



2017 Tucson Gem and Mineral Show © poster

Exhibiting at mineral shows is part of the museum's strategy to reach a larger audience. We reach a broader Michigan audience through our frequent exhibition at the Greater Detroit Gem, Mineral & Fossil Show held in October and a much larger audience at the world's premier mineral show, the Tucson Gem and Mineral Show® held in February. This year the museum was privileged to have a featured presence at Tucson. The Tucson show prints and distributes a poster consistent with the year's theme, similar to what would be done for a major art exhibition. The theme this year was "Mineral Treasures of the Midwest." The show committee selected one of our museum's specimens for this year's show poster and special exhibit, a 13 cm copper crystal group from the Phoenix Mine in Keweenaw County that was donated to the museum by L. L. Hubbard circa 1917. Hubbard was a former state geologist and mine manager for the Champion Mine. He served on the boards of Michigan Tech and the University of Michigan. Over his lifetime, Hubbard accumulated a significant collection of quality Keweenaw specimens among others. He donated them split between Michigan Tech and the University of Michigan. Since 2015, the museum is home to both halves of Hubbard's collection through the Michigan Mineral Alliance. John Jaszczak (Physics), adjunct curator, and Chris Stefano, associate curator, took the photo of the specimen used on the poster while the poster itself was designed by Marie Sharp of Tucson, Arizona. The background photo of the Phoenix Mine came from the Reeder Photograph Collection (MS042-049-999-U717A) preserved in Michigan Tech's Archives and Copper Country Historical Collection.

There are currently over 5,000 officially recognized mineral species. To officially name a new mineral is not a simple process. A proposal must be submitted to the International Mineralogical Association's Commission on New Minerals, Nomenclature, and Classification and that proposal must include definitive analytical data to demonstrate it is a new mineral species. Each year the commission only approves about 100 new minerals. After four years of work, an international team of



Unusually long whiskers of merelaniite (right) inside a 2.8-cm tall quartz crystal (left), associated with chabazite.

scientists working with adjunct curator John Jaszczak received approval of their proposed new mineral from the famous tanzanite gem mines in the Merelani Hills of northern Tanzania. The new mineral, named *merelaniite* in honor of the miners working in the region, is a molybdenum-essential member of the cylindrite group of minerals ( $\text{Mo}_4\text{Pb}_4\text{VSbS}_{15}$ ). Its crystal structure is quite complicated, being composed primarily of alternating  $\text{MoS}_2$ - and  $\text{PbS}$ -type layers. Merelaniite crystals grow in the shape of cylindrical hair-like whiskers, sometimes up to 1 cm long. Unlike many new minerals for which there is only one known microscopic specimen, multiple crystals of merelaniite are known to exist. Hence, the museum was able to acquire an excellent specimen for the collection shown in the pictures at left. John was first

author of the published description of merelaniite in the October 2016 issue of the journal *Minerals*, <http://www.mdpi.com/2075-163X/6/4/115>. John's collaborators included Mike Rumsey, John Spratt, and Chris Stanley from The Natural History Museum (London), Luca Bindi from Università di Firenze (Italy), Steve Hackney from Michigan Tech's Materials Science and Engineering Department, and Michael Wise from the Smithsonian Institution's National Museum of Natural History. John helped write this paragraph and provided the merelaniite photographs.

Being able to name a new mineral is an honor that adjunct curator John Jaszczak now holds. However, an even greater honor is having a mineral named after you. I'm pleased to report that the new mineral, *jaszczakite*, has been named after John. It is a single grain of an orthorhombic sulfide of gold, bismuth and lead from the Nagyborzsöny gold deposit, Hungary. The name was announced by authors Luca Bindi (Italy) and Wernar Paar (Austria) in the December 2016 issue of *Mineralogical Magazine*, with a detailed description to be forthcoming in the *European Journal of Mineralogy*.

Until next time, Ted Bornhorst, Executive Director