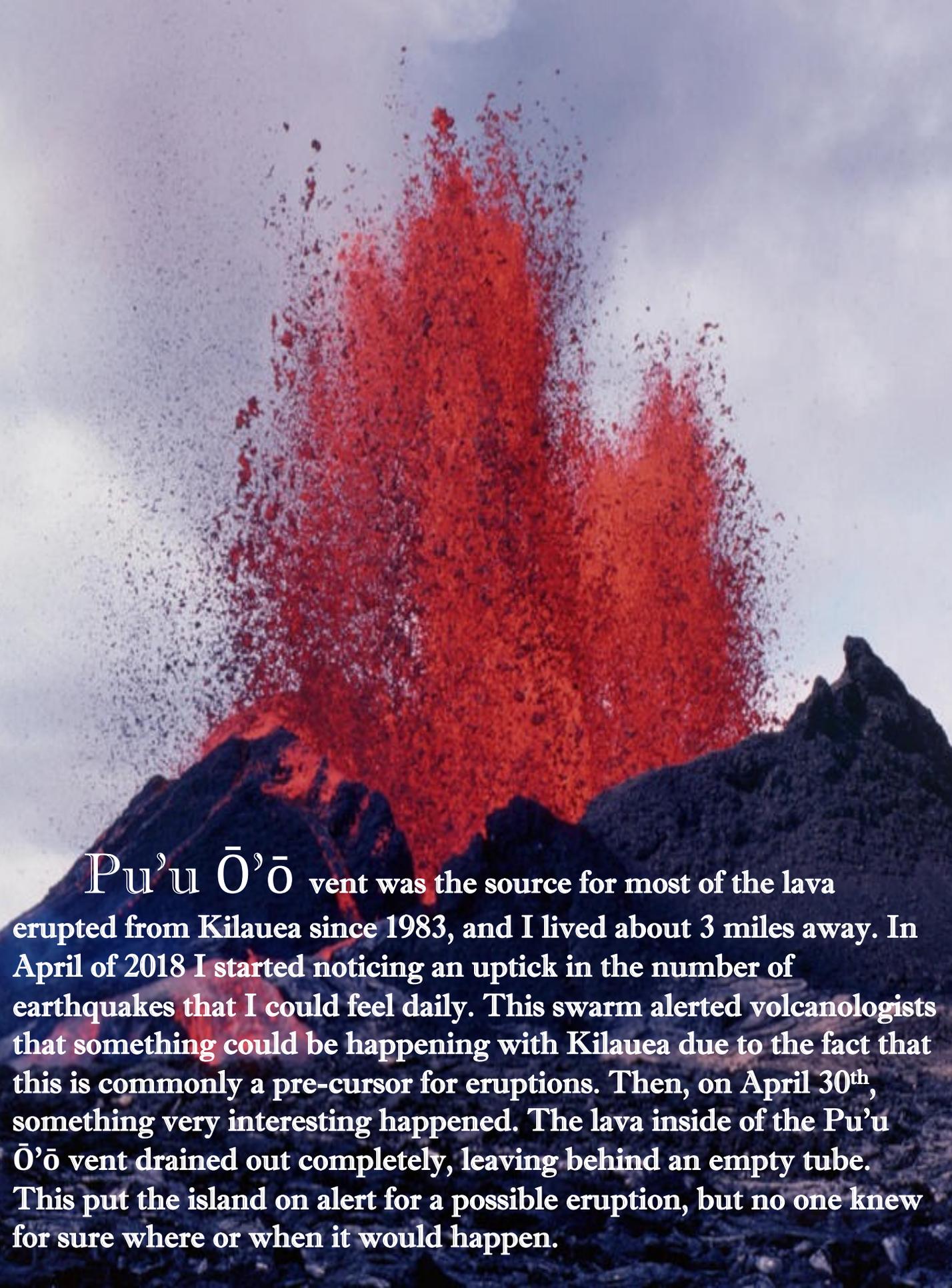


An Encounter with Kīlauea

By Raelyn Scachette



Halema'uma'u Crater is home to one of the largest lava lakes on the planet. Prior to the 2018 eruption the bright orange and red lava hissed and churned, sometimes spattering lava out or even overflowing into the crater. The glow from the lava lake drew millions of visitors every year to the Hawai'i Volcanoes National Park. I was a tour bus driver in 2018, and I was in the park nearly every day. It felt exciting but safe, as this spot had been erupting in about the same way for over 30 years. I loved bringing people to see this amazing sight. In May of that year, Kilauea reminded us all that it is one of the most active shield volcanoes on Earth, and it all started with swarms of earthquakes.

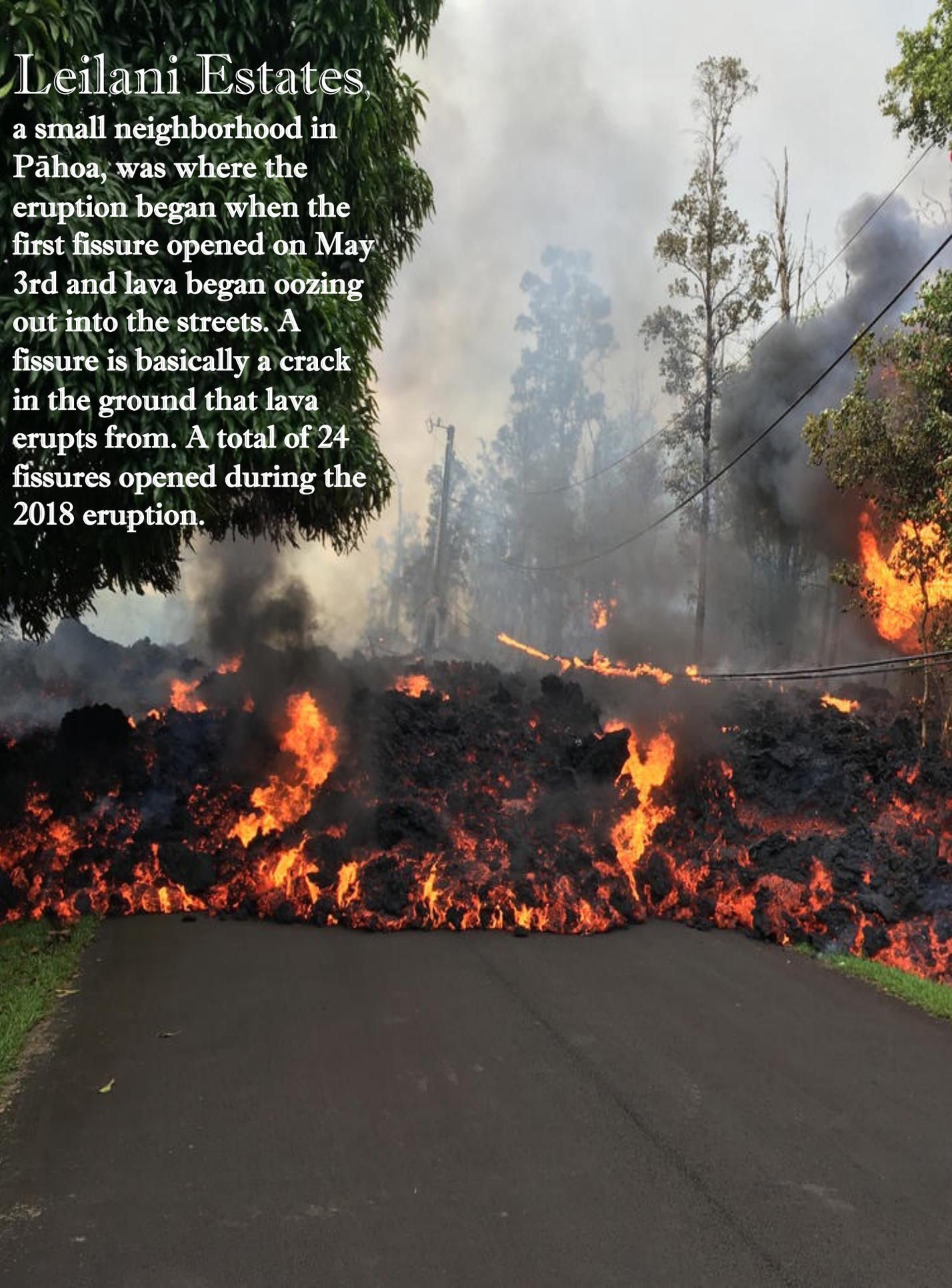
A photograph capturing a powerful volcanic eruption. A thick, vibrant red plume of lava and ash billows upwards from a dark, jagged volcanic vent, filling much of the sky. The foreground shows dark, rocky terrain. The overall scene is dramatic and intense, with a mix of bright red and dark grey/black tones against a pale, overcast sky.

Pu'u Ō'ō vent was the source for most of the lava erupted from Kilauea since 1983, and I lived about 3 miles away. In April of 2018 I started noticing an uptick in the number of earthquakes that I could feel daily. This swarm alerted volcanologists that something could be happening with Kilauea due to the fact that this is commonly a pre-cursor for eruptions. Then, on April 30th, something very interesting happened. The lava inside of the Pu'u Ō'ō vent drained out completely, leaving behind an empty tube. This put the island on alert for a possible eruption, but no one knew for sure where or when it would happen.

By the next day, scientists had determined that the lava from Pu'u Ō'ō had started moving East toward the town of Pāhoa. This was because the swarms of earthquakes were travelling in this direction. Back at Halema'uma'u, the lava inside the lake began to drain as well. This would mean more lava travelling toward Pāhoa, along the East Rift Zone. Lava will usually travel along rift zones, especially in shield volcanoes, mainly because it is the path of least resistance. My family and I packed an emergency evacuation kit in preparation for an eruption, which seemed all but imminent at this point. Since there was no way to be sure where the eruption would happen, everyone just watched and waited.



Leilani Estates,
a small neighborhood in
Pāhoa, was where the
eruption began when the
first fissure opened on May
3rd and lava began oozing
out into the streets. A
fissure is basically a crack
in the ground that lava
erupts from. A total of 24
fissures opened during the
2018 eruption.



A dramatic photograph of a volcanic eruption. A thick, dark brown plume of ash and debris billows upwards from a dark, rocky crater. The plume is dense and textured, with a smaller, more diffuse cloud of ash rising to the right. The background shows a clear blue sky with some light clouds. The foreground is a dark, rocky slope leading down to the crater's edge.

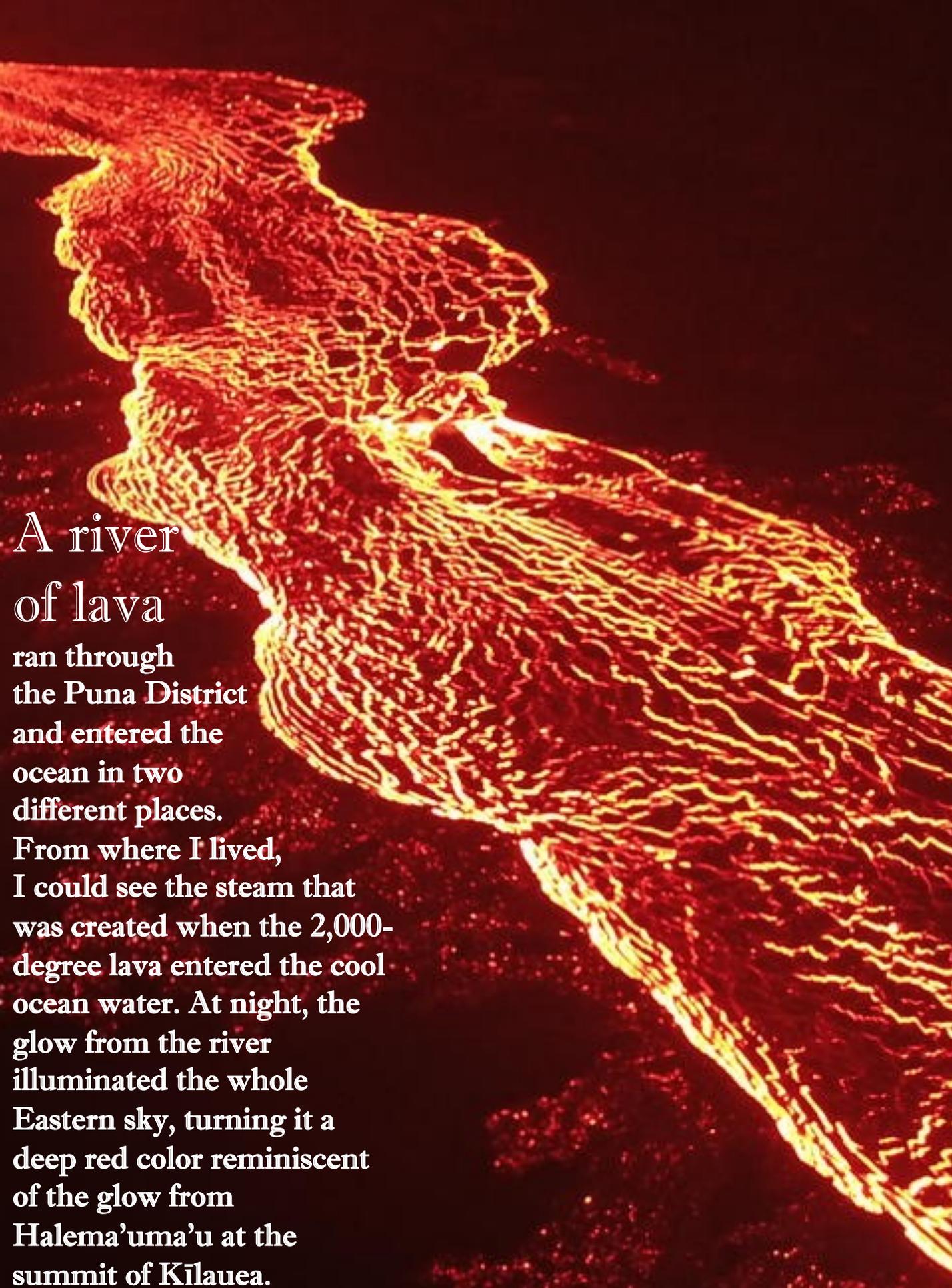
Jaggars Museum is where I was standing on May 4th when the largest earthquake of this eruption struck. I was only feet from the edge of the crater, swaying back and forth for nearly 40 seconds from the power of the 6.9 magnitude quake. A giant cloud of ash and debris came billowing out of the crater. Needless to say, I was terrified as I moved quickly to round up my passengers. This earthquake was felt throughout the state of Hawai'i and even generated small tsunami waves that reached all the way to Kaua'i due to an underwater landslide created by the quake.



Explosions began happening at the summit of Kīlauea once the lava completely drained from the crater. Once the empty tube reached the water table, any debris or rocks that fell into the tube would block the sulfur dioxide gases from escaping and the heated water would turn into steam. This created explosion events roughly every 28 hours, generating an earthquake of about 5.5 magnitude each time. I felt them all at my house since I live close by. It was nerve-wracking for me and made my 3 dogs very uneasy.

Fissure 8, later officially named 'Ahu'ailā'au, eventually stood out as the main active vent for this eruption. It grew quickly and the peak height of the cinder cone reached 180 feet tall. I could see 'Ahu'ailā'au easily from my road, even from 13 miles away, the lava was fountaining hundreds of feet into the air. It was estimated that this fissure was spewing out 25,000 gallons of lava per second, which accumulated to 30 billion gallons over the course of the eruption.



A photograph of a lava flow, appearing as a bright, textured river of orange and yellow molten rock against a dark, shadowed background. The lava has a cracked, porous surface and flows from the upper left towards the lower right.

**A river
of lava
ran through
the Puna District
and entered the
ocean in two
different places.
From where I lived,
I could see the steam that
was created when the 2,000-
degree lava entered the cool
ocean water. At night, the
glow from the river
illuminated the whole
Eastern sky, turning it a
deep red color reminiscent
of the glow from
Halema'uma'u at the
summit of Kīlauea.**

This eruption was the end of an era. Kīlauea had been continuously erupting for 35 years, but by the autumn of 2018 it grew quiet and dark. This eruption covered 13.7 square miles and destroyed 700 homes. Although it was a hard time for many people, including myself, I feel fortunate to have been able to witness this amazing event first-hand. It is an event that will never be forgotten; however, we know that Kīlauea isn't finished yet.





All photos courtesy of
Rae Scachette
and
www.usgs.gov