

# What happened to the mt helen?

[Science](#), [Geology](#)



Mount St. Helens, located in southwestern Washington about 50 miles northeast of Portland, Oregon, is one of many volcanic peaks that dominate the Cascade Range of the Pacific Northwest; the range extends from Mount Garibaldi in British Columbia, Canada, to Lassen Peak in northern California. Geologists call Mount St. Helens a composite volcano (or stratovolcano), a term for steep sided, often symmetrical cones constructed of alternating layers of lava flows, ash, and other volcanic debris.

Composite volcanoes tend to erupt explosively and pose considerable danger to nearby life and property. In contrast, the gently sloping shield volcanoes, such as those in Hawaii, typically erupt nonexplosively, producing fluid lavas that can flow great distances from the active vents. Although Hawaiian-type eruptions may destroy property, they rarely cause death or injury.

Before 1980, snow-capped, gracefully symmetrical Mount St. Helens was known as the "Fujiyama of America." Mount St. Helens, other active Cascade volcanoes, and those of Alaska form the North American segment of the circum-Pacific "Ring of Fire," a notorious zone that produces frequent, often destructive, earthquake and volcanic activity. (1)

#### Basic Data

Location: South central Washington State (Cowlitz County). Latitude: 46°20' N Longitude: 122°18' W.

Type: Stratovolcano

Size comparison: Mt. St. Helens is the smallest of the five major volcanoes in Washington State, and also the youngest of these. It's last eruption was 123

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years earlier.

Elevation : 9, 677 feet before; 8, 363 feet after; 1, 314 feet removed

Main Eruption: May 18, 1980, 8: 32 a. m. (Pacific time)

Pyroclastic flow speed : at least 300 miles per hour (some material traveled much faster).

Pyroclastic flow temperature : As high as 1, 300 degrees F (700 degrees C)

Energy released: 24 megatons thermal energy (7 by blast, rest through release of heat); 50 times more powerful than the Hiroshima atomic blast.

Landslide note : The landslide is the World's largest recorded event EVER!

Ash plume height : Reached about 80, 000 feet in less than 15 minutes

Ash cloud dispersal : Spread across U. S. in 3 days; circled Earth in 15 days.

Deaths : At least 60-65 persons, and thousands of animals, birds, and insects.(2)

On May 18, 1980, at 8: 32 a. m. Pacific Daylight Time, a magnitude 5. 1 earthquake shook Mount St. Helens, releasing an enormous burst of energy, instantly transforming a peaceful wilderness into a hellish landscape. As soon as the eruption was over, the process of rebirth and renewal began. The mountain is still in the spotlight after 20 years. Come and see the story of this amazing wonder of nature in this commemorative of the anniversary of the day that chaos reigned.

October 1, 2004: Mount St. Helens Activity Increases. We probably will not see an event to match the 1980 eruptions of this now-famous volcano, but recent activity has intensified and researchers are watching closely.

What did we learn from it?

We can learn some facts from it. (1) An active volcano can be destructive at any point of time. So you have to be very careful about that. (2) You just can not predict what exactly going to happen in nature. (3) We should except one thing: what ever we have achieved inscience and technologyor whatever, “ NATURE IS THE BOSS AND WILL ALWAYS BE”

Why earth science is important to people?

Earth science affects all our lives. Our landscape has been shaped by natural processes such as tectonics, weathering, and biological activity over billions of years. We use natural materials everyday, everything from building stone and oil to metals such as iron, copper and gold, and even diamonds have all been extracted from the ground. Natural hazards such as volcanoes, earthquakes, floods and droughts can dramatically affect lives. Earth science is the study of all these processes, put simply it is the study of our planet.

Understanding how our planet works is essential if we are to properly manage ourenvironment, and if we are to predict how the environment will change in the future. Earth scientists can monitor changes in our environment, model our impact on the environment and suggest solutions to our environmental problems. Environmental issues being studied by earth scientists include, the effects of water extraction from our rivers, the distribution of pollutants in the landscape and the environmental impact of industrial activity, such as mining and landfill.

Natural hazards such as earthquakes, volcanoes and floods are responsible for many deaths, and for the loss of many more homes and livelihoods. Increased knowledge of natural hazards will improve predictions of the occurrence and scale of these potentially life threatening events, giving people a chance to prepare.(4)

#### REFERENCES:

(1) The history of Mt Helen is taken from [http://www. weathersage. com/storms/mthelen/](http://www.weathersage.com/storms/mthelen/)

sited on May 18, 2007

(2) Basic data of Mt Helen is taken from

[http://ublib. buffalo. edu/libraries/asl/guides/msh. html](http://ublib.buffalo.edu/libraries/asl/guides/msh.html) sited on May 18, 2007

(3) Why earth science is important to people? Is taken from

[http://www. nerc. ac. uk/research/areas/earth/importance. asp](http://www.nerc.ac.uk/research/areas/earth/importance.asp) sited on May 18, 2007