

In the last issue of **Showcase**, I asked for your help to encourage qualified candidates to apply for the museum's open staff position. I am pleased to report that the search was successful with Patrice (Patty) Cobin joining the museum in the middle of August as Associate Museum Manager. Patty spent her formative years in Connecticut and attended Mount Holyoke College in Massachusetts where she earned a B.A. in Geology and History. She graduated from Michigan Tech in 2013 with a M.S. in Geology, and afterwards spent 5 years in North Carolina until returning to the Copper Country. During her few years as a graduate student, Patty quickly learned why Upper Michigan is a special place. She told me that "I'm delighted to be able to come back home." Please do welcome her back "home."



Just a few weeks ago the museum announced the opening of its newest gallery titled "Mining Minerals."



Exhibit Case 1  
Mining Diorama



Exhibit Case 2  
Environmental Considerations



Exhibit Case 3  
Open Pit Mine



Exhibit Case 4  
Smelting



Exhibit Case 5  
Capping Mine Opening

The new Mining Minerals gallery is innovative because it covers the entire mining cycle in a holistic way, directly connects to the uses of minerals, and augments the other mineral exhibits in the museum. A gallery focused on mining fits well with Michigan Tech's origin in 1885 as the Michigan Mining School and with the museum's mission to educate people about minerals. The new gallery consists of five exhibit cases with portions of them shown above. Exhibit case 1 is an outline of the types of Earth resources and an overview of the mining process. The 2<sup>nd</sup> exhibit case presents the activities necessary before a mine is created, beginning with exploring and discovery of a potential mineable resource. This is followed by intensive studies, including design of the mining facility, environmental considerations, economics, mine closure, and application for mining permits. Once the permits are approved then the mining industrial complex can be constructed for an open-pit or underground mine as described in the 3<sup>rd</sup> exhibit case. Mineral resources require processing to make them ready for industrial applications as illustrated in the 4<sup>th</sup> exhibit case. The last phase of the life of a mine is closure, the theme of the 5<sup>th</sup> exhibit case. The mine closure exhibit touches upon removal and repurposing of the surface mining infrastructure, reuse of non-hazardous mining waste, and minimizing the impact of hazardous waste. The exhibit uses the capping of the mine shaft under the museum as an example. The all-encompassing concept of sustainable or green mining is also introduced.



Uses of copper

The Mining Minerals gallery is adjacent to the Minerals and You gallery which demonstrates how minerals are important in our everyday lives, with example uses of metallic mineral resources and industrial rocks and minerals. The main four exhibit cases have recently been broadened and clarified by including descriptive text. A few years ago we installed an exhibit focused on the various minerals used in your car, sponsored by Chrysler. While this exhibit focused on a consumer product, it is now complimented by a new exhibit taking the opposite approach by focusing on the many uses of just one commodity, copper.

These new and improved exhibits helps the museum better raise public awareness about the relevance of minerals to society.

Until next time, Ted Bornhorst, Executive Director