

“Geologists ask, ‘What is this rock trying to say to me?’” Julie says with a smile. Yet she wasn’t always so **enthusiastic** about reading rocks.

“Science was my second-worst subject in school, right behind math,” Julie admits. “I never thought I’d do anything involving science. But I really liked being outdoors, so I wanted to do something that would let me be outside.”



READER OF THE ROCKS

This simple-sounding idea tells us something important about the world and how it works. Things change. What was once a seafloor is now a mountaintop. What was once a tropical swamp is now a frozen desert. We live on a world that is always changing.

READER OF THE ROCKS



<http://beyondpenguins.nsd.org>

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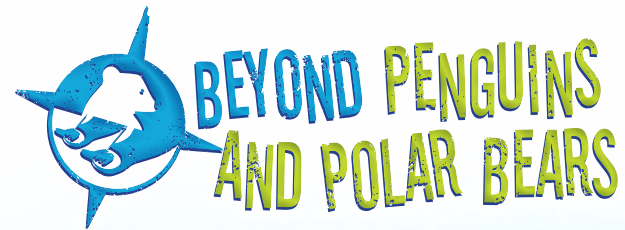


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READER OF THE ROCKS

BY STEPHEN WHITT

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In college, Julie began by studying natural resources. Then she took a geology class that studied the history of **Lake Erie**. As Julie learned the history of the lake and the rocks that make it up, she became hooked. "I was amazed," she says, "that the professor could learn all this information just from rocks!"

READER OF THE ROCKS

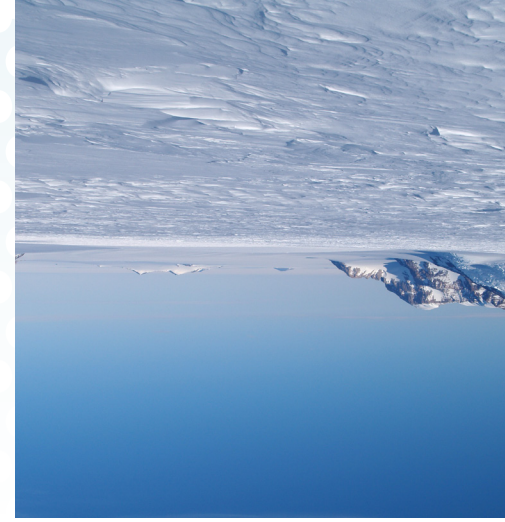
READER OF THE ROCKS

GLOSSARY

- CONTINENT** — one of seven large areas of land on Earth
- ENTHUSIASTIC** — excited
- FOSSIL FUEL** — fuel formed from the remains of once-living organisms
- GEOLOGY** — the study of rocks and minerals
- LAKE ERIE** — one of the five Great Lakes found in the Midwest region of the United States
- MALACHITE** — a green-colored mineral

Here's the mystery. There are no trees on Antarctica today. There are no swamps. There are no towering forests. The presence of coal on this frozen continent tells us something. It says that Antarctica was not always like it is today. Antarctica has changed.

Antarctica. Photo courtesy of Paul Thur, National Science Foundation, U.S. Arctic Program.



READER OF THE ROCKS

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Julie isn't just talking about her necklace. She's also describing her favorite subject, **geology**. Julie works at the U.S. Polar Rock Repository at Ohio State University in Columbus, Ohio. It is like a library of **rocks** from the Arctic and Antarctica. Scientists from all over the world have sent rocks there to be carefully studied and stored.



MINERAL - a natural, solid material with particles arranged in a repeating pattern

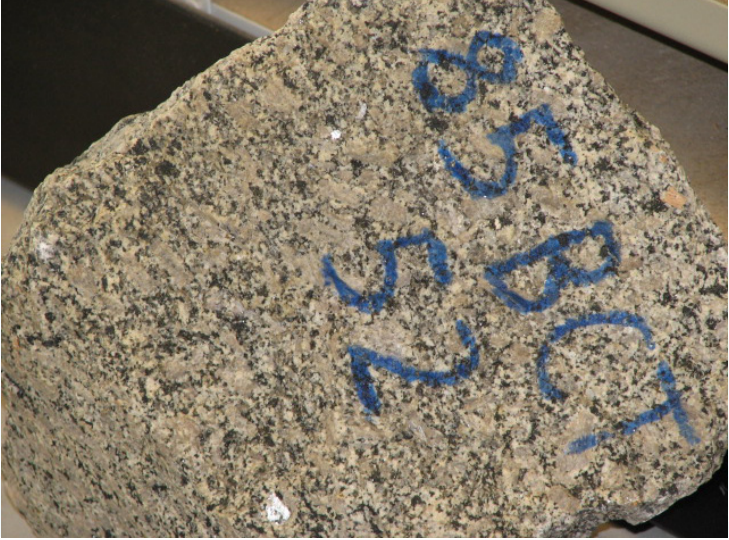
MISCHIEVOUSLY - playfully

PENDANT - an object that hangs from a necklace

ROCK - a material made up of one or more minerals

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"It's a little bit mysterious," says Julie Codispoti. She's talking about the **pendant** she wears around her neck. It's a deep green, polished **mineral** known as **malachite**. "See the green circles here?" she says, pointing out the details in the stone. "No one's really sure how they form that way."



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But this means more questions. What changed? Why did it change? Is Antarctica still changing today? How?

Julie knows that the rocks can give us the answers. "Rocks have a story to tell," Julie says, "they have a language. You just need to learn to read that language to understand the story they're telling.

"The rocks from Antarctica," Julie goes on, "are not all that different from rocks that come from other places in the world."



The wonderful thing about science is that the mystery is open to everyone. "If there's something you want to do," Julie says, "but you're not necessarily good at it, go for it, anyway. You might just surprise yourself!"

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Now, Julie is becoming a reader of the rocks herself. "Professors make it look easy," she says, "but it's not that easy. Science is still hard for me. But in a way, that makes it more satisfying. The fact that I can study something, work hard at it, and really understand it is very fulfilling to me."



Julie is the assistant curator of the repository. This means that she is in charge of describing, photographing, and storing the rocks and minerals. But what she really loves is sharing the mystery of rocks with others.

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For example, take a black, crumbly rock from the cold **continent** of Antarctica. Julie shares a secret. This rock is the **fossil fuel** we call coal. It formed many millions of years ago from trees that grew in an ancient swamp. Generation after generation of trees grew, died, and fell, squashing one another under their enormous weight. Over millions of years, the trees decayed and became coal.



Coal. Photo courtesy of Wikimedia Commons.