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Why did you become a scientist?

I've always been fascinated by mountain landscapes. Studying geology gave me the tools to understand why these landscapes look the way they do, how they evolve over time, and how their modern properties preserve evidence of past landscape changes. I love how being a scientist rewards creativity when developing new ideas, new hypotheses to test, new tools for analyzing samples, and new techniques for interpreting results. I also appreciate how relevant Earth science is to society, and am energized to explain and demonstrate that relevance to students and the public.



What do you study for DUST²? Why is this important?

I study how dust deposition over long time periods impacts the development of mountain soils. Soils in the mountains tend to be cold, thin, and stony; it's a tough environment! But, at the same time, many mountain soils are surprisingly fertile and loaded with nutrients. These don't come from the underlying rock; they are delivered by dust. Understanding that process is the key to understanding how soils serve as the foundation to mountain ecosystems.

What do you do day-to-day in your work?

I spend a lot of time in the field, which means living in a tent, hiking to field sites, carrying equipment, and dealing with a host of challenges. After fieldwork, I'm in the lab, analyzing the mineralogy and geochemistry of soil and dust samples. I also teach college classes on environmental geology, mountain environments, and other related topics. And I'm always busy advising students on projects at the intersection of their interests and my research.

What is your favorite part of what you do and why?

I truly enjoy being in the field. The opportunity to spend time immersed in the areas I'm studying is something I find endlessly rewarding. And I've always felt that the deeper my connection to a place, the more complex and interesting questions I can ask about it.

What advice do you have for students interested in science?

It seems cliché, but follow your passion. Find what you love, and make it the center of what you do.

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