

Hi, I am Claire Pless, PhD. I am a local to the Connecticut Valley, having grown up in Shutesbury and gone to school in Amherst. My interest in rocks started when I was young and would just pick up rocks that I thought looked nice. When I found out geology was a thing and I could study rocks, I immediately knew that was what I wanted to go to college for. I earned my bachelor's degree from UMass Amherst, after which I ventured out West to Colorado for my master's from Colorado School of Mines. For my master's degree, I mapped faults in brittle sandstones in the field in Arches National Park and by computer in Canyonlands National Park. I decided for my PhD I wanted to focus more on ductile deformation of rocks and gneisses rather than sandstones, so I came back to UMass Amherst and earned my PhD in 2020. My PhD research focused on the rocks of the Adirondack Mountains in upstate New York, where the gneisses I was looking at had once been buried under potentially Himalayan-scale mountains. My research was focused on finding out exactly how long ago those mountains were there, using the mineral monazite, which grows under conditions of high enough temperatures and pressure to partially melt the rock, like when they are underneath significantly large mountains. Monazite has a known radioactive decay from uranium to thorium that lets us determine how old it is and therefore when it grew under these conditions. Turns out that is just over 1 billion years ago.

Now, I work at Mount Holyoke College, where I am the Geoscience Technician. This means I run our sample prep room, I make thin sections of rocks to look at under a microscope, I maintain the department's mineral collection and displays, I maintain our stream table, and overall keep things around the department running. I also have been helping out in different lab sections of classes, such as in our Rocks and Minerals class, our Earth Surface class, and I also got to be co-instructor of our class that culminated in a field trip to Death Valley last year. To be honest, that is just a portion of what I do in the department. Taking students on field trips to geologic locations is a deep interest of mine, where I get to share my enthusiasm for the field with them. In November 2021, we took a trip to Betts Mine, graciously hosted by Rick Cernak, where our students got to experience collecting. Afterwards, I helped some of those students cut and polish some of their samples and we put together a display from those collections that is currently in our department hallway. I also delved more into looking at these samples under both an optical microscope and a scanning electron microscope as the mineralogy of the Betts area is vastly complex and interesting.

My involvement with the Western Mass Mineral Show started during my PhD, when my advisor, Mike Williams, reached out to his students for volunteers to do rock and mineral identification. I believe the first year I volunteered was the year before the show moved to the commons in Hadley, and I have volunteered each year since. Last year, after I completed my PhD during Covid, and when the show started up again, Mike reached out to me once more to volunteer, this time as a member of the Mount Holyoke community and here I am, continuing to do so, bringing along my own student volunteers. I love the interaction with people who don't have my background in geology, but still share my enthusiasm and interest in rocks. The more people I get interested in rocks, the happier I am.