

Killer Volcano: The Eruption of Mount St. Helens

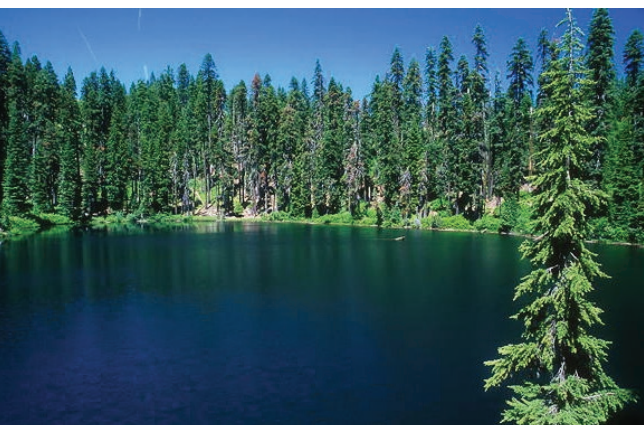
It rises above the lush landscape and provides a majestic ornament to a picturesque scene. However, the beauty of its snow-capped glaciers conceals the sleeping destruction that lies within. In the spring of 1980, a massive volcanic eruption from Mount St. Helens caused devastation on a scale so unimaginably vast that it revised the way scientists who study volcanos think about them. Everyone within a several-hundred-mile radius remembers when and where he or she was at the time it occurred. Many more have heard of the Mount St. Helens eruption but are not aware of the history of this imposing, natural landmark.

Since the 1880s, this region had attracted tourists who came from far and wide, first by horse and buggy and later by automobile, to traverse the beautiful landscape. In the summer, vacationers would fish and swim in the refreshing waters of Spirit Lake, which received the melting ice and snow that ran down from the peaks of Mt. St. Helens. In the winter, adventurers would hike the mountain and ski down its almost perfect slope. Pretty soon, summer cabins, lodges, and youth camps dotted the landscape. It was a recreational paradise.

The area abounded in natural splendors. Its more than 35 million acres of privately owned forest boasted the most valuable timber on the planet. Weyerhaeuser, the leading lumber company in the region, would harvest thousands of Douglas fir trees which provide superior building wood—considered by many to be the finest.

However, beneath the beautiful landscape lay an explosive secret.

Mount St. Helens, a volcano long considered dormant, is situated right along the Ring of Fire, a string of volcanos which circle the Pacific Ocean, ranging from New Zealand to Alaska. The Ring of Fire is home to 452 volcanos, making up 75% of the world's active and dormant volcanos. This horseshoe-shaped area in the Pacific covers 25,000 miles, and 90% of the world's earthquakes occur within its perimeter.



A view of the serene waters of Spirit Lake at Mount St. Helens.



Diagram showing the Ring of Fire, a string of volcanos which circle the Pacific Ocean.

The Awakening

The first signs that something was amiss appeared in early 1980. Steam began to emit from vents in the side of the mountain. Crews of seismologists, scientists who study the movement of the earth's surface, rushed in to monitor the situation. They set up equipment and many monitoring stations on and around the mountain. Before then, one lone seismograph had been placed there, set up by the University of Washington.

Of course, everyone had known, technically, that Mount St. Helens was a volcano. The mountain had been called Low-We-Lat-Klah, "the smoking mountain," by early Native Americans who settled in the sparsely populated region. Toward the middle of the 19th century, European settlers began to witness the occasional violent outburst of this seemingly serene mountain. The volcano was intermittently active for a span of about 26 years from 1831-1857. Some scientists suspect, but have no hard evidence to prove, that the volcano was active for many decades before 1831. It is certain, however, that Mount St. Helens had a previous history of explosive eruptions.

The last eruption at the mountain had been in 1857. For more than a century, the mountain lay quietly sleeping, the picture of natural serenity and beauty. Now, things were beginning to look different.

Reports soon circulated that a series of earthquakes had occurred beneath the mountain. The scientists' alarm heightened when they discovered that the mountain itself was growing. Geologists from the United States Geological Survey (USGS) set to work trying to figure out what would happen next. The most advanced equipment then was primitive by today's standards, but new technology had recently been introduced to make more precise measurements. The USGS brought in special lasers that were used to measure mere millimeters of geologic growth, comparable to the amount your fingernail would grow in a day. The instruments recorded that the mountain was growing at a rate of five feet per day. Scientists were convinced that the lasers, a very new technology, were measuring inaccurately, so they sent the equipment to be recalibrated.

The lasers were correct.

They immediately suspected that the earthquakes were related to volcanic activity and they issued warnings to timber companies to leave the area. Seismologists, geologists and police took these warnings very seriously. As the earthquakes continued, the authorities began evacuating people who lived close to the mountain in a zone that was deemed unsafe in the event of an eruption. Most were skeptical, but obeyed the calls for evacuation. Then, observers began seeing very large cracks forming on the face of the mountain. Magma, which is rock heated by the hot interior of the earth to the point of becoming a liquid (when it comes to the surface it is known as lava), was pooling inside the mountain. Both the heat and the enormous pressure of the magma were causing the earth of the mountainside to cleave.

Few people had thought Mount St. Helens would ever erupt again – certainly not in their lifetime. Vast forests and dramatic landscapes are not things which commonly undergo drastic changes in any

one man's life experience. For those growing up in the Pacific Northwest, the sight of the snow-capped peak of the volcano brought a sense of awe and majesty, but hardly ever a sense of danger.

There were a few geologists who were less surprised, however. Evidence existed of large lava flows and ash pileups from previous eruptions, and scientists believe that approximately 2,000 years ago, Mount St. Helens was much more active. Ash which has been chemically traced to a Mount St. Helens eruption was found as far north as Canada, more than 300 miles away.

The attention of scientists was now



Snow-capped Mount St. Helens as it looked in the years before the eruption.



Mount St. Helens on May 17, 1980, the day before the great eruption.