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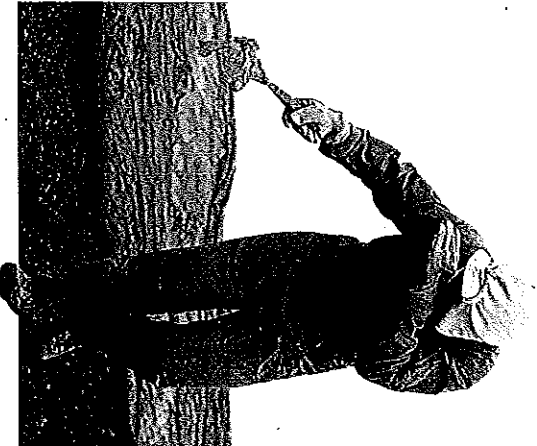
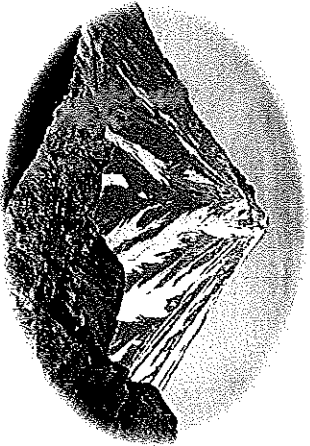
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Eruption!

THE STORY OF VOLCANOES
Written by Anita Ganeri

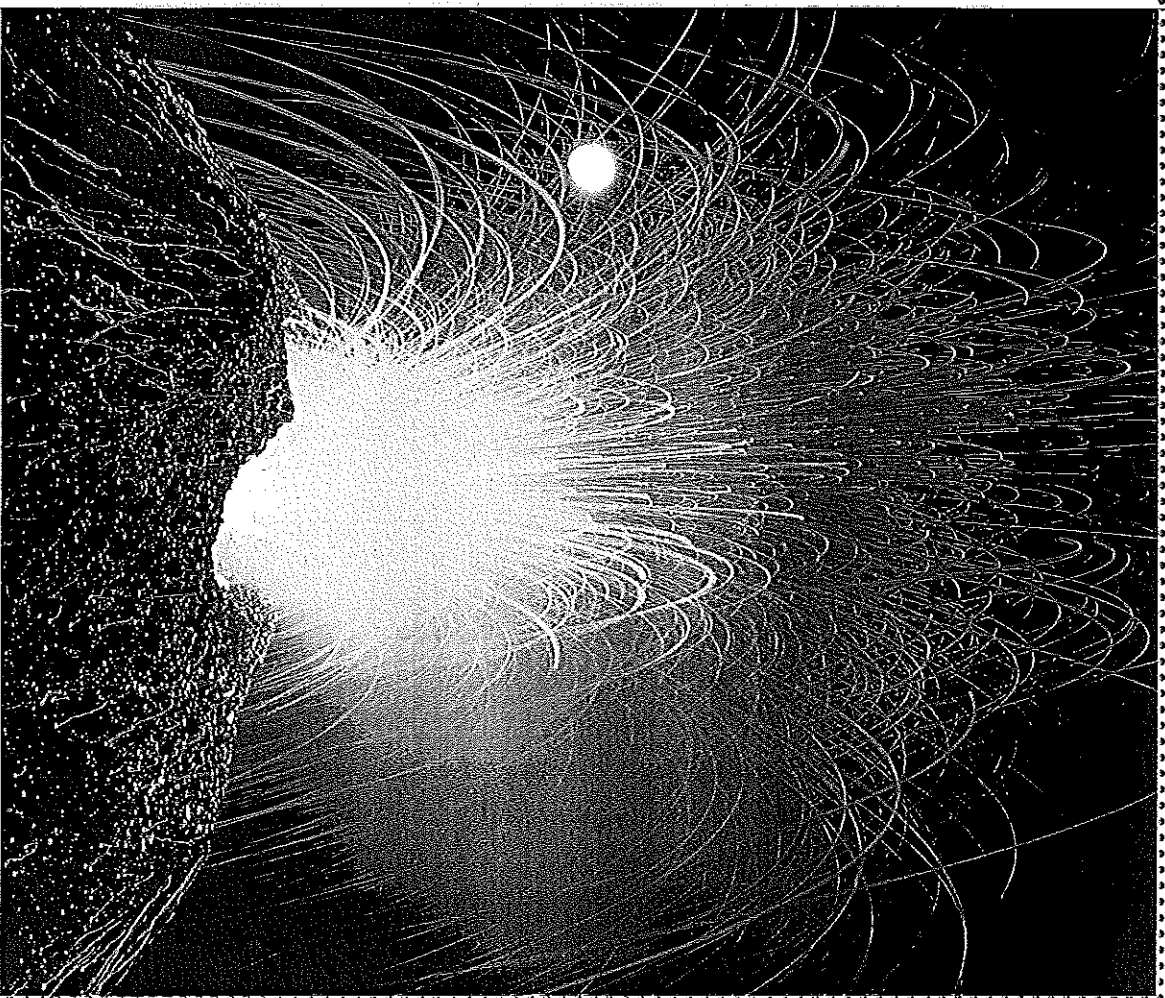


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What looks like a mountain
but spits out fire?

What shoots clouds of smoke
from a hole in its top?

What sometimes explodes
with a BANG?



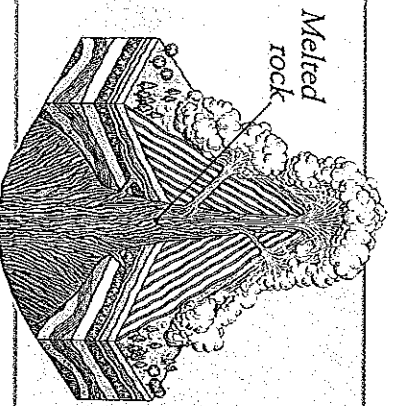
A volcano
and it's starting to erupt!

The story of a volcano starts underground. If you jump up and down on the ground, it feels solid and hard.

But inside the earth, it is so hot that the rocks melt. The rocks are runny like melted butter.

Melted rock

Inside a volcano, the melted rock rises because it is hotter and lighter than the rocks around it.



Sometimes the melted rock bursts up through a hole or a crack in the ground. This is how a volcano begins.





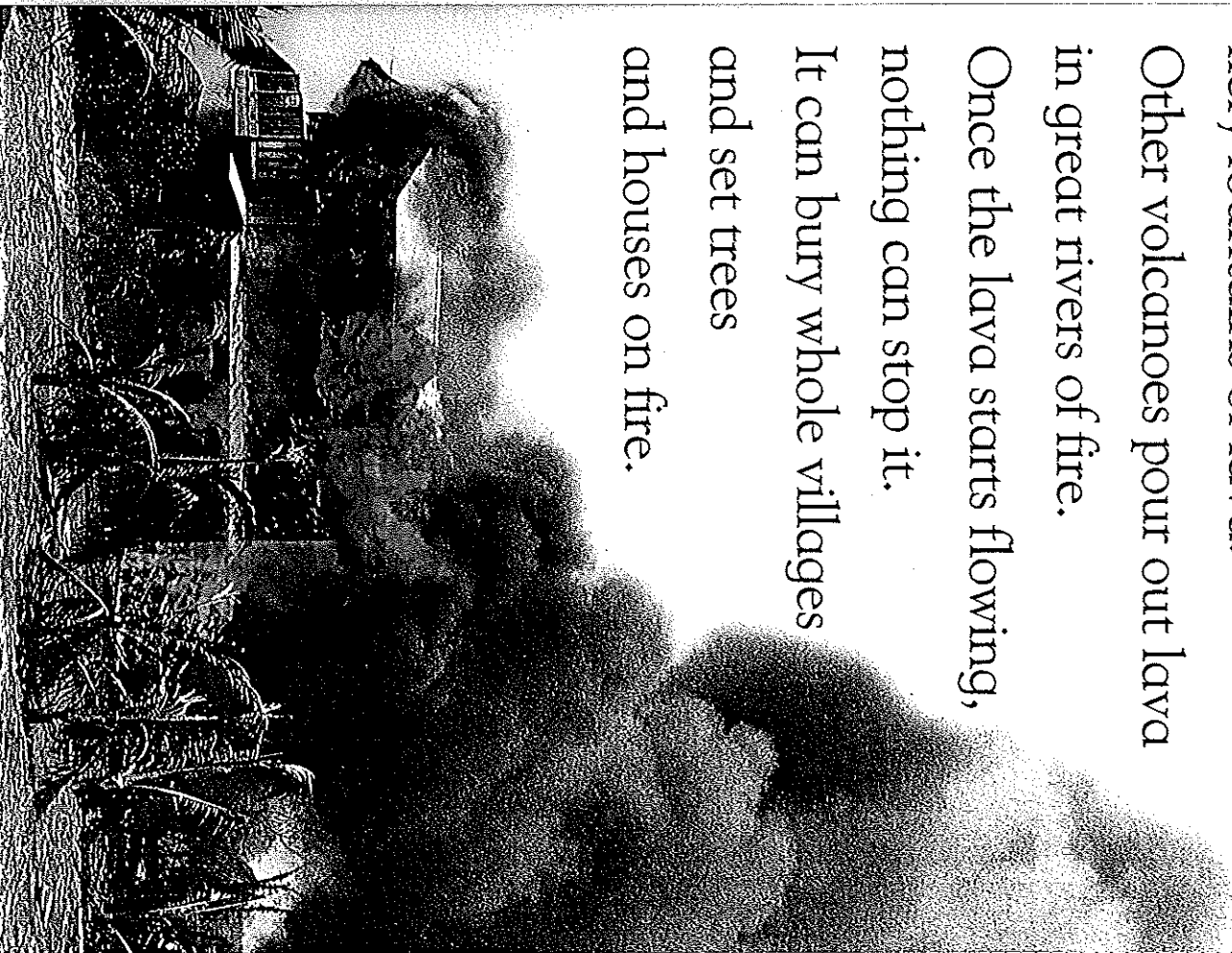
The rock that comes out of
a volcano is called lava.

At first, it is runny
and red-hot.
It cools down
in the air
and turns into
hard, black rock.



Cooled lava

Some volcanoes spurt out
fiery fountains of lava.
Other volcanoes pour out lava
in great rivers of fire.
Once the lava starts flowing,
nothing can stop it.
It can bury whole villages
and set trees
and houses on fire.

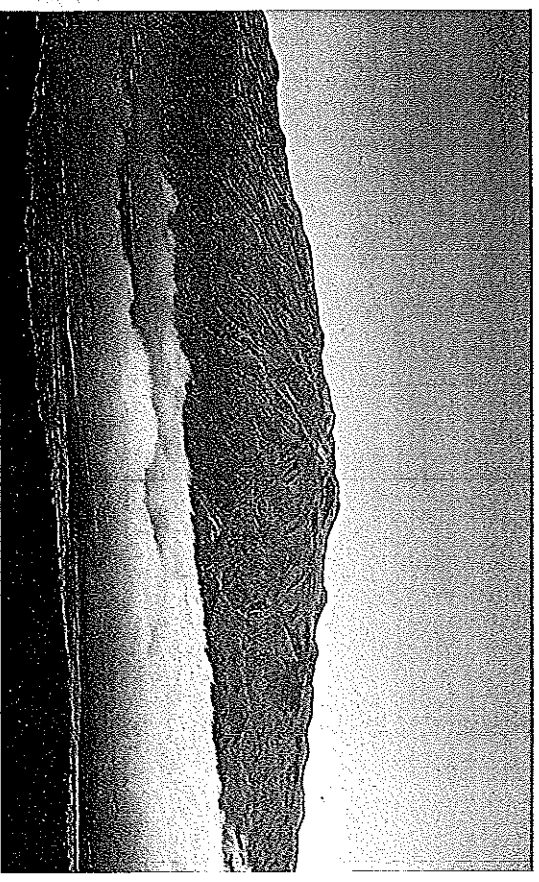
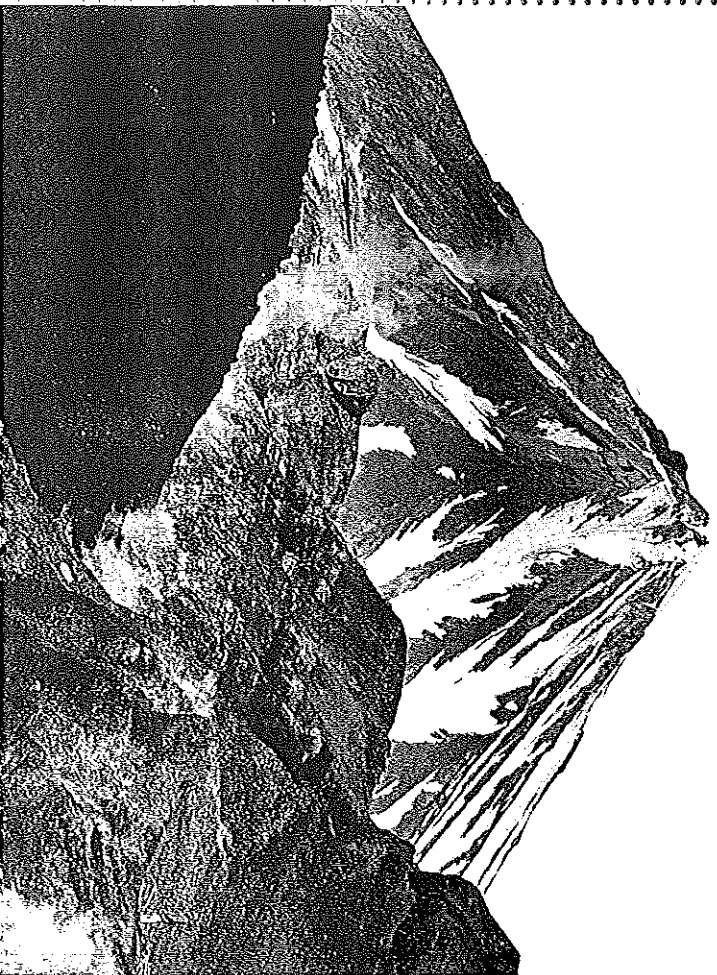


Volcanoes have different shapes and sizes.

Some volcanoes erupt with a bang.

Hot rocks and ash shoot high into the air.

These volcanoes form cone-shaped mountains with steep sides.



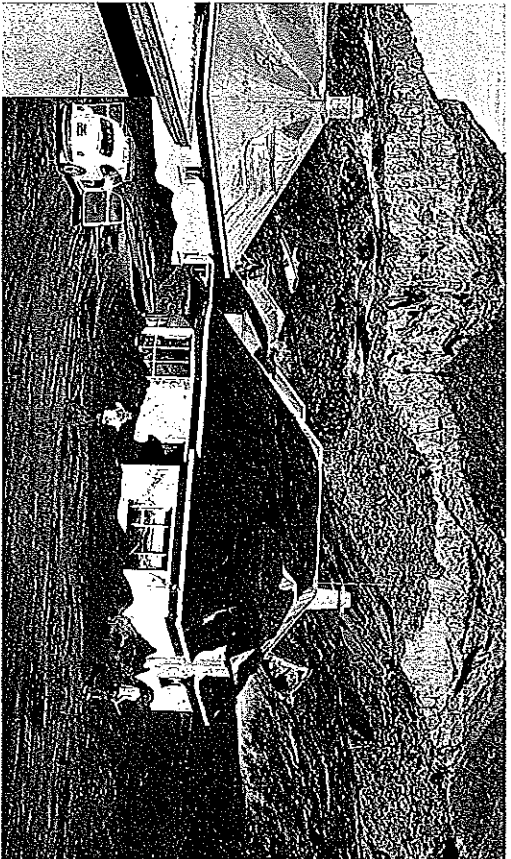
Other volcanoes erupt quietly.

The lava oozes gently out of the top and spreads out all around.

These volcanoes are low and wide.

The biggest volcano
Mauna Loa (MAW-nuh LOW-uh) in Hawaii is the biggest volcano in the world. It is 18,000 feet (5,846 meters) high.





Some volcanoes erupt violently.

They blast out
clouds of hot ash and dust.

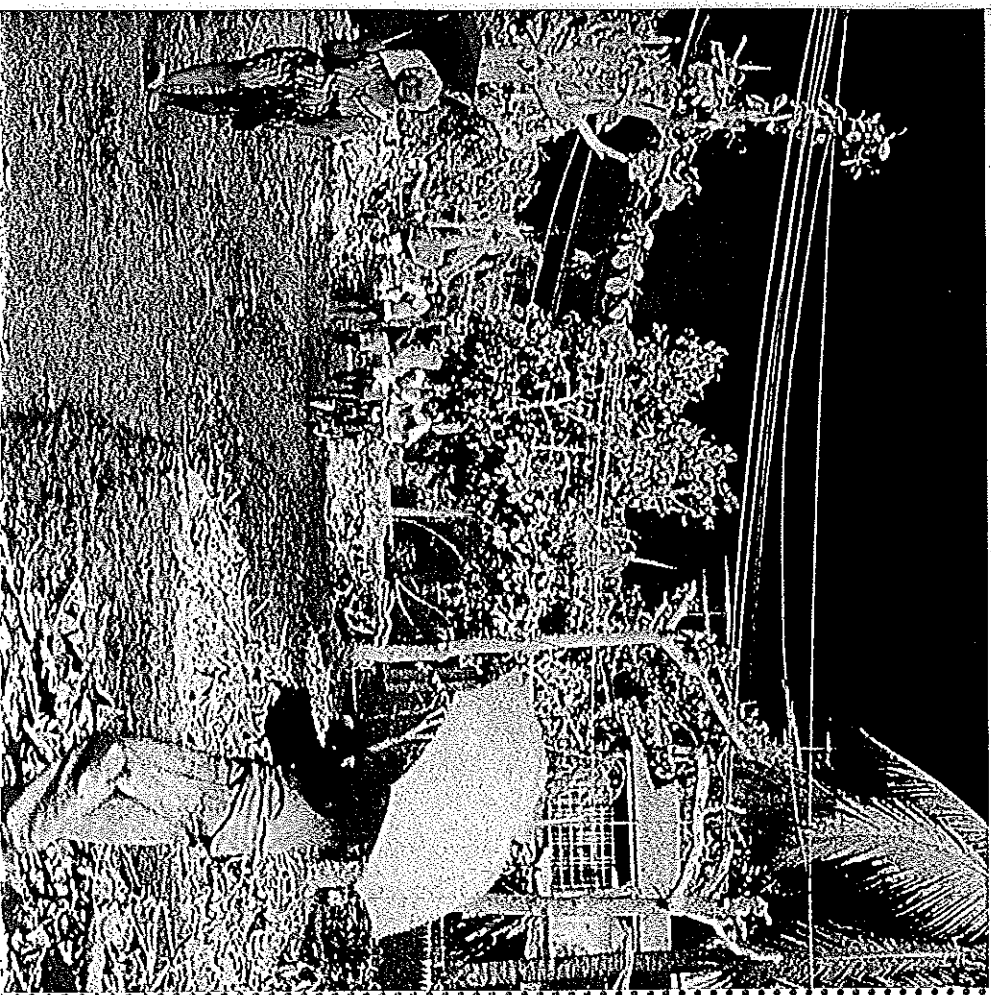
The ash is made of
tiny pieces of lava.

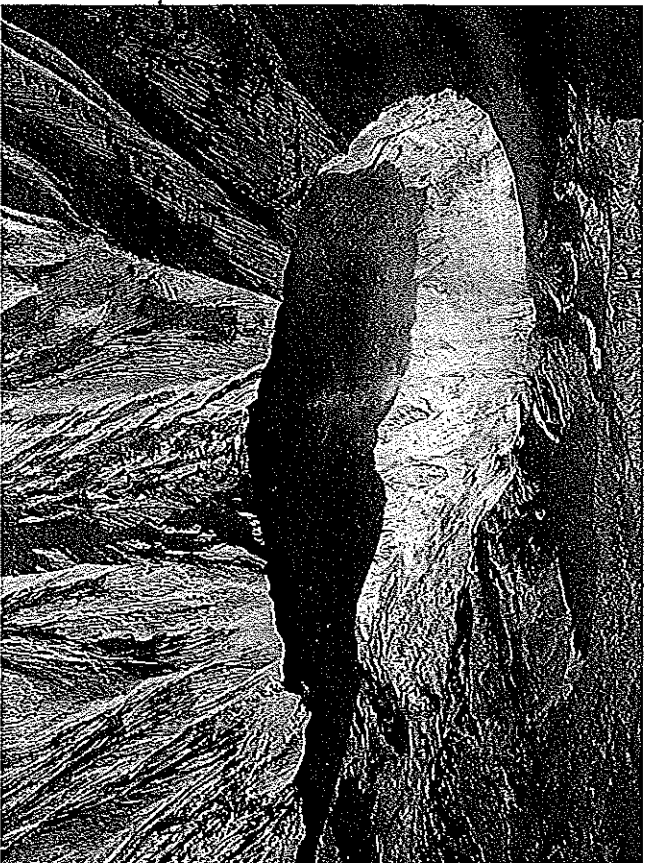
The ash and dust
shoot high into the air.

Some of it lands near the volcano.

It covers buildings and fields
in thick, dark gray powder.

Some ash and dust is carried away
by the wind.
It can block out the sun
and turn day into night.





At the top of a volcano
is a hollow called a crater.

In it is a hole called the vent.
Lava, ash, and dust
come out of the vent.

Some craters are many miles
(kilometers) wide.

When a volcano stops erupting,
the crater is left.
Some old craters fill up with water
to form huge lakes.
Sometimes the crater becomes
a dry, grassy plain.

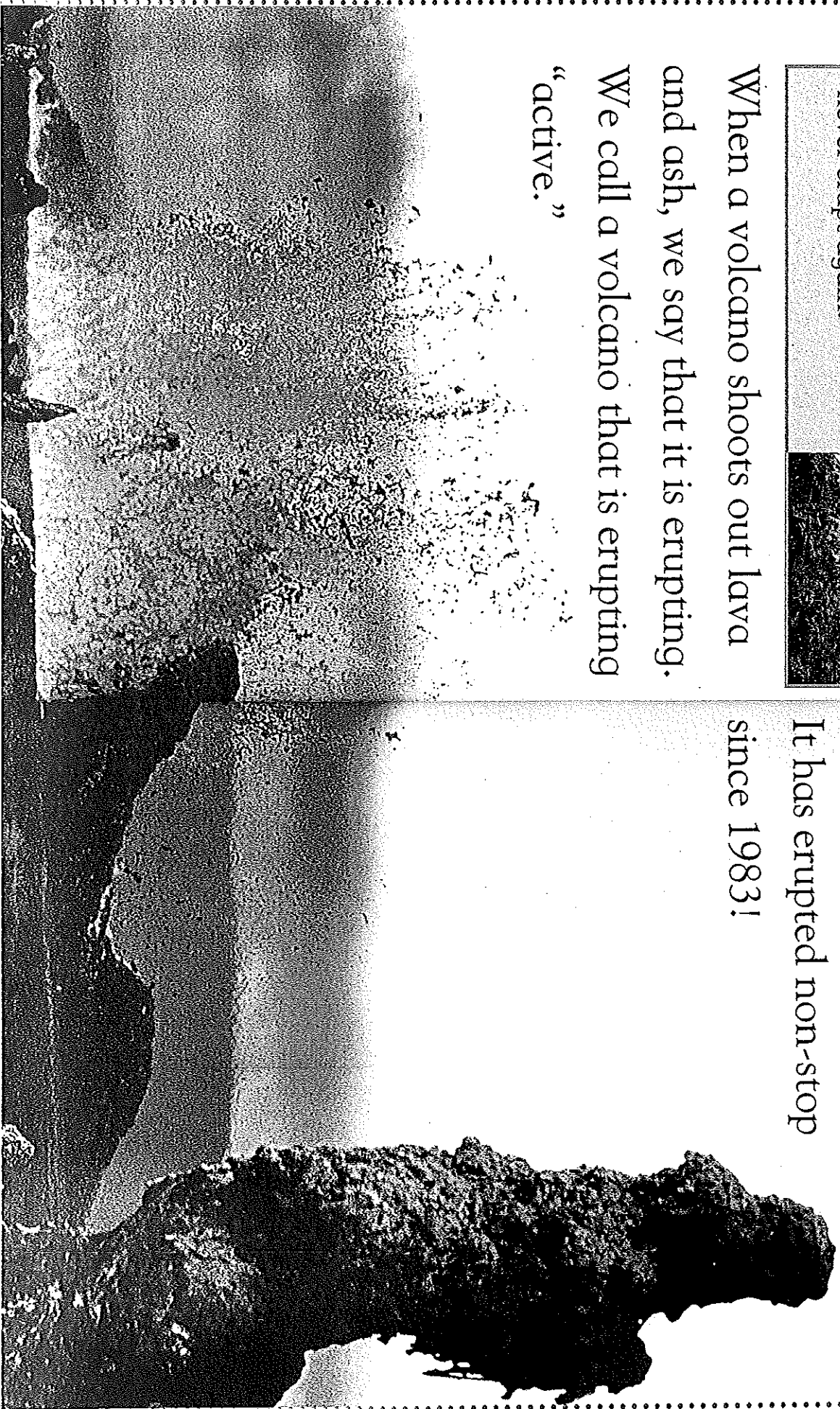


Extinct volcanoes
We call a volcano that has stopped erupting “extinct.” It will probably never erupt again.



When a volcano shoots out lava and ash, we say that it is erupting. We call a volcano that is erupting “active.”

Kilauea (KILL-uh-WAY-uh) in Hawaii is the most active volcano on earth. It has erupted non-stop since 1983!



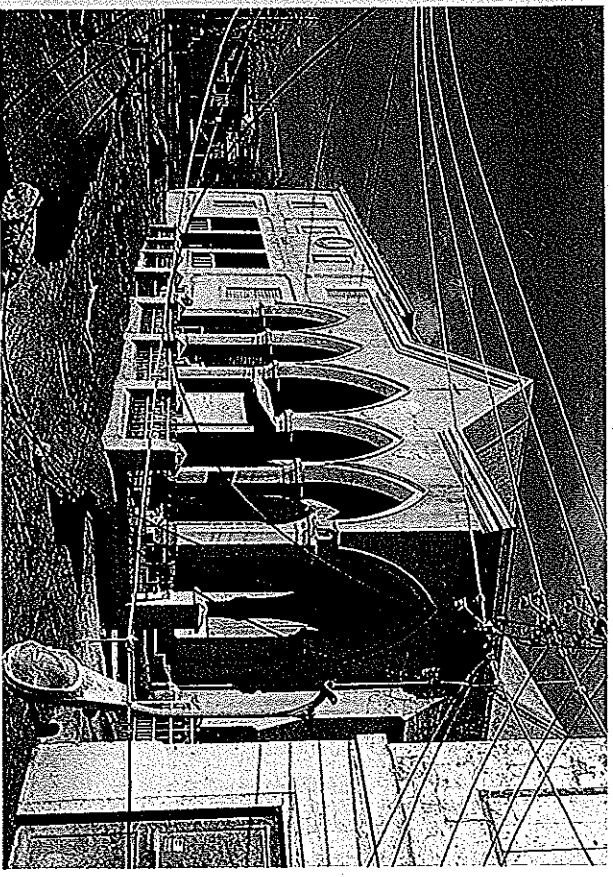
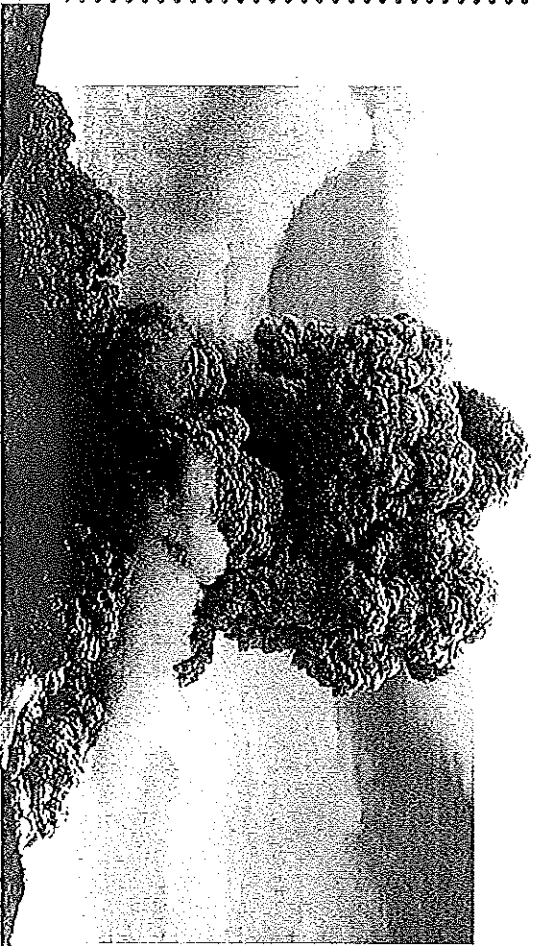
We call a volcano that is not erupting “dormant.”

That means it is sleeping, but it could erupt at any time.

Montserrat is a tiny island in the Caribbean Sea.

It used to be a beautiful place to live.

Then, in 1995, a volcano called Chance’s Peak started to erupt.

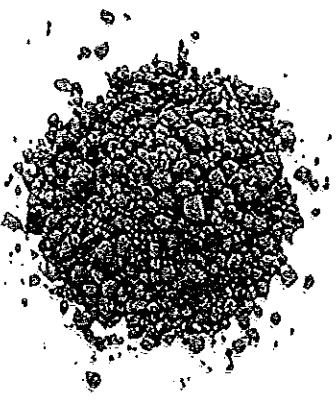


It had been dormant for 400 years.

Many people had to leave their homes as ash fell everywhere.

Some left the island and went to live in another country.

It was too dangerous for them to stay.



Volcanic ash

Mount Vesuvius (Veh-SOO-vee-uss) is a volcano in Italy.

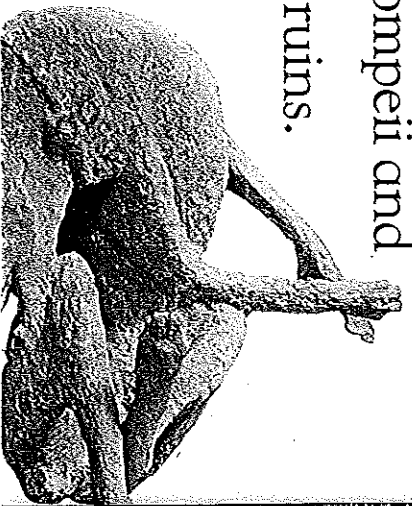
In AD 79, Mount Vesuvius erupted violently, blasting hot ash and gas into the air.

The ash buried the town of Pompeii (Pom-PAY) and thousands of people died.

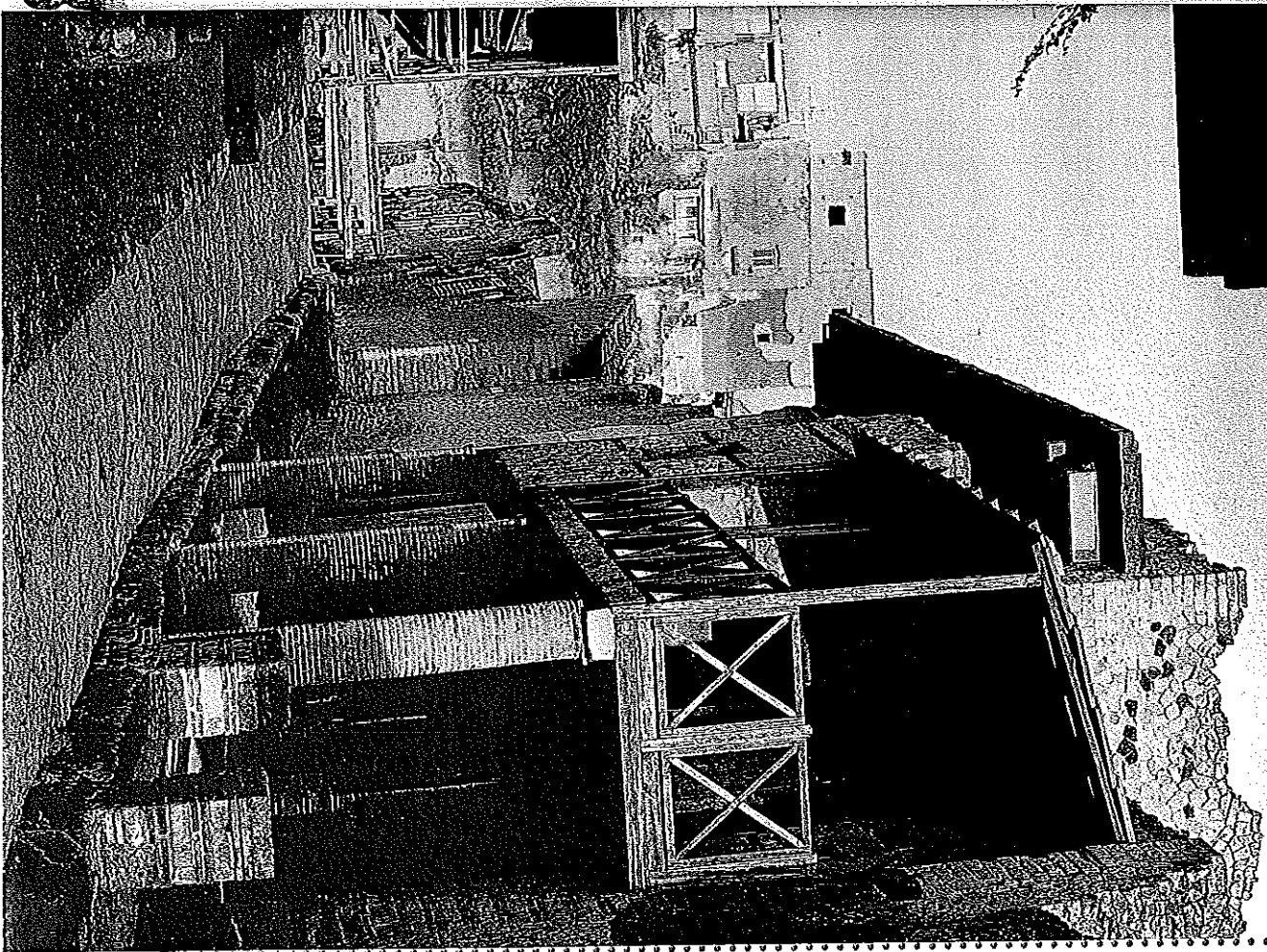
Today, people have cleared the ash away.

You can walk around the streets of Pompeii and see the Roman ruins.

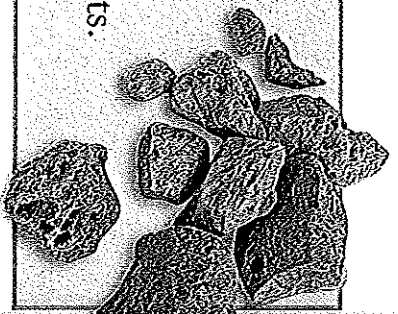
A cast of a dog covered by the ash.



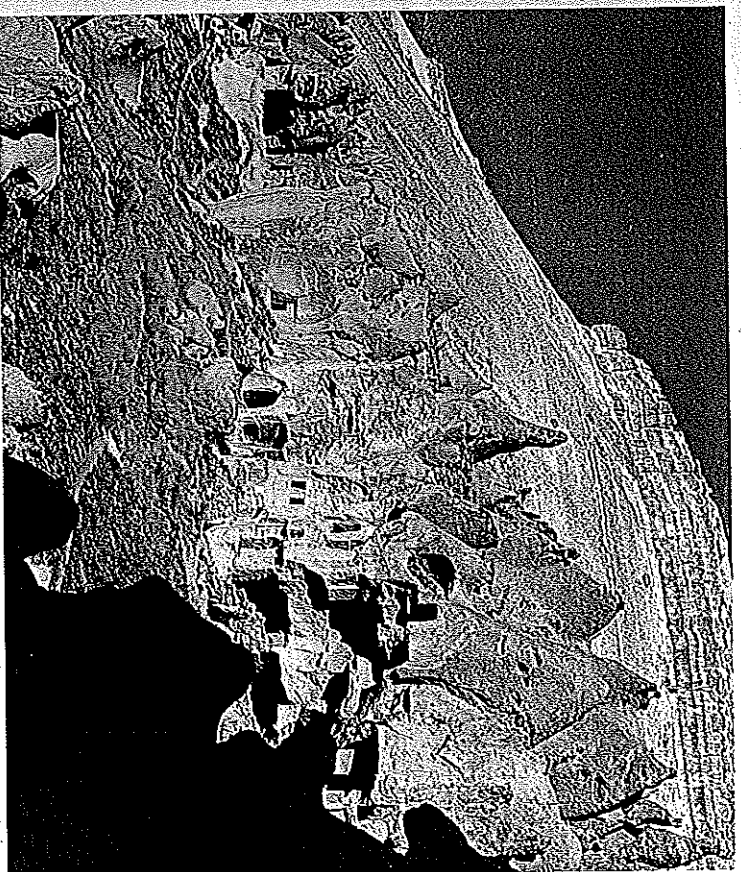
The ruins of the Roman town of Pompeii



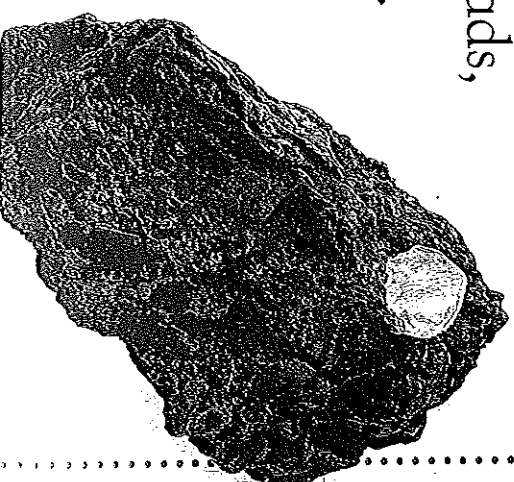
Pumice stone
Pumice (PU-M-iss) stone is a type of lava. It is used for rubbing away hard skin. It is the only type of rock that floats.



Volcanoes can be useful.
On the slopes of volcanoes,
the soil is good for growing crops.



In some places, blocks of solid lava
are used to build roads,
bridges, and houses.
Precious gold
and diamonds
are found in some
volcanic rock.

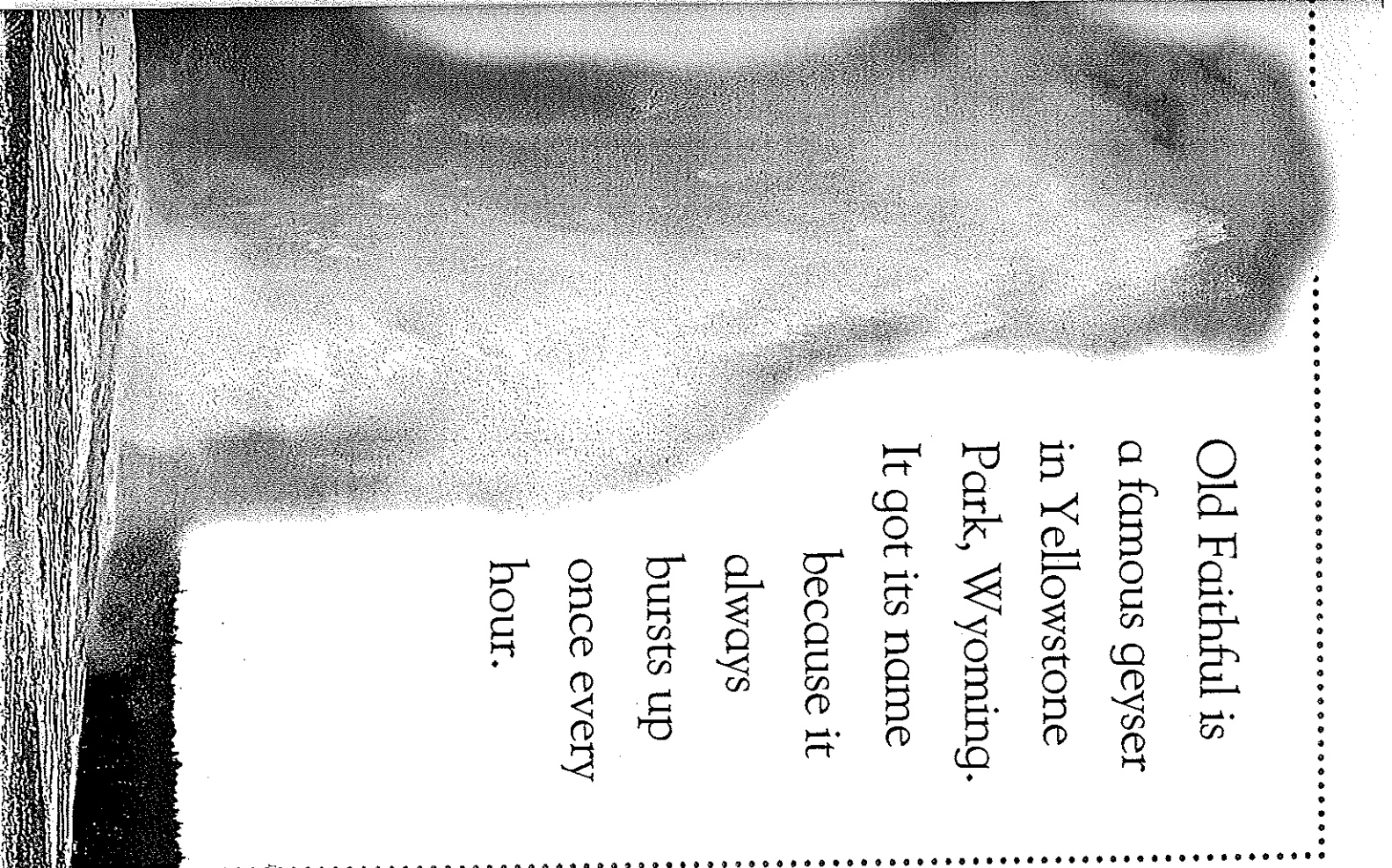
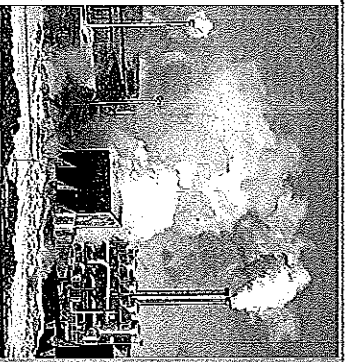


Near a volcano,
the underground rocks get very hot.
The hot rocks heat up water,
which turns to steam.
Sometimes a giant jet
of boiling water and steam
bursts up through the ground
and into the air.
The jet is called a geyser.

Old Faithful is
a famous geyser
in Yellowstone
Park, Wyoming.
It got its name
because it
always
bursts up
once every
hour.

Hot water

In some countries,
people use hot
underground water to
heat their homes and
make electricity.





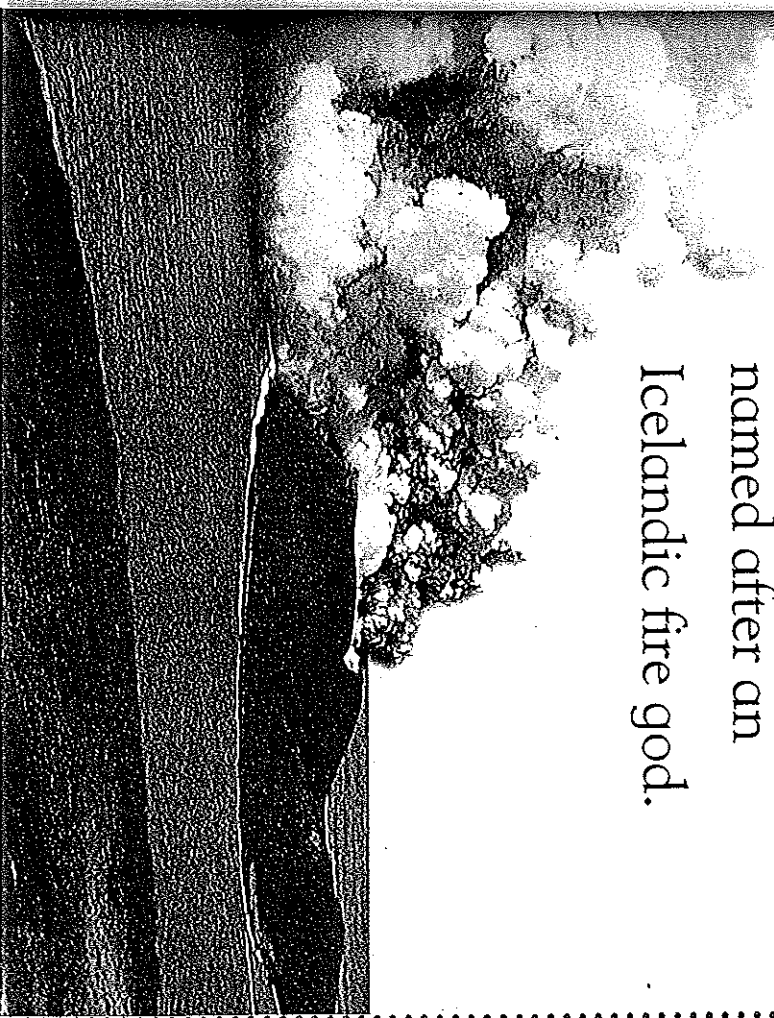
There are lots of volcanoes
under the sea.

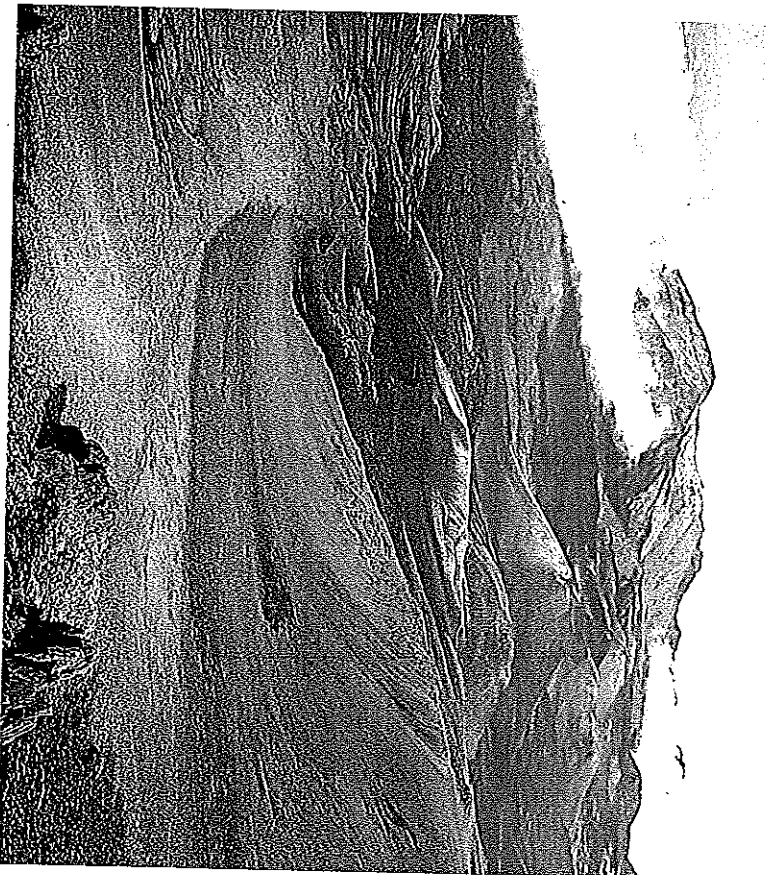
You can't see most of them.

But some underwater volcanoes
are so tall that they poke up
from the sea to make islands.

In 1963, a volcano erupted
under the sea near Iceland.
The sea started to smoke and steam.
By the next day,
the volcano had grown
and a brand-new island had formed.

The local people called it Surtsey,
named after an
Icelandic fire god.

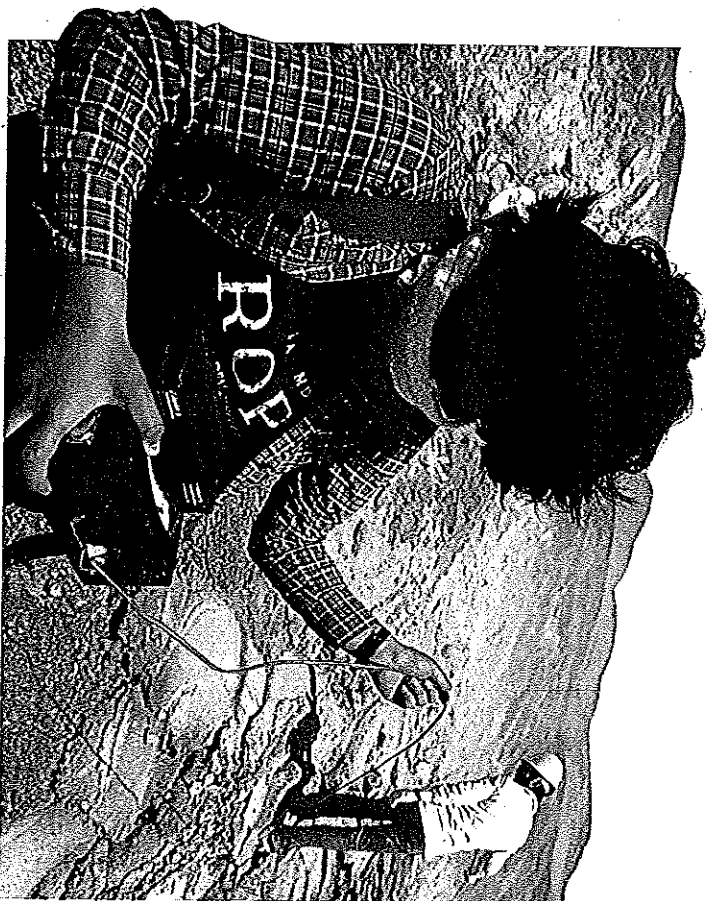




Hawaii is a group of more than 100 islands in the Pacific Ocean. The islands are the tops of huge underwater volcanoes. Some of these volcanoes have two or more craters, but they erupt very gently.

In some places, lava flows into the sea and makes it hiss and steam. Some of the beaches have black sand, which is made from crushed-up lava.



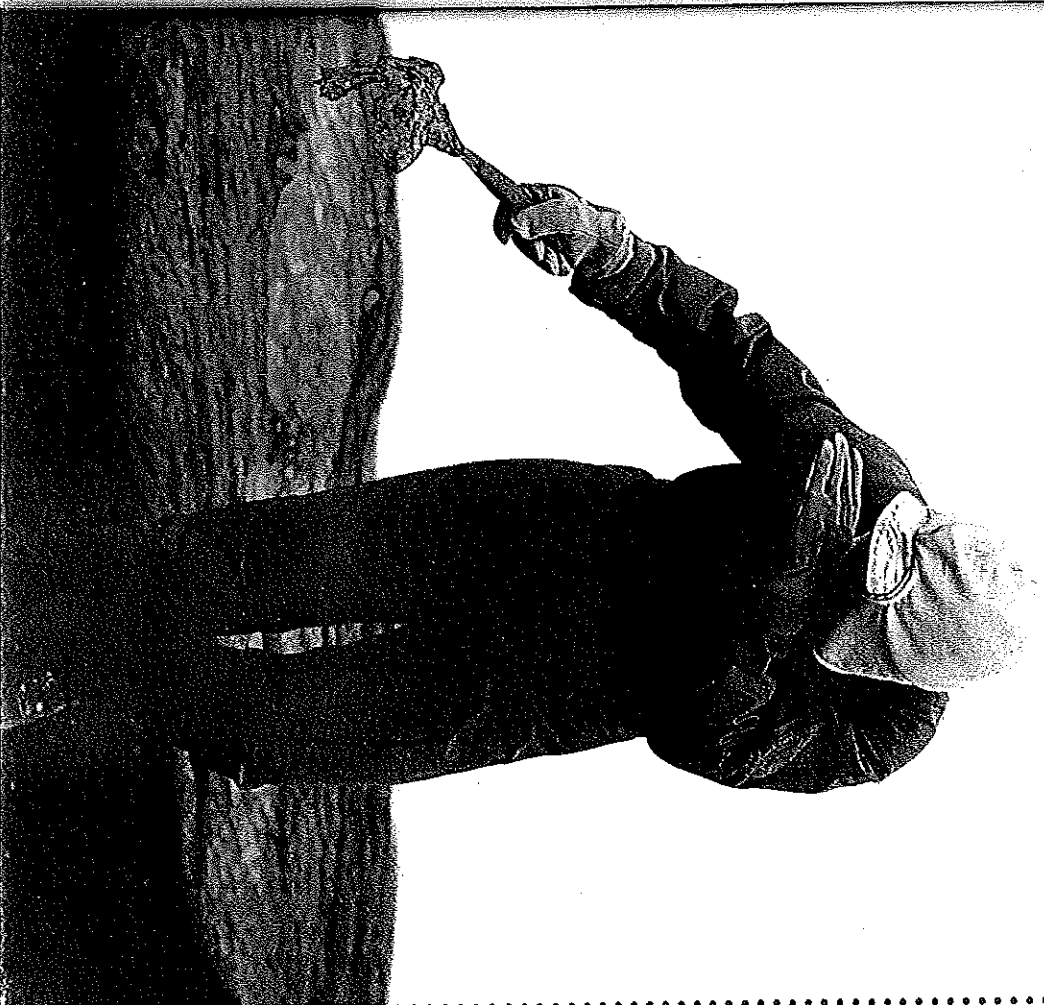


Volcanologists (VUL-can-AHL-uh-gists) are scientists who try to find out how volcanoes work.

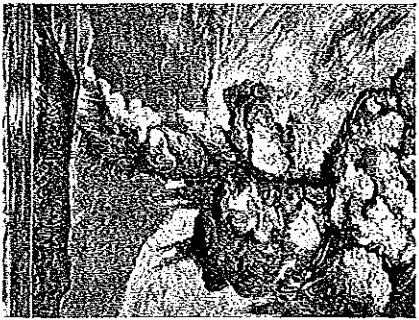
They want to know when volcanoes are going to erupt.

Then people living nearby can be moved to safety.

But volcanologists have not found all the answers yet.
No one knows when a volcano will erupt—until it actually does!



Volcano facts



There are about 1,500 active volcanoes on earth. About 50 of them erupt every year, but most of these eruptions happen underwater.

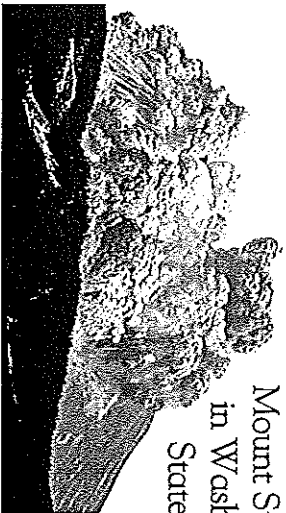
In 1883, the volcano on the island of Krakatoa (CRACK-uh-TOE-uh) in Indonesia erupted with the loudest bang ever heard.

The word "volcano" comes from Vulcan, the Roman god of fire.

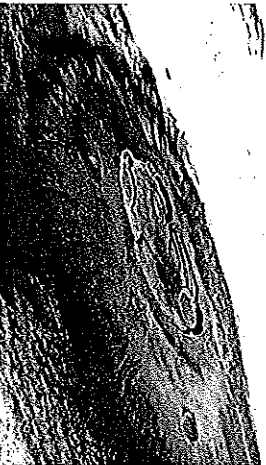


Mount St. Helens is a volcano in Washington in the United States. It erupted in 1980

after being dormant for 123 years. The blast blew 8,000 million tons of rock off the top.



The biggest volcano in the universe is Olympus Mons on Mars. It stands an amazing 17 miles (27 kilometers) high. It last erupted 200 million years ago and is now extinct.



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