Unit 04 Toothpaste Rocks

[MUSIC PLAYING]

This is the most glorious place. Just look at this place. We're sitting on these old rocks, these seriously old, 1.7 billion year old rocks.

Everything around us that's black didn't quite melt. Everything around us that's pink actually did. That was molten magma squirting into cracks. And the stuff that didn't melt was like toothpaste. It was so soft, because it was so hot, that it just flowed and crinkled and folded, and--

It's been bent, and one can follow any of these layers along. And you see that they wiggle, and they come around, and then they come out here and back. And so these rocks were really, really hot. They were almost up at the melting point.

And they were being squeezed. There was mountain building of some sort going on that caused them to have squeezing and to be pushed from here to there. And as they go, very often, you get something like this folding. If you take a phone book and squeeze it, it'll fold. And in the same way, when you squeeze these rocks, you end up folding them.

The other part that's interesting, here, is that we can see these beautiful things so very well because this stream has come over them. And it's eroded them, and it's polished them. And the surface that we're on is very smooth.

But this is the heart of the mountain. This is what it would look like if you could get down in a mountain range somewhere, down there about 5 or 10 miles. And that's what we're standing on.

Migmatite. M-I-G-M-A-T-I-T-E. It's not quite magma. It's migma. Mixed magma. And you'll see all of these awesome morphs and wiggles and the little things through here.

This melted. This didn't. This melted. This didn't.

Oh, this layer-- that's beautiful. These things have been really, really hot.