

In this second year of Showcase, I'm looking forward to keeping you connected with the museum. I'd like to begin this issue by expressing my gratitude to all of you who made a year-end/beginning donation/membership. Thank You! Your donations allow us to do special things we might otherwise not do. Also, we are grateful for the minerals that are donated to build our mineral collection. While in the past year I've highlighted significant additions to the museum's holdings, there were also many smaller donations. In this Showcase you will hear about one of them.



About 6 feet long section of the fulgurite.

Associate Curator, Chris Stefano thinks of the acquisition of a giant fulgurite from Michigan as "lightning striking twice." Fulgurites are produced by melting of sand or soil when lightning strikes the ground. More typically, fulgurites are small soda straws and big fat ones are much rarer. Nora Braniff of Flint, Michigan, asked if the museum was interested in the donation of part of a large fulgurite found on her property near Houghton Lake, Michigan and if so they would deliver it to us. I recall Chris's excitement when Nora's son, Kyle (a student at Michigan Tech) walked into the museum with not just a big fulgurite, but a truly huge one! It is slightly more than 3 feet long and weighs about 30 lbs. In the ground, the whole fulgurite was about 30 feet long; the section that Nora donated to A. E. Seaman Mineral Museum was the largest intact section recovered. Chris designed a special introductory exhibit for this goliath fulgurite.

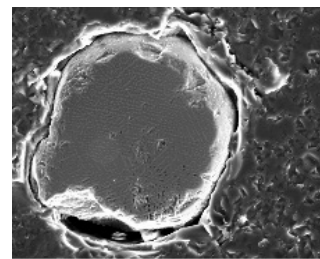


Ruth Oppliger with the exhibit.

Ruth Oppliger is studying the minerals in the huge fulgurite, as a research project supervised by Associate Curator Chris Stefano. Ruth is a Michigan Tech student working toward a B.S. in

geological engineering. Other large fulgurites are known to contain rare minerals. An assemblage of rare minerals that form at temperatures greater than 1700 °C (that's 3000 °F) were found in a different large fulgurite from Lower Michigan. This is the temperature experienced by heat shields during reentry from space. Ruth and Chris recently found a tiny grain of yet to be identified minerals; bright bands are more iron-rich and dark bands are more silicon-rich. This recently found grain is still under study.

Scanning electron microscope photomicrograph of rare iron-silicon minerals in a very tiny round ball about 120 μm across.



In future issues this year, I'll tell you about some more of the smaller but important specimen donations.

In a few weeks, the museum will be exhibiting at the world's premier mineral show, the Tucson Gem and Mineral Show. Yes, the Tucson show provides a break from Houghton's winter and I think the timing and southern location is one reason it has been so successful over the years. This year we will have two exhibits rather than one. One of them will feature minerals from the recent donation by Paul and Janet Clifford highlighted in Showcase Issue 3. For the other we are partnering with the Royal Ontario Museum in Toronto to put on a special exhibit entitled "Separated at Birth." The exhibit will display two halves of a yellow smithsonite stalactite from Masua, Sardinia which were separated shortly after being collected. One half is part of the collection of the Royal Ontario Museum while the other half is part of the University of Michigan mineral collection now at the museum under the Michigan Mineral Alliance. Mineral shows provide us a venue where 10s of thousands of people, a national and international audience, get a glimpse of a few of our great mineral holdings. These shows are a way for the museum as a representative of Michigan Tech to broaden its recognition and reputation. Perhaps we will cross paths with you in Tucson.

Until next time, Ted Bornhorst, Executive Director