



HAPPY BIRTHDAY

Jon Amacher February 02

Jim Maudsley February 11

Drew Richardson February 14

Walt Sikora February 20

Kelsey Richardson February 25

Please Bring Your Stamps!

Ruth Long, our Stamp Chairperson, sends out a reminder to all members to bring stamps that have been collected for the scholarship fund.

Tips:

Oxalic Acid

Spic and Span has oxalic acid in it. It is excellent source for the final polish of tumbled stones. Use one cup of Spic and Span for each six pounds of stones. (Not suggested for calcite-based stones or other soft stones. Test on your stones before using.)

Source: *Chips and Splinters* website: www.sarmclub.com. Via *The Pegmatite* November 2009 Via *The Mountain Gem* Dec 2009

More Comfortable Cab Cutting— Is the edge of your cab machine water trough sharp? When you're cutting a cab, does the edge dig into your wrist or arm? Here's an easy and inexpensive solution to end your discomfort. Get a piece of foam pipe insulation from the hardware store and place a piece of it over the edge of the trough. Voila, no more discomfort! And, you can easily remove the foam when you go to empty or clean the trough. --from *Gem Cutters News* June, 2009 via *The Rock Collector* Dec. 2009 Via *The Hounds Howl*

Working with Dark Colored Moss Agate—like the black Montana variety, small pits may sometimes appear on the finished, polished surface. The light-colored polishing powders, such as tin oxide or cerium oxide, often pack into these small pits, making removal difficult and white spots surely distract from the stone's appearance. Try rubbing a small bit of black India ink into the spotted area, and then try to rub off the ink. The white spots will disappear. --from *Rockhound Rambling* Sept. 2008 via *Rock Collector* Dec. 2009 Via *The Hounds Howl*



THE MINERAL TANTALITE

Chemical Formula: $(\text{Fe, Mn})(\text{Ta, Nb})_2\text{O}_6$, Iron Manganese Tantalum Niobium Oxide.

Class: Oxides and Hydroxides

Uses: An ore of tantalum and niobium and as mineral specimens.

Tantalite is the most widespread tantalum mineral and makes for an important ore of the industrially useful metal. Tantalum is used in alloys for strength and higher melting points, in glass to increase the index of refraction, and in surgical steel, as it is non-reactive and non-irritating to body tissues.

Tantalite forms a series with the mineral columbite. In fact the two are often grouped together as a semi-singular mineral called columbite-tantalite in many mineral guides. A series is where two or more elements can occupy the same places within a crystal structure and their respective percentages can then vary. The two minerals of this series have similar properties since they have the same structure and similar chemistries (tantalum and niobium are very similar elements). Tantalite is the more tantalum rich end member and columbite is the more niobium rich end member. Niobium had been called columbium hence the name columbite.

Tantalite's greatest difference from columbite is its much greater specific gravity, 8.0+ compared to columbite's 5.2. Other properties that vary slightly are color, transparency and streak. Both minerals can be found more or less together in granitic pegmatites rich in lithium and phosphorus minerals with columbite concentrated at the edges of the pegmatite and tantalite enriched in the core.

Tantalite has a series of its own. The iron and manganese amounts vary considerably without much effect on properties. However the two end members are recognized as distinct minerals although collectors have found this to be rather cumbersome and generally prefer tantalite to the non-unique names of ferrotantalite and manganotantalite.

Tantalite has a dimorphic relationship to another mineral called tapiolite. A dimorph is a mineral that has the same chemistry but a different structure. Tapiolite has a tetragonal structure as opposed to the orthorhombic structure of tantalite although it has exactly the same chemistry, $(\text{Fe, Mn})(\text{Ta, Nb})_2\text{O}_6$.

As mineral specimens, tantalite can be a nice addition to one's collection. Good crystals are both complex and handsome. Although the color selection is usually limited too black to brown the luster is generally good. Manganese rich tantalites can be brown and translucent.

PHYSICAL CHARACTERISTICS:

Color is dark black, iron-black to dark brown or even reddish brown.

Luster is submetallic to almost resinous.

Transparency: Crystals are nearly opaque being transparent in thin splinters.

Crystal System is orthorhombic; $2/m\ 2/m\ 2/m$

Crystal Habits include stubby prismatic crystals with complexly faceted or rounded terminations. Also very flat tabular crystals sometimes aggregated together in parallel or nearly parallel groups. Can also be granular and massive.

Cleavage is good in one direction.

Fracture is subconchoidal.

Hardness is 6 - 6.5

Specific Gravity is approximately 8.0+ when pure (very heavy for non-metallic minerals).

Streak is brownish-red to black.

Other Characteristics: Some specimens may show a bluish iridescent tarnish and demonstrate weak magnetism.

Associated Minerals include albite, spodumene, cassiterite, microcline, lepidolite, apatite, beryl, microlite, tourmalines and amblygonite.

Notable Occurrences include Newry, Maine; San Diego Co., California; Colorado and Amelia, Virginia, USA; Renfrow County, Ontario, Canada; Madagascar; Sweden; Norway and Finland.

Best Field Indicators are crystal habit, streak, associations and specific gravity.

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ROCK, GEM, AND MINERAL SHOWS



February 12-14, 2010: Merritt Island, FL - Central Brevard Rock & Gem Club. 33rd Annual Symphony of Gemstones Show, Kiwanis Island Park, 950 Kiwanis Park Road, SR 520. Hours: Feb 12, 1- 6; Feb 13 & 14, 10 - 5. Rough and cut gems, minerals, fine jewelry, equipment, supplies, books, beads, exhibits, & demonstrations. For info call 453-6379

February 19-21, 2010: Vero Beach, FL - Treasure Coast Rock & Gem Society. Annual Gem & Jewelry Show, Vero Beach Community Center, 14th Ave & 23rd Street. Hours: Feb 19, 12 - 5; Feb 20, 10 - 5; Feb 21, 10 - 4

February 27, 2010: Bartow, FL - Imperial Bone Valley Gem, Mineral, & Fossil Society. 6th Annual Gem, Mineral & Fossil Show, The Stuart Conference Center, 1710 US Highway 17 - 98 South. Hours: 10 - 5. Contact Jim Reed at (863) 644-6665.

March 5-7, 2010: Pinellas, FL - Suncoast Gem & Mineral Society. 40th Annual Gem, Mineral, & Jewelry Show and Sale, Minnreg Building, 6340 126th Avenue North, Largo, Florida. Hours: Mar 5, 10-6; Mar 6, 10-6, Mar 7, 10-5. Exhibits by club members and demonstrations of lapidary techniques. Grab Bags, Door Prizes and Grand Door Prizes, Drawings, Minerals and Gems. Mineral specimens, crystals, fine jewelry, opals, rough material, cabochons, fossils, agatized coral, beads, wire-wrapped jewelry, stained glass, food. For info contact Bill Schmidt (727) 657-0998.

March 12-14, 2010: Augusta, GA - Aiken Gem, Mineral, & Fossil Society and Augusta Gem & Mineral Society. 22nd Annual Gem, Mineral & Fossil Show, Julian Smith Casino, 2200 Broad Street. Hours: Fri & Sat 10-7, Sun 10-4. Admission \$3 for adults; children under 16 free with an adult. For info see www.aikengmfs.org or www.augustagemandmineralsociety.org

March 19-21, 2010: Rome, Georgia—Rome Georgia Mineral Society. 32nd. Annual Valley and Ridge Gem and Mineral Show, The Forum, 2 Government Plaza (one block from Broad St at the end of 3rd Ave in downtown Rome). Hours: Fri & Sat 10-6 and Sun 11-5). Fee parking & admission. Contact Tim Biggart at (706) 232-7143 or tbiggart@berry.edu

April 17—18, 2010: Dothan, Alabama—Dothan Gem & Mineral Club. 3rd Annual Gem & Mineral Show, Westgate Park (James Grant Rec center, 501 Recreation Road. Free parking & admission. Hours: Sat 9-5 & Sun 10-4. Contact Arnie Lambert (334) 792-7116 or arlambert@comcast.net

April 24-25, 2010: Memphis, Tennessee—Memphis Archaeological and Geological Society. Memphis Mineral, Fossil, Jewelry Show, Memphis International Agricenter, Expo Center, West Pavilion & A-wing 7777 Walnut Grove Rd. Adults \$5.00, Children 12 and under \$2.00. Scouts free. Contact W.C. McDaniel (901) 274-7706.

May 7-9, 2010: Marietta, GA - The Georgia Mineral Society. 42nd Annual Gem, Mineral, Jewelry, & Fossil Show, The Cobb County Civic Center, 548 S. Marietta Parkway & Fairground Street. Hours: Fri & Sat 10 - 6, Sun 12 - 5, Auctions Sat 1pm. Contact Kim Cochran (770) 979-8331 or mayshow@gaminerall.org

GENERAL INFORMATION

The Athens Rock and Gem Club is a non-profit organization. Its objective and purpose is "to promote the recreational, educational, and scientific aspects of lapidary arts, rock and mineral collecting, and earth sciences, for adults and children".

Meetings are usually the third Tuesday of the month, excluding July and August. Locations of the December (Christmas party) and June (picnic) meetings are announced.

Meetings are held in a room at the rear of the Friendship Christian Church, located at 285 Tallassee Road, Athens. The church is located about 0.6 miles northwest of the Athens by-pass, on the left side of Tallassee Road. The business part of the meeting starts at 7:30 p.m. The educational program begins at about 8:00 p.m. Members are encouraged to attend the business meeting, but some may prefer to attend only the educational program.

Annual dues are \$15.00 (single adult) and \$17.50 (family of two); \$20.00 (family of three or more). Dues are due by the October meeting of each year. Checks should be made out to the Athens Rock and Gem Club and sent to the Treasurer. If a family membership, provide the names of all individuals in the family who will take part in any club activities.

THE ATHENS ROCK AND GEM CLUB MEMBERSHIP APPLICATION

Date: _____

Name: _____

Spouse's name: _____

Address: _____

Children's names: _____

Ages, Schools: _____

Home Phone: _____ Work Phone: _____

Email Addresses: _____

Occupations, hobbies, interests: _____

Birthdays/ Anniversary (optional) _____

Annual Dues: Single - \$15.00 Family of Two - \$17.50 Family greater than Two - \$20.00

Renewal Dues Single - \$15.00 Family of Two - \$17.50 Family greater than Two - \$20.00

Make check payable to: Athens Rock and Gem Club

Send to: Kodi Book, Treasurer, ARGC, 13 Penny Lane, Lexington, GA 30648

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