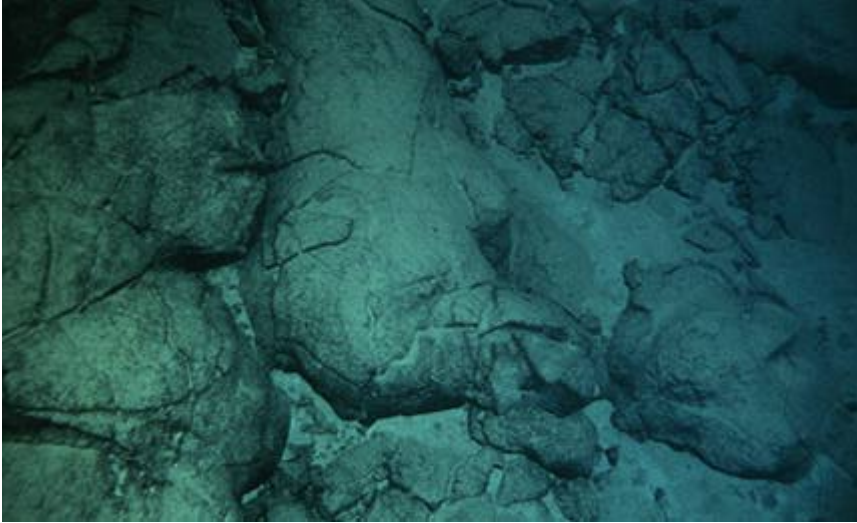


## Geology 2.3 – Volcanoes

### Types of Lava

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#### Pillow Lava



Eruptions under water or ice produce pillow lava. James Moore of the U.S. Geological Survey made the first underwater observations of the formation of pillow lavas (Moore and others, 1973). Moore and his coworkers studied lava from the Mauna Ulu eruption. They described pillow lavas as elongate, interconnected flow lobes that are elliptical or circular in cross-section (Moore, 1975). This photo shows pillow lava forming off the south coast of Kilauea volcano, Hawaii. (Photograph by Gordon Tribble and courtesy of U.S. Geological Survey.)

## Pahoehoe Lava



Pahoehoe lava is characterized by a smooth, billowy, or ropy surface. A ropy surface develops when a thin skin of cooler lava at the surface of the flow is pushed into folds by the faster moving, fluid lava just below the surface. (Pahoehoe lava, Kilauea, Hawaii. Photograph by J.D. Griggs, U.S. Geological Survey, June 15, 1989)

## Aa Lava



Aa is characterized by a rough, jagged, spinose, and generally clinkery surface. Aa flows advance much like the tread of a bulldozer. This photo is looking across an aa channel. Note the character of the aa that makes the wall of the channel. (Photo by Steve Mattox, October 12, 1990.)

# Lava Review

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Today, I learned the following things about lava:

- It exists as three basic types (i.e., Aa, Pahoehoe, Pillow)
- Pillow lava occurs when the eruption is under water or ice
- Pahoehoe lava looks like it has been processed through a cake mixer
- It was the only good thing about the 1997 movie "Volcano"