

Mineral Spotlight: Pectolite

When you think of flowing lava, you may think of Hawaii or Iceland, but what if we told you this week's mineral formed in basaltic lava flows in New Jersey? Pectolite is a mineral that forms in cavities in basaltic rocks, meaning that it forms in bubbles and cracks in hardened lava. Hydrothermal fluids (naturally occurring hot water with lots of dissolved minerals) are pushed through the rock, and deposit minerals in any void spaces.

But wait – when did lava flow in New Jersey? 200 million years ago, Pangea was just beginning to break apart. A massive rift valley was forming, right along the East Coast. As the land was pulled in two opposite directions, magma from the mantle upwelled and erupted on the surface as basalt, rich in iron, magnesium, and calcium. Flood basalts like this occur all over the world, with some of the most famous being the Deccan Traps in India and the Columbia River Flood Basalts.

Pectolite occurs in these localities too, and in most places with basaltic lava flows. In the Dominican Republic, sky blue pectolite has been found, named Larimar. It is popular as a polished gemstone.

This feature was posted on Dice Museum social media by Museum Curator Jillian Herlinger on 8/9/2022.

