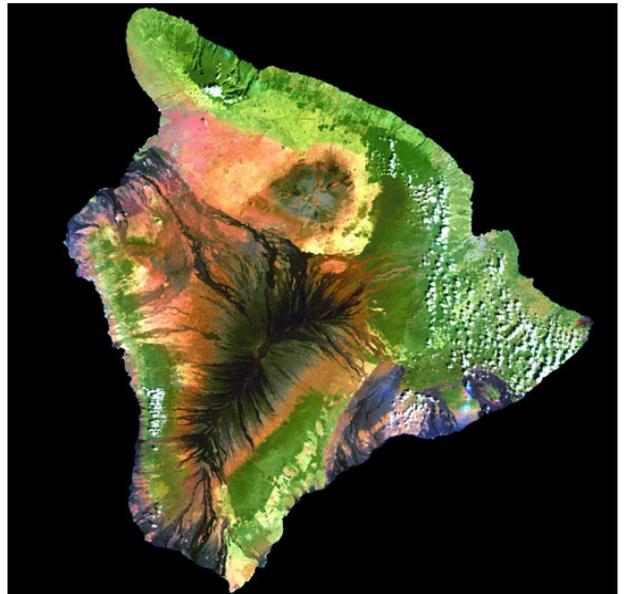




Formation of the Hawaiian Islands Did you know?

1. Do you know the sequence of the shields that built Hawai'i island? Let's see how well you do. First came Kohala. It's about a million years old, perhaps younger. Next came Mauna Kea, burying a huge portion of Kohala. Third was Hualālai, most recently erupting in 1801, followed by Mauna Loa, which erupted for a 3-week period in 1984, and finally Kīlauea, which until 2018, spewed lava continuously for over 35 years! Did you get the sequence right?

These 5 distinct shields make up one huge island, and there's possibly a 6th shield to come, although it may take several thousand years. Lō'ihi is a little more than half a mile beneath the ocean's surface. It last erupted in 1996. If Lō'ihi ever breaks the surface, it will have 2 options: become an island of its own or become the 6th shield forming Hawai'i island. It'll be a long wait. Don't hold your breath!

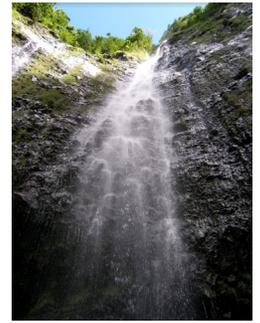


2. There are many ways to appreciate the geology of Hawai'i. More than one mo'olelo speaks of how the islands formed. If you do some research, you can find stories of Māui and his brothers using Māui's magic hook to wrench the islands from the sea. Look further and you'll uncover mo'olelo of Papa and Wākea's family struggles and how they relate to the creation of the islands. And, of course, there's the exciting history of Pele and her sister, Nāmakaokaha'i, and of the pig-god Kamapua'a. These are just a few of the epic traditions awaiting your discovery, and they're right there at your fingertips! So, tap away and enjoy!

3. Sometimes history is not so ancient! Hawai'i island roads, farms, and homes were destroyed in and around Leilani Estates on Kīlauea's East Rift Zone in 2018 as 24 fissures opened and discharged lava for months. But not a single person died as a result of these events. Just like the 1990 flows that buried most of Kalapana and the 1960 eruptions in Kapoho, Pele was changing the landscape and growing the shield of her Kīlauea home.



4. Talk about not getting along! Shield building and erosion are constant rivals. The very instant an island peeks above the ocean surface, waves try to wash it away. No matter how enormous a shield may grow, erosion still competes. Rain, waves, wind, landslides, streams, rivers, waterfalls, and glaciers are fierce opponents of the Hawaiian Islands. And who do you think is going to win these mighty battles? If you say erosion, you're right! Long after an island moves off the Hot Spot and eruptions cease, erosion will continue until it's victorious, and the island is no more.



5. Think kākou! Individuals working together as a team! As Plate Tectonics slowly move our islands off the Hot Spot, it's as if there's some kind of an assembly line, moving older brothers and sisters away as newborn babies arrive. But they're still family, supporting one another. Older siblings get wrinkles as they age, in the form of valleys, gulches, and ravines. Youngsters maintain their babylike, smooth shapes, reminding us of gently sloping shields. But they're all related.

This process has been going on for longer than anyone can remember. The oldest sibling currently above water is Kure Atoll, aged at about 30 million years. And the oldest submerged Hawaiian seamount is Meiji at about 82 million years. No one knows how many family members on the Pacific Plate have long ago slid beneath the vast North American Plate, never to be seen again. But they're all in this together and are all a part of the same connected 'ohana.

