounds—yourself or others—one or more of these shows might be worth a look.

At this month's **meeting at 2:00 PM on Sunday, November 24<sup>th</sup>**, we'll have several pieces of business to discuss, including planning our annual Christmas Social and selecting candidates to serve as officers for the coming year. If you haven't been a club officer yet—or haven't been one lately—I ask that you seriously consider volunteering this year. We want to spread the duties around and prevent officer burnout. That's the best way to help keep the club fresh and to bring in new vision and energy, as well, as more new members.

As for the Christmas Social, please speak up and make your ideas known. We want to make the social a truly memorable event and fun for all. If you can't make it to the meeting on Sunday, but you have an idea to suggest, just give me a call or let one of the other officers know. All our contact info is on the inside back cover of the newsletter.

See you Sunday.

Jeff

## Upcoming Shows

November 21 – 24	Georgia Mineral Society	Cartersville, GA
November 22 – 24	Columbia Gem & Mineral Society	Columbia, SC
November 22 – 24	Cobb County Gem & Mineral Society	Marietta, GA
November 23 – 24	Gem & Mineral Society of the Palm Beaches	West Palm Beach, FL
November 29 – December 1	Mobile Rock & Gem Society	Mobile, AL
November 29 – December 1	Withlacoochee Rock Hounds	Spring Hill, FL
December 6 – 8	Montgomery Gem & Mineral Society	Montgomery, AL
December 13 – 15	Mammoth Rock Shows, LLC	Norcross, GA
December 14 – 15	Mid-Tennessee Gem & Mineral Society	Franklin, TN

Sources: [www.the-vug.com/vug/vugshows.html](http://www.the-vug.com/vug/vugshows.html)

# Meeting Minutes – October 2013 – by Secretary

The meeting was called to order by club President, Jeff DeRoche, at 2:07 PM. There were 30 members and 2 guests in attendance. Jeff welcomed our guests, Linda Rose, who came with Diane Rodenhizer, and Ben Childress. Ben is currently a member of the Mobile Rock & Gem Society and may be moving to the Dothan area. Jeff also recognized all of our members with October birthdays.

**CORRESPONDENCE:** The club received the usual newsletters from other clubs.

**OLD BUSINESS:** The September minutes were approved without changes. Diane presented the treasury report. Jeff checked to make sure that all members receive the October newsletter. We still need a field trip chair to replace Ken Wilson. In the meantime, we will all continue to compile research material on places to dig until new officers are elected for 2014. Jeff brought the club's DVD library and encouraged everyone to see what titles were available and to sign some programs out to view at home.

**NEW BUSINESS:** Jeff and Arnie Lambert are still looking for alternative places to hold the show that will allow us to lock in the dates early enough to do advanced advertizing from year to year.

**SHOW & TELL:** Arnie brought some very nice cabs he made and showed us some of the slabs he cut the cabs from. Joe Cody showed us some arrowheads that came from a creek in Geneva County, a fossilized vertebra from Texas, and some fossilized shells. Diane brought some volcano bombs and iridescent olivine she got on her trip to Australia. L.J. Ward brought some petrified wood and blue seam agate he collected on the Tombigbee waterway. He said the best places to look are where the dredgers dump. He also brought a turtle shell he found and painted.

Grady Dunn displayed some fabulous pieces of agatized coral he collected from the Withlacoochee River in Florida. He also brought some agatized algae he collected near Valdosta. Joan Blackwell displayed some pieces of quartz riddled with garnets and mica that she found in North Carolina. Her cousin lucked out and found aquamarine and amazonite during their digs. Elliott Whitton gave us information on a class about fossils he attended that was presented by the Alabama State Geological Survey.

For those of us who didn't know, The Geological Survey of Alabama (GSA), established in 1848, provides service and information to Alabama and its citizens as a natural resource data gathering and research agency. As part of its mission, GSA explores and evaluates the mineral, water, energy, biological, and other natural resources of the State of Alabama and conducts basic and applied research in these fields. Check out their website when you have time: <http://www.gsa.state.al.us/index.aspx>

**PROGRAM:** No program was presented. We hung out and socialized while enjoying refreshments graciously provided by The Merino Family. Joan Blackwell brought a stash of quartz and garnet specimens she collected while rock hounding in North Carolina with her cousin and offered the pieces up for grabs to fellow club members. I got a very nice piece for display. Thanks Joan. Door prizes went to Barbara Meredith, William Merino, Ginger Merino, Ben Childress, Elliott Whitton, Abbey Pollan, L.J. Ward and Joan Blackwell.

Respectfully submitted by Pat Leduc

## **Alabama Physiographic Provinces – Part 3**

### **The Cumberland Plateau Province**

The Cumberland Plateau of north Alabama is an upland region that lies mainly south and east of the Highland Rim Province and northwest of the Valley and Ridge. It is best known for its coal mining, but it also contains some of Alabama's most scenic and unspoiled natural areas.

Along its northern edge near the Tennessee River, the Cumberland Plateau rises 500 feet or more above the level of the Highland Rim off to the west. A steep **escarpment** (a slope with a rapid change in elevation) separates the Plateau from the softer rocks that border the Tennessee River on either side. In most places the Cumberlands are capped by thick layers of highly resistant sandstone that have allowed them to withstand the ravages of time better than the soft limestone beneath the valley floors.

The central and southern portion of the Cumberland Plateau is known for an industry directly tied to geology—coal mining. Coal from the region northeast of Birmingham, near Jasper in Walker County, and from the Cahaba River valley supplied most of the fuel that brought Alabama its first industrial boom late in the 1800s with the birth of the steel industry. Even today coal from this area provides the energy used to generate most of the state's electrical power. The coal mined today primarily comes from surface mines, commonly called "**strip mines.**"

The rocks in the Cumberland Plateau are a mixed assortment of sedimentary rock types deposited during the part of Earth history known as the Coal Age, or Pennsylvanian Period. During this time just over 300 million years ago, this part of Alabama was a broad coastal lowland that was being buried under sheets of sediment eroding from new mountains that were beginning to be pushed up to the east by tectonic forces. These mountains were uplifted as part of the first major pulse of Appalachian mountain-building in Alabama. Layers of sandstone and shale were spread across the swampy lowlands that lay to the northwest. The coal mined today comes from the remains of forests of primitive plants that thrived in swampy, river flood plains and coastal marshes. These Coal Age rocks are different from the older rocks beneath them, in that they were deposited mostly in terrestrial (land) and fresh water settings rather than in ocean waters.

Most of the Cumberland Plateau is underlain by sedimentary rock layers that sit more or less horizontally, making ridge tops appear almost flat when viewed from a distance. At its western border where the rocks of the Cumberland Plateau dip beneath much younger strata of the Upper Coastal Plain, the topography is much less rugged.

The transition between these two provinces is barely noticeable near the city of Tuscaloosa. The Plateau's coal-bearing rocks dip gently beneath a Coastal Plain cover of dinosaur-age sand and gravel.

### **The Alabama's Upper Coastal Plain Province**

Based on important differences in geological age, Alabama's Gulf Coastal Plain is sometimes divided into two sections—the Upper and the Lower Coastal Plain Provinces. The Upper Coastal Plain Province lies along and immediately south of the Fall Line. It is underlain by sedimentary strata that were spread along the northern margin of the Gulf of Mexico during the last part of the Mesozoic Era, also known as the Age of Dinosaurs. Major urban centers located in the Upper Coastal Plain Province include the cities of Montgomery, Selma, and Tuscaloosa.

In the heavily-forested northern portion of Alabama's Upper Coastal Plain, soils here are mostly derived from deep sands and clays. The southern half of the Upper Coastal Plain contains the Black Belt, a grassland area so different from the surrounding forests that it can be easily seen from outer space. The Black Belt is underlain by chalky rocks, which produce the rich, dark top soil from which the region gets its name. The weathering of chalk and the buildup of organic material from many generations of prairie grasses has created a black topsoil similar to that found in the Midwestern prairies. Much of this naturally fertile soil has been eroded down to its unweathered chalk bedrock.

### **The Lower Coastal Plain Province**

The Lower Coastal Plain occupies a broad, curving swath across the southern part of the state, extending down almost to the coast. The region is built upon a thick series of mixed marine sediments that dip gently downward toward the Gulf. These sediments—generally too poorly lithified to be considered rocks in the usual sense of the term—were deposited along Alabama's Gulf of Mexico shoreline during the Cenozoic Era, the period following the extinction of the dinosaurs. The deposition of these younger sedimentary layers extended the state's land area southward more than a hundred miles onto what was once the shallow continental shelf of the Gulf of Mexico.

The Lower Coastal Plain, though generally level, has several sets of low hills underlain by more resistant sandstone and limestone. Most of the soils of the Lower Coastal Plain are derived from marine sands and clays. Except for Dothan in southeast Alabama, there are no large cities located in the Lower Coastal Plain. In addition to the Chattahoochee River on the state's eastern border with Georgia, two smaller rivers drain the Lower Coastal Plain. The Choctawhatchee and the Conecuh Rivers are the primary stream drainages for much of the south-central part of the state.

## Alabama's Coastal Region

Alabama's Gulf of Mexico beaches, the Mobile-Tensaw Delta and the marshy lowlands along Mobile Bay are often considered to be a distinct physiographic province. This area is young land, geologically speaking, that is still undergoing fairly rapid change. Sediment supplied by the large river systems entering the Gulf here continues to build the Mobile Delta as it has for thousands of years. Storms at sea, tidal fluctuations, and longshore currents have sculpted this important **estuary**—a biologically rich area where fresh and salt water intermix into a landscape of barrier islands, shallow bays, mud flats, and salt marshes.

The marshy portion of the Mobile Delta that lies north of the Interstate 10 bridge and causeway is an important nursery for seafood species such as shrimp, crabs, oysters, and fish. The Mobile Delta begins north of the Bay's salty waters where the Tombigbee River begins to spread out into a complex of sluggish channels that include the Mobile River, which follows the western margin of the delta, the Tensaw, which diverges toward the eastern Bay, and many smaller channels that lie between. The tidal fluctuation of Mobile Bay extends many miles up this vast wetlands, even to the confluence (point of joining) the Alabama and Tombigbee Rivers.

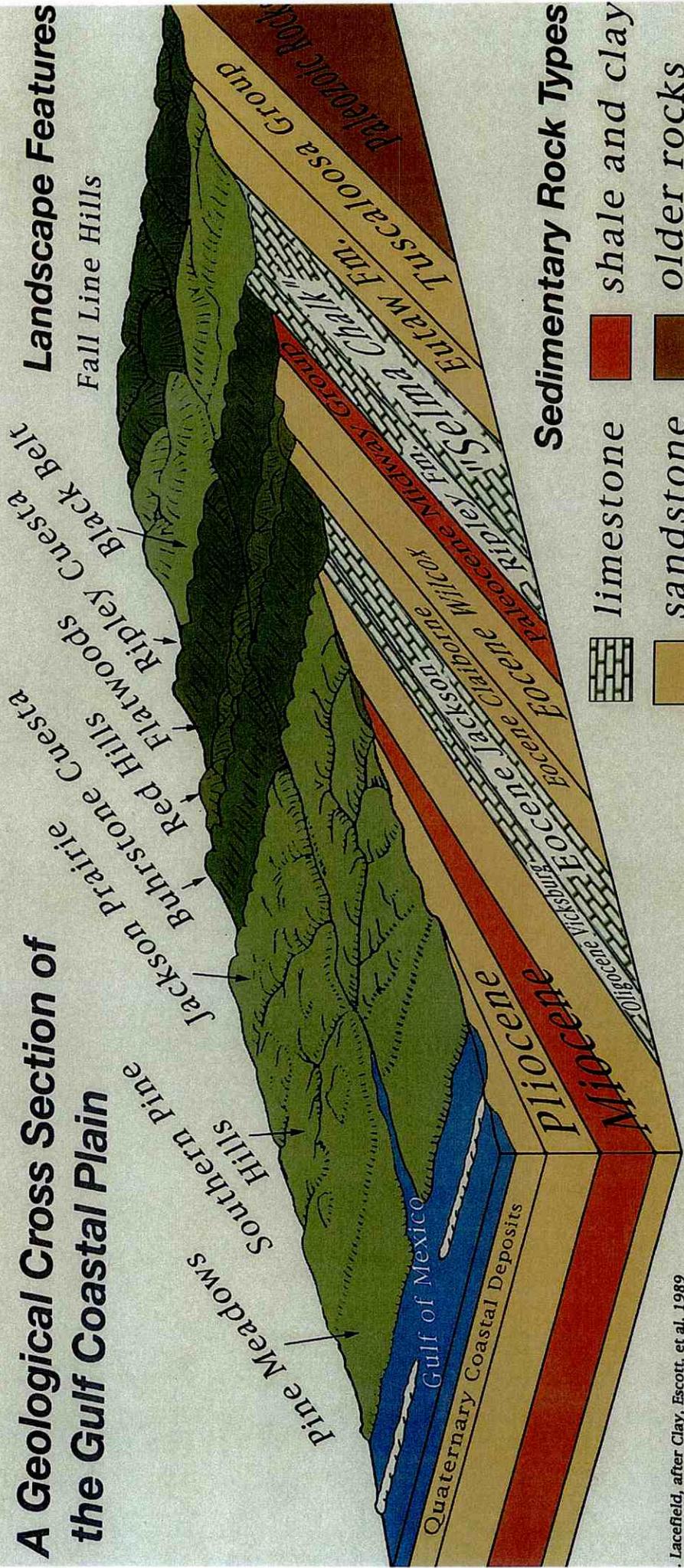
Barrier islands such as Dauphin Island and the beach fronts at Gulf Shores and Orange Beach are, at best, only transitional and temporary features dependent on changing sets of environmental and oceanographic conditions. Even minor coastal storms can bring about major changes in the shape of the coast line in these areas overnight. When viewed from a perspective of geological time, the superior forces of time and tide will ultimately decide the shape of this part of Alabama, rather than the land developers and coastal engineers who attempt to maintain it in its present form.

(Note: See following page for a pictorial representation of the Geological Cross Section of the Gulf Coastal Plain.)

**Source:** Reprinted with permission from educator and club member, Elliott A. Whitton, who researched and prepared (July 2013) this condensed version of material presented in Jim Lacefield's publication, Lost Worlds in Alabama Rocks.

**Editor's Note:** This article has been divided into three parts due to limited newsletter space. This is Part 3. Parts 1 and 2 appeared in the September 2013 and October 2013 editions of the *Rockhounds Herald*, respectively.

# A Geological Cross Section of the Gulf Coastal Plain



Lacefield, after Clay, Escott, et al, 1989

# Club Meeting – October 2013

Photos by Pat



Large gathering of regulars with a couple of new faces... short business meeting followed by lots of stellar specimens for Show & Tell... and a delicious array of food that was as beautiful as it was tasty. What a fine way to spend an afternoon!!!



# Club Meeting – October 2013

Photos by Pat



**Great fellowship and food...**



**...and just look at the variety of natural treasures we had an opportunity to see!**





# Just the Mineral Facts

## HEADS

You find a piece of hematite. What color is its streak?

Blood-red

## TAILS

What mineral is number 8 on the hardness scale?

Topaz

## HEADS

Blue corundum is also known by what name?

Sapphire

## TAILS

What mineral is used to make Plaster of Paris?

Gypsum

## Mineralogist-o-Meter

5-7 Correct  
Expert

2-4 Correct  
Very Good

1-2 Correct  
Beginner

## TAILS

The name of which mineral comes from the Greek word for fire?

Pyrite

## HEADS

Heliodor is the yellow variety of which mineral?

Beryl

## TAILS

Yellow or brown quartz is called what?

Citrine

## HEADS

How many different minerals are in the hardness scale?

10

## TAILS

Mica breaks neatly into very thin sheets. This is a physical property known as what?

Cleavage

## HEADS

Hexagonal, Isometric, Trigonal, Monoclinic. What are these?

Crystal Systems

## TAILS

What is the luster of gold, silver, copper, platinum and mercury?

Metallic

## HEADS

What is the luster of quartz, topaz, tourmaline and garnet?

Glassy (Vitreous)

## TAILS

What is the special physical property of lodestone and magnetite?

They are Magnetic

## HEADS

What kind of fracture does quartz have?

Shell-like (Conchoidal)

## How to Play

- ◇ First cut out cards and fold on red lines.
- ◇ Place them on the table or floor so you can only see "Heads" or "Tails" (so you don't see the answers!).
- ◇ Flip a coin to see who goes first.
- ◇ Now flip the coin to see which question to ask (Heads or Tails).
- ◇ You get 1 point for each correct answer.
- ◇ Check the "Mineralogist-o-Meter" to see what kind of mineral collector you are.

Create Your Own Mineral Facts Game

# Just the Mineral Facts

**HEADS**

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**TAILS**

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**HEADS**

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**TAILS**

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**Mineralogist-  
o-Meter**

**5-7 Correct  
Expert**

**2-4 Correct  
Very Good**

**1-2 Correct  
Beginner**

**TAILS**

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**HEADS**

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**Use this master page to create your own game.** Cut out the Heads and Tails rectangles and write your own questions and answers on them. Then follow the playing instructions on the completed game on the previous page. Challenge your family, friends, club members and even your teacher!

# Who What Where When Why How

## November Birthdays

**NOV 2 – Elizabeth Ramos**

**NOV 4 – Patti Wilson**

**NOV 9 – Janie Schings**

**NOV 16 – James Clay**

**NOV 19 – Ken Wilson**

**NOV 22 – Brooke Brown**

## Random Rock Facts

The tendency to resist breaking and chipping is known as a gem's toughness and is due primarily to two factors: readiness of the material to cleave in single crystal gems, and the presence of certain structural traits in aggregate and amorphous gems which promote cohesion. All other factors being equal, the harder the gem the tougher it will be, but other factors are not always equal.

For example, topaz has a hardness of 8.0 on the Mohs scale, making it a very hard gem. However, if we consider its strong tendency to cleave in one direction, it is rather fragile.

Yellow topaz is a member of the orthorhombic crystal system and one of two modern birthstones for November (the other is Citrine).

Source: <http://www.bwsmigel.info/Lesson3/DEPhysical.Properties.html>

## Meeting Information

**Time:** 2:00 PM

**Date:** Fourth Sunday of each month (except June, July and August)

**Place:** Fellowship Hall – Tabernacle United Methodist Church  
4205 S. Brannon Stand Road  
Dothan, AL

## Officers

**President – Jeff DeRoche**  
334-673-3554

**Vice President – Anne Trice**  
334-718-4838

**Secretary – Pat LeDuc**  
334-806-5626

**Treasurer – Diane Rodenhizer**  
334-447-3610

**Bulletin Editor – Joan Blackwell**  
334-503-0308  
Tfavorite7@aol.com

**Webmaster – Pat LeDuc**  
334-806-5626

**Membership Chair – Diane Rodenhizer**  
334-447-3610

**Show Chair – Arnie Lambert**  
334-792-7116

**Field Trips Chair – vacant**

**Hospitality Chair – JoAn Lambert**  
334-792-7116

**Club Hostess – Laural Meints**  
334-723-2695

**Website:** [www.wiregrassrockhounds.com](http://www.wiregrassrockhounds.com)

## Objectives

To stimulate interest in lapidary, earth science and, when necessary, other related fields.

To sponsor an educational program within the membership to increase the knowledge of its members in the properties, identifications and evaluations of rocks, minerals, fossils and other related subjects.

To cooperate and aid in the solution of its members' problems encountered in the Club's objectives.

To cooperate with other mineralogical and geological clubs and societies.

To arrange and conduct field trips to facilitate the collection of minerals.

To provide opportunity for exchange and exhibition of specimens and materials.

To conduct its affairs without profit and to refrain from using its assets for pecuniary benefit of any individual or group.

## Classified Ads

**Looking for an item to round out your rock collection?**

**Got a specimen, tool or handicraft for sale or trade?**

**Submit the pertinent details to me by the 10<sup>th</sup> of each month and your inclinations will be made known to the membership in the next bulletin.**

**N. J. Blackwell**  
28 Lakeview Trail, Apt. C  
Daleville, AL 36322  
Phone: 334-503-0308  
Email: Tfavorite7@aol.com

## Annual Dues

Single \$15  
Family \$20

## Refreshments

**NOV 24 – Pat LeDuc & Joan Blackwell**

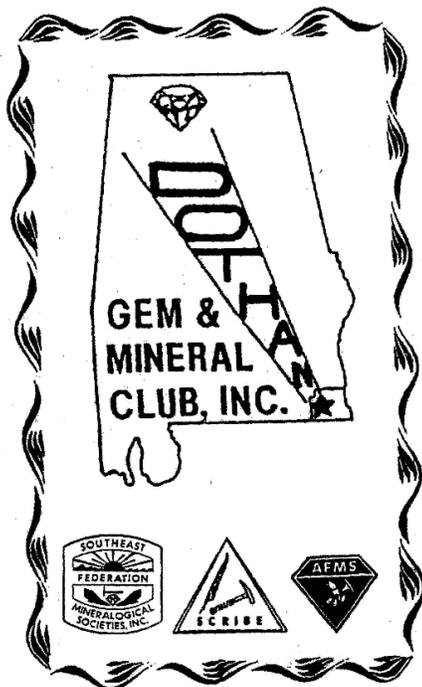
**DEC ?? – Pot Luck Christmas Party**

**JAN 26 – Margie & Joe Cody**

# ROCKHOUNDS HERALD

Editor – N. J. Blackwell  
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Daleville, AL 36322

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## Where you might hear...

*Dealers who supply facetors with gem rough may sometimes tumble it first.*

Gem rough that comes from primary, or eluvial, sources may have internal fractures, partial cleavages, or ungainly shapes.

Tumbling the rough simulates what happens as weathered-out gems travel down streambeds, breaking off weak areas and wearing away protrusions.

The tumbled rough is more desirable to the facator as it is cleaner, and better shaped for good recovery; so they will pay more for it.

Source: <http://www.bwsmigel.info/Lesson10/DE.Gem.Formation.html>

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**Southeast Federation of Mineralogical Societies, Inc.**  
**American Federation of Mineralogical Societies**