

TWO DIFFERENT KINDS OF VOLCANOES

CHUCK BLAY: If you ask somebody to draw a volcano on a chalkboard, it's going to be very steep sides, probably approaching 25, 30 degrees. Mt. Vesuvius, Mt. St. Helens, Mt. Pinatubo, the classic volcanoes of the Earth that everybody looks at and says, "Oh, that's a volcano, there's no doubt about that."

BRITT ARGOW: From these classic-looking volcanoes often come classic eruptions.

DAVE SHERROD: Most of our experiences with volcanoes throughout the world are with steep-sided volcanoes. We've experienced it ourselves in our lifetimes, the volcanoes that are catastrophic in their eruptions. Mt. St. Helens comes to mind, that fateful day in May of 1980. Not just exploded, but half the side of the mountain is gone.

ARGOW: Volcanologist Dave Sherrod is at the summit of one of the most active volcanoes on the planet: Kilauea, on the big island of Hawaii. Some volcanoes in the world extrude vast amounts of lava and build up slowly with broad slopes to form what we would call a shield volcano, and that's the kind of volcano Kilauea is. For a lot of folks, they drive up from sea level, getting higher and higher, they reach the summit and they look around and say, "Where's the volcano?" To understand that, we need to understand the great size of a volcano like Kilauea. Although we're at the summit, it extends east of us over 40 miles down to the coast and then proceeds into the sub-sea setting as a broad ridge for another 40 or 50 miles. It's an immense volcano.

ARGOW: An immense volcano where lava usually bubbles up and flows across the surface in great rivers of molten rock.

BLAY: Hawaiian islands are somewhat different in that when they erupt, they don't explode as much. There are explosive episodes, but the bulk of the material that comes out flows out, it bubbles out. This is called effusion. These are called effusive volcanoes, compared with explosive volcanoes.

ARGOW: When we compare the explosive Mt. St. Helens and effusive Kilauea, we see two very differently shaped, differently sized, and different styles of volcano.