
Bay Area Mineralogists

May 2016

Meeting: Wednesday, May 11, 2016; 7 pm
USGS, 345 Middlefield Road, Menlo Park
Building 3, 2nd Floor, Auditorium or Rm 3-237

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BAM web site: www.baymin.org



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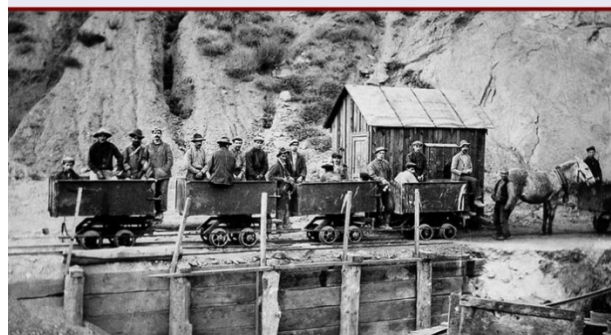
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The Bay Area Mineralogists meet monthly during the school year, on the 2nd Wednesday. We meet at the U.S. Geological Survey in Menlo Park, on the second floor of Building 3, where the campus map says "Rambo Auditorium." (<http://online.wr.usgs.gov/calendar/map.html>) The front doors will be locked so you'll have to come up the stairs on the Middlefield Road side of the building. Parking is free.

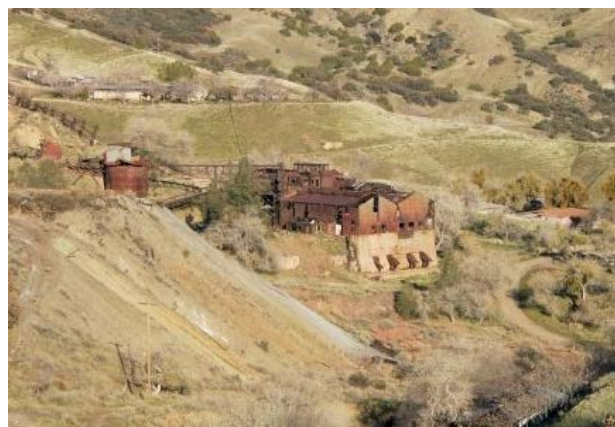
May Program

New Idria, by Gary Parsons

This month's program will be given by one of our members, Gary Parsons. He will give a PowerPoint presentation about the second largest Mercury producer in the state of California, and possibly the nation. The title of his presentation will be: **NEW IDRIA QUICKSILVER, Mine, Mill, and Town**. It will cover the ghost town of New Idria, its associated Cinnabar mines, and processing mill. The presentation will include a brief introduction to the area's ecology, geology, history, and some uses of Mercury. The talk was enhanced with contributions from a number of New Idria experts (*Mark Ward - New Idria's Geologist & Mine Manager, and Ray Iddings - Author, Historian, Archaeologist, & CEO of Three Rocks Research*).



The cover of Iddings' book



Rotary furnace building at New Idria site.

Summer Field Trip Update

We are sorry to announce the cancellation of the proposed BAM field trip to Michigan's Upper Peninsula (UP) and vicinity this year. John Magnasco has been diligently researching this trip, and has concluded that the logistics and projected costs would be prohibitive.

If you want to visit Michigan's Copper Country on your own, we recommend attending the annual Keweenaw Mineral Days hosted by A.E. Seaman Mineral Museum; this year's version is scheduled for July 25-30 (http://www.museum.mtu.edu/keweenaw_mineral_days/events.html). The week's activities include collecting trips to historic Copper Country mine locations.

We might still be able to arrange a trip to the Thunder Bay, Ontario, amethyst area, for a small group of 5 or 6 (minimum). If you're interested in this, get hold of John.



Thunder Bay amethyst, with common hematite inclusions or coating.

In Memoriam – Chris van Laer

We learned today (May 4) that Chris van Laer has passed away in Butte MT. Those of us who were on last summer's field trip will remember his great generosity in showing us several collecting sites in the Boulder Batholith. He has been a notable presence in Montana (where he was an outspoken advocate for public access to public land), on mindat, and in the mineral world in general, and will be missed.

Postscript to Darwin Field Trip Report

John Cornish wrote an eloquent report in 2007 that really tells the story of what it must have

been like at the height of mining in Darwin. Here is the link:

<http://mcrocks.com/ft07/CornishAugust2007.html>

And this image:



*The outhouse at Ajax Mine, Darwin Hills CA
Use with caution!*

Chatsworth Mineral Collection

One Sunday evening last December I [editor] watched the BBC program "Chatsworth House" on PBS. Chatsworth House, one of the largest intact estates in England, has been in the same family (Cavendish) since 1549, beginning with 3 Earls and followed by 12 Dukes. Toward the end of the program, the current (12th) Duke remarks that he's always learning something new about the family's collections, whether it's the furniture, the art, or the minerals. Wait, what? Minerals? I had to know more about this, and here's what I learned.

Given the uncertainty of internet references, I was pleased to find that this collection was the subject of a Mineralogical Record article (*The Devonshire Mineral Collection of Chatsworth House*, May-June 2005), and also *The Geology of Chatsworth House* by Thomas and Cooper (2008) (http://www.emgs.org.uk/mercian_v13on.php). Here is a brief summary, along with my recommendation to read both of these detailed and interesting articles.

The wife of the 5th Duke, Lady Georgiana Spencer (a distant ancestor of Princess Diana) was a glamorous socialite. However, in 1792 she was banished to mainland Europe due to her

extensive gambling debts and, not coincidentally, to give birth to her illegitimate child from an affair. While there, seeking distraction, she pursued her longstanding interest in geology, learning from notable scholars all over Europe. She even climbed Vesuvius where she may have done some field collecting. After about 18 months she was allowed to return home, bringing her mineral collection (and the child), and a newfound lifelong passion for mineralogy.

White Watson, a notable English geologist whose uncle Henry had founded the nearby Blue John fluorite trade, was enlisted to catalogue and arrange the mineral collections of Georgiana and her sister, Lady Henrietta of Bessborough at Chiswick House (the Chiswick Collection). As he worked on the Chatsworth Collection, Watson added a considerable number of items to it. The resulting collection is wide ranging in its content, including items such as an inlaid tablet with “18 varieties of Derbyshire toadstone” and a collection of Scottish agates in addition to many fine mineral specimens.



Figure 28. Calcite on fluorite from the Gregory Mine at Ashover [Derbyshire]. (Thomas & Cooper, 2008)

Georgiana’s minerals are considered to be a fine early collection with outstanding pieces primarily from classic European and English localities. Following her death her son, the 6th Duke, who never married and was known as the Bachelor Duke, continued collecting and purchasing minerals. He had a similar good eye for specimens although he was also occupied with many other interests.

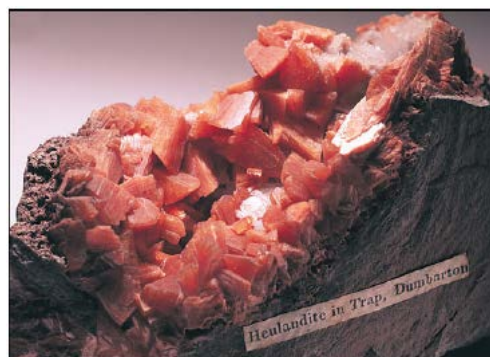
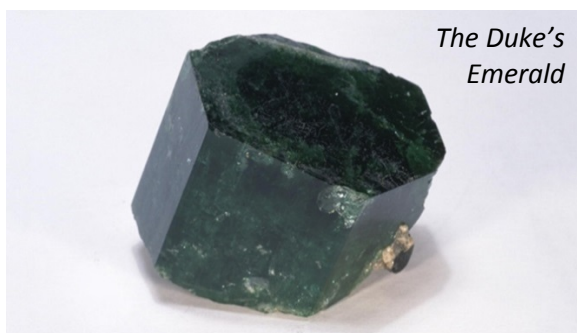


Figure 34. Beautiful heulandite in Scottish basalt. (Thomas & Cooper, 2008)



Figure 31. Siberite, a variety of tourmaline from the Urals. (Thomas & Cooper, 2008)

One notable item in the collection is the Duke of Devonshire Emerald, which was either sold or given to the 6th Duke in the 1820s by the first Emperor of Brazil, Don Pedro I. The stone, long considered to be the largest and finest uncut emerald in the world, is a deep green terminated crystal from Muzo Colombia. Parts of it are perfectly transparent, others are heavily flawed.



5 cm across and 1,383.95 carats

The mineral collection has remained in the family, largely intact, to the present time. After Georgiana and her son, the next active mineral collector in the family was the 11th Duke (1920-2004). In the intervening century or so, the collection languished in storage until Britain's Russell Society (<http://russellsoc.org/>) got involved in the 1990s and went to work on its restoration – cataloguing, researching, and improving storage conditions at the estate. The grand total of specimens determined by the Russell Society for the combined Chiswick and Chatsworth collections is about 2,250 known specimens since 1799. Historic lists and the current collection contain a number of unlabeled and unreconciled specimens.

The Cavendish family continues to live in a portion of Chatsworth House, while larger parts of it are open for public tours. Many types of stone, some from within the estate property or nearby, were used in the building itself and some of its furnishings; these are also described by Thomas and Cooper (2008).

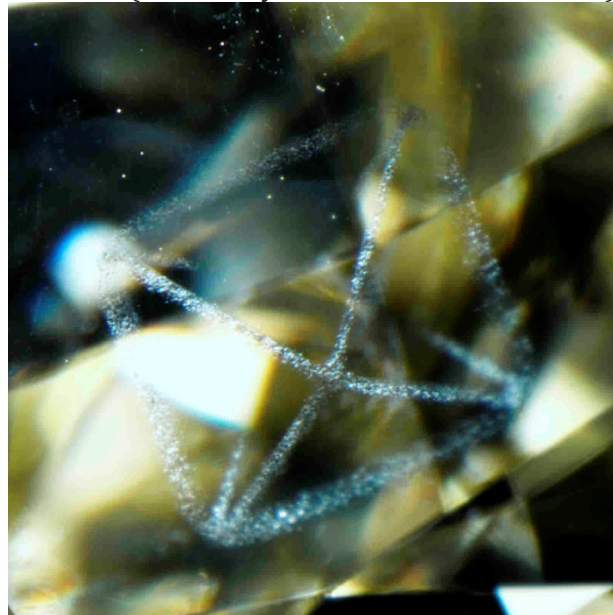


Figure 10. The table with stalactites, in the West Corridor. (Thomas and Cooper, 2008)

In 2010 some of the family's treasures, including exquisite jewelry from the Chatsworth Vault, went on view in the estate's newly created North Gallery. At the same time, three cabinets containing Duchess Georgiana's mineral collection went on display for the first time. The Duke's Emerald went on display in the Vault at the British Museum of Natural History in 2007.

Diamond Crystal

There was a recent discussion on mindat about the crystal pictured below, which seemed worth reproducing here. The G&G article cited shows the entire cut stone with the perfectly centered inclusion (not readily visible at newsletter scale).



Minute graphite inclusions outline the octahedral crystal faces in this diamond. Photo by Yixin (Jessie) Zhou; field of view 7.19 mm; originally published in the Winter 2015 issue of Gems & Gemology (<http://www.gia.edu/gems-gemology/winter-2015-labnotes-graphite-inclusions-forming-octahedral-outline-diamond>).

(Photo used with permission of Gems & Gemology.)

Upcoming Symposium [no area shows!]

Jun 3-5, El Dorado CA

Northern California Mineralogical Association Annual Micromineral Symposium, El Dorado Community Hall, 6139 Pleasant Valley Road. Registration \$25 at the door.

Scheduled Talks and Events:

Fri 7 pm – “What’s Old in Minerals” (featuring specimens found on last year’s giveaway table)
 Sat 10 am – “Minerals of the Silver Coin Mines”
 Sat afternoon – silent auction
 Sat evening – live auction
 Sun 10 am – “Minerals of Mont Saint Hilaire”
 There are also giveaway tables and \$1 micromineral sales throughout the weekend!