

Mineralogical Society of the District of Columbia

MINERAL MINUTES



Vol. 69, No. 6

Founded 1942

June 2010

Club Meeting: Wednesday, June 2, 7:45 PM

The regular monthly meeting of the MSDC will take place as noted above. We meet at 7:45 PM in the lobby of the Smithsonian Natural History Museum. **REMEMBER - We are taking our summer break so there will be no meetings in July and August.**

Program and Speaker: Our own members **Eric Grundel and Tom Tucker** will be speaking on collecting minerals in the Davis Mountains of western Texas. The road cuts on the Scenic Loop, which cuts through the heart of the Davis Mountains, contain many interesting minerals, mostly micros. This part of Texas is geologically very different from most of the state. The rocks here are Tertiary Age igneous rocks while most of the state is sedimentary. There has been a lot of geological research done here but no mineralogical investigations. Eric and Tom have found things like cryptomelane, scepter quartz, feldspar and zircon, all in well developed microcrystals. They think there is a lot more to be found but access to the land is an obstacle. This area is so interesting that Eric presented a paper April 16, 2010 in the Technical Session of the Rochester Mineralogical Symposium. The abstract of that presentation follows:

- Abstract of Presentation: **MICROMINERALS FROM THE SCENIC LOOP ROAD CUTS IN JEFF DAVIS COUNTY, TEXAS** – A project of the Micromineralogists of the National Capital Area

The Trans-Pecos Region (TPR) of West Texas is an area of thousands of square miles of generally well exposed rocks, many of them igneous. The Tertiary Age igneous geology of this region, which includes

the Big Bend (BB), has been much studied. Except for the mining districts of the BB, little attention has been paid by either amateurs or professionals to the TPR's mineralogy. Despite its large area and diverse geology, both published and unpublished lists of Texas mineral localities mention relatively few specimen-producing sites in the counties of the TPR. The land in this region consists of large private ranches and public parks. The lack of information on the mineralogy of the region can therefore be explained in part because these areas are off limits to collecting.

Exceptions to this are the many miles of road cuts to be found in the region. A particularly fruitful area is on and around the Scenic Loop through the heart of the picturesque Davis Mountains in Jeff Davis County. Here basalt, rhyolite, trachyte and other unidentified igneous rocks both *in situ* and as float have been cut through by highways 17, 118 and 166. The formations in the road cuts vary from sparsely to extremely vuggy. Crystals, primarily micro size, are found in many of the vugs. Only a few of the crystallized minerals found to date have been identified. The minerals, some of which are reported here for the first time, include calcite, chalcedony (both primary and as pseudomorphs, some of which fluoresce), exceptionally fine cryptomelane, feldspar group (probably microcline), magnetite, quartz (some as scepters) and zircon.

The results of this limited sampling gives rise to the belief that there probably are many more specimen – producing sites in the areas that are currently inaccessible, especially the well exposed peaks of the Davis Mountains.

Place: The National Museum of Natural History, Smithsonian Institution, 10th Street and Constitution Ave, Washington D.C. We will gather at the Constitution Avenue entrance at 7:45 PM to meet our guard who will escort us to the Cathy Kirby room. If you park on the street, **THERE ARE NOW PARKING FEES, PAYABLE AT THE KIOSKS, AND ENFORCEMENT UNTIL 10 PM.**

Dinner: Some of us will meet for dinner at the Pier 7 Restaurant at 6:00 PM for dinner before the club meeting. Give President Andy a call at (301) 270-6790 so he can make reservations if you wish to attend.

The Prez Says - A Word From the President
- Andy Thompson

Enjoying Earth's Unique Geology?

Rockhounds from Montana, to West Texas and on to northern New Jersey have reason to feel privileged to live so close to abundant mineral mines. But here in the nation's capital, we enjoy another type of mineral wealth that worth celebrating. We all know and love our Smithsonian Institution, specifically our Museum of Natural History and its knowledgeable staff. But the DC area had an abundance of additional geological brain trusts, one of which I tapped into recently. Dr. Robert M. Hazen gave a lecture at his home base, the Carnegie Institution for Science (www.ciw.edu), entitled "From the Big Bang to Broadway: How Things Evolve." The content of his talk would ring many bells for our club members because last year, MSDC had the pleasure of hearing Dr. Dominic Papineau speak on a similar topic. If you attended that latter talk, you'll recall his recounting how he and colleagues, one of which being Dr. Hazen, were seeking the relationship between iron oxides and the origin and evolution of life.

Dr. Hazen presented a big picture view in which he explained a ground-breaking vision for how minerals may have evolved in our planetary system. Simply put, the line of thinking is as follows. As our solar system took shape in the initial billion or so years of its existence, the planets were composed of accumulated star dust and the content was probably made of about 60 basic minerals. But with subsequent volcanic activity, plate tectonic shifts and

high amounts of water being released into the atmosphere, Hazen and his team believed that oxidation gave rise to several hundred new mineral species, all of which probably appeared on the surface of earth, Mars and Venus.

The breakthrough, however, comes with the unique presence of biological life growing on earth and a very substantial rise in the level of oxygen in the atmosphere. This development, the researchers claim, resulted in and mediated the "evolution" of thousands of new minerals, as much as two thirds of today's 4,300 minerals. This took place, they speculate, about four billion years ago. Nowhere else in our solar system, they believe, did this evolution take place because no other planets experienced this abundance of biologically based oxygen. On earth, photosynthesis generated the oxygen and that accelerated the evolution of mineral clays, calcite (CaCO₃) and shell life which deposited as the fossilized remains on earth's ocean floors.

Simply put, the minerals of earth co-evolved with biological evolution, a view which today promises to revolutionize how we understand minerals. For further information, see American Mineralogist, 2008, www.sciencedaily.com or Hazen's most recent book, Genesis.

Most of us living in the DC area want to enjoy the best of both worlds the benefits of hands-on field collecting, as well as of hearing the explanations of how geologists understand how these minerals came to be as we find them. If your schedule allows, join us this coming Wednesday evening, 2 June, to share in the joys of collecting as well as explanations from two of our finest member-researchers, Tom Tucker and Erich Grundel. They will report on their mineral explorations in West Texas in the Davis mining region. I hope to see you there and by all means, bring any of your specimens you might like to show us.

MSDC Meeting Minutes -May 5, 2010
- Andy Thompson (acting on behalf of Secretary Betty Thompson)

Our May meeting began with welcoming former club presidents and new members and several guests. In

recent months, MSDC has had an increase in new members, including Ms. Pat Rehill, Sheryl Sims, Mark Dahlman and Andy Muir.

The attendees approved the minutes of the April meeting which appeared in the May Mineral Minutes. Treasurer Rick Reiber reported on the club's finances and that there had been no recent extraordinary expenditures or incomes.

Vice President for Programs, Tom Tucker, described upcoming programs which include our June 2 program in which he and Erich Grundel will tell of their collecting field trip to the West Texas Davis mine (see elsewhere for a fuller description of this program). Also, when the ownership legal issues are resolved, we will have a program on the Springfield VA meteorite, then on Frank Hisson's South Africa tour and a presentation by Dr. Mike Wise, among others. Our June 2nd meeting will be our last gathering until September 1st meeting. Most clubs suspend meetings in favor of summer field trips.

By way of MSDC's "old business", attendees discussed how Casper Voogt has updated our website (www.mineralogicalsocietyofDC.org) and that the expansion of our archived editions of Mineral Minutes and other features await further training and implementation by a webmaster. Andy welcomed any member who wants to volunteer to receive training in this task and who is willing to handle the regular monthly updates. Life at Chateau Thompson these recent months has prevented them from completing this task. Please get in touch with Andy and Casper will provide the necessary training.

With regard to the editorship of our *Mineral Minutes* newsletter, Andy Thompson thanked Susan Fisher who has been doing an extraordinarily professional job of publishing our monthly news. However, this has been a temporary job which has lasted since Georgia Olmstead moved to Colorado. Now, Mary Bateman, who has been unwinding many forms of her national service through leadership roles in the Eastern Federation of Mineral and Lapidary Societies, has agreed to take over the editorial reins. Beginning with the September edition, she will become MSDC's new Mineral Minutes editor. Andy reminded attendees of Susan's request that MSDC members seriously consider contributing to our publication by writing articles about their field trips,

favorite minerals or any other topic of interest. And please honor Susan and support Mary in her editorship by actively considering writing and submitting articles, whether brief or long.

With regard to our upcoming MSDC field trip to Yellow Stone with Dr. Richard Tollo, July 5-11, Andy reminded everyone that Mary Bateman is coordinating this journey. So contact her or Andy (thompson01 at erols dot com if you plan to participate.

Stanley Mordensky, the 2010 recipient of our annual Foshag-Hronik-Dhyse award, wrote an appreciative note of thanks to MSDC citing the importance of the grant for his continued geological education and research.

For our "geology in the news," members briefly cited the recent volcanic and earth-quake events.

With no "new business" items to attend to, the attendees called for and received closure on our business meeting.

The drawing of door prizes was especially animated because it was the club's first ever fantasy drawing of mineral items. This was occasioned because Andy had left the items on his computer desk where he researched their chemical composition. The two minerals were white stilbite from Poonah India and black schorl, a type of tourmaline from Pier Point. The actual winners were Mark Dahlman and Rebecca Siegal who subsequently received their minerals via the U.S. Postal Service. This month's drawing continued our MSDC tradition of having a family member or car pool friend draw the actual winning ticket.

Summary of the MSDC May Program - Bob Simonoff Presentation of: "The Minerals of Greenland"

- Reported by Andy Thompson

Ever have the experience of not knowing anything about a particular subject, like Greenland and its minerals, and then hearing a talk about it and suddenly becoming enthusiastic about this new field? That's what it was like for me when I came to the May MSDC presentation by Bob Simonoff.

The first clue that something special was about to happen should have been when I saw so many knowledgeable MSDC members came to the meeting bringing plain-looking rock samples along with black light paraphernalia. What they knew was that "Greenland" equals "fluorescent rocks" and lots of varieties along with included rare earth elements.

Bob opened a window onto a little-known culture which, due to its geographic isolation is economically poor. And, due to that remoteness and government restrictions, Greenland is not friendly toward rock hounds desiring to carry off the national mineral treasures. But Bob, in 2008, became part of an authorized rock hound tour which visited multiple sites, collected beautiful specimens and provided stunning photos of the rugged terrain.

Greenland, a protectorate of Denmark, is economically impoverished, with no cities to speak of, tiny villages with color-coded small buildings but a wealth of fluorescent minerals which is at least on a par with other world-famous sites such as Franklin, NJ. The largest island in the world, it contains sites where the magma filled in between other formations, now having endless exposed rock outcrops, where the chemical mix yields famous minerals such as tugtupite. Tug, as it is known, before 2001, was essentially Greenland's only widely known major fluorescent specimen available. But since then, exploration has found a greater variety of minerals and variations within each group.

Bob visited the area known as Narsaq, the mineral center for Greenland. But it's also noteworthy because of Niels Bohr (1885-1962), the world famous Nobel physicist (1922), who illuminated the structure of the atom. He was also an advisor for the Manhattan project and after WW2, worked extensively for the peaceful use of radioactive materials. He discovered a uranium mine near Narsaq which helped put that village on the tourist map and for which they made him an honorary citizen. Bob showed photos of Bohr's mine site and told of its two meter thick sealed entrance door.

Beyond Narsaq, Bob gave us a tour of other sites in Greenland including: Kvanefjeld which is important for its radioactive minerals; Ilimaussaq with its alkalide formation and abundance of sodalite which typically glows orange; Ilenasse Kobenfeld near the Tasik Mountains, to mention a few.

One of My Favorite Things - The Unexpected **- Susan Fisher**

One of my favorite things related to geology and mineralogy is the potential to find the unexpected almost anywhere. For example, a couple of weeks ago, I had the pleasure of visiting with a mineral dealer I have known for years. This gentleman knows I am a little nutty about fluorite and I had asked him to be on the look-out for any "off the wall" fluorites and other unusual pieces or locations. He certainly came up with some winners. The first unexpected item was a flat transparent floater, contact spinel-law twined fluorite followed by two sky-blue hemispheres of shattuckite (about 0.8 cm each with a terminated 1 cm crystal of malachite sitting with them in a vug in copper stained matrix. This particular dealer was not the only one to have some things that were exciting and unexpected. Over the last year I have acquired several rare minerals, a multi-generation calcite from Bulgaria, and several other things that are just fun to look at because of they are unusual and make me think about the conditions of their formation. All were unexpected surprises.

I am also always amazed at the zeal, dedication and curiosity of mineral, fossil and rock collectors and dealers. The memory of a conversation with a friend on a shared area of interest stays with one. Perhaps it is a shared sense of wonder that makes this hobby so intriguing. There is always the potential for something new to appear in the next vug or in the next audit or over the next hill. This is a treasure hunt where the real treasure is truly in the eye of the beholder. A quartz crystal is a treasure to many six-year-olds while a multi-thousand dollar tourmaline may be a treasure to a more advanced collector. A self-collected fossil shell or shark's tooth is an item that makes a vacation truly memorable for some while a water-polished pebble is a keepsake for others.

This brings me to the point of this rambling chain of thought. It truly isn't the end of the mineral collecting journey - the collection - that makes the trip worthwhile, it is the excitement of the chase and the people you meet along the way. The things one learns and the sense of wonder one experiences is what enriches life. A collection of minerals, fossils, or whatever intrigues one is a pleasant byproduct that

can be shared and passed along to help others on their personal journey.

Life is full of pleasant journeys. I am completing one now as the temporary editor of the *Mineral Minutes*. I want to thank you for this opportunity and all the articles and pictures you have generously shared with me and allowed me to pass on to our friends in MSDC. I especially want to thank Mary Bateman for picking up the task in the fall and I encourage you to help Mary and become even more involved in sharing your thoughts as we all experience the wonders of the world of rocks, minerals, and fossils.

Upcoming Events: Start planning those summer trips now!

June 5: Macungie, PA - Spring Mineralfest sponsored by the Pennsylvania Earth Sciences Association. Macungie Memorial Park Building, Macungie, PA.

June 26-27: State College, PA - **CANCELED!!!** 5th Annual Nittany Gem and Mineral Show sponsored by Nittany Mineralogical Society, Inc., at Mt. Nittany Middle School, 656 Brandywine Drive, State College PA 16801

July 10-11: Bethel, ME - 49th Annual Western Maine Gem, Mineral & Jewelry Show sponsored by the Oxford Co. Mineral & Gem Association. Telstar Regional High School, Bethel, ME. Contact Hugh Chapman 207-836-2987.

July 10-11: Syracuse, NY - 44th Annual GemWorld Show sponsored by the Gem & Mineral Society of Syracuse. NY State Fairgrounds, I-690, Exit 7; Syracuse, NY

July 17-18: Erie, PA - 41st Annual Gem & Mineral Show sponsored by the Gem City Rock Club. JMC Ice Arena, Erie, PA.

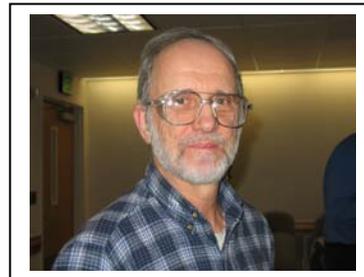
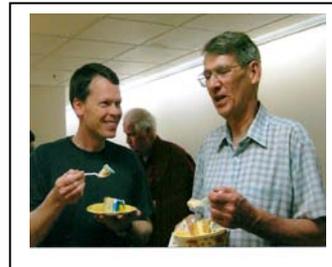
July 17-18: North Conway, NH - Annual Gem & Mineral Show sponsored by the Saco Valley Gem & Mineral Club. North Conway Community Center, North Conway, NH.

August 7-8: Bethesda, MD - 60th Annual Gem & Mineral Show sponsored by the Gem, Lapidary & Mineral Society of Washington, DC. Stone Ridge School, 9101 Rockville Pike, Bethesda, MD.

August 7-8: Waterville, ME - 40th Annual Mid-State Gem & Mineral Show sponsored by the Water-Oak Gem & Mineral Society. Mt. Merici School, Waterville, ME

August 21-22: Lexington, KY - Gemboree 2010 sponsored by the Blue Grass Gem & Mineral Society. Lexington Convention Center, Lexington, KY

Great Pictures from MSDC's Fun Year. Here are some of my favorite pictures from our recent meetings. Come and join us as we have a great time and learn about the wonders of the natural world. (The photos are courtesy of Betty Thompson and Cynthia Payne.)



Remember to bring some of your treasures you collect this summer so that we may see them in September!