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We Built Cities on Rocks (Real Old)

| An interview with Professor Neil Banerjee
| Geology Researcher, Western University

What can we learn from rocks?

In order to understand our own planet, how we got here, and what our future is, you really have to put Earth in the context of the solar system. So one of the big drivers that I look for, is kind of, what/how did life originate on Earth? One of the other big things that I do, and especially in partnering with companies like MDA, is really trying to bring space technologies back to Earth. Designing something for space is one of the most technologically challenging things you can ever do. Some of these technologies, for example that are on the Curiosity Rover, we're now taking out into the field and remote regions on Earth and learning about our own planet, too. And so that translation of knowledge from space to Earth is something that I firmly believe in, and is something that I try to incorporate into my research.

What are the specific applications of your research?

We use rocks every single day. The camera that's videotaping this, all the metals, all of the oil to get here. Being able to read the rocks allows us to understand where's the next big deposit, where's the next big oil discovery, how are we going to help do things in a more environmentally responsible way. So we partner with companies quite often to allow them to have the opportunity to get access to the research that we have at the university which is something that is sort of cutting edge and new, and maybe it's been developed for a different field. It makes it more efficient for them, so that means that there's a smaller environmental footprint, it means that they can do it more quickly.

What does the future hold for your research?

The world is expanding and growing. As new economies like China and India come on board, there's a huge need for these types of resources, and so if we can do resource exploration in a much more effective and efficient manner, it gives us two

major benefits. One, those resources come online and they heal the world's economies, but also we can do it in a more responsible manner; a manner that doesn't require the same type of impact on the environment. My research, a lot of the time, is all about exploration; it's all about discoveries. So it's going to a new place, going to a new area and turning that into something that becomes of economic benefit to society. That's where the real value comes in.