BOOK TALK

Mistakes Led to Needless Deaths From Worst Volcanic Blast

There were signs that an eruption was coming, but no one predicted how big it would be.

The 1980 eruption of Mount St. Helens released more energy than Hurricane Katrina, making it America's most powerful natural disaster in recent memory.

PHOTOGRAPH BY FOTOFEELING, [illegible]

By **Simon Worrall**

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Government officials had plenty of time to ensure that everyone was safely evacuated from the area around Mount St. Helens, the Washington State volcano that erupted on May 18, 1980. The mountain had been showing signs that it might blow for months before that fatal Sunday. But logging interests, which owned most of the land around the volcano, were at odds with geologists over how big the danger zone should be. And no one anticipated the strength of the eruption, which spewed 540 million tons of ash into the air and killed 57 people. [Find out why Mount St. Helens is still dangerous.]

In *Eruption: The Untold Story Of Mount St. Helens*, Steve Olson examines the worst natural disaster to strike the United States in recent times and recounts heart-stopping stories of survival and death. Talking from his home in Seattle, he explains how a report that sat unsigned on Governor Dixy Lee Ray's desk could have saved lives; how a family of four were miraculously plucked by helicopter from the Green River; and what scientists have learned about how nature responds to catastrophes. [See pictures of Mount St. Helens, before and after the blast.]

Where does Mount St. Helens rank among American disasters and volcanic eruptions like Krakatoa and Pompeii?

It was one of 50 large eruptions of Mount St. Helens that have occurred in the past 500 years and the largest, most powerful natural disaster that has occurred in the modern United States. Katrina was an extremely powerful storm. But the amount of energy released by Mount St. Helens was even greater.

The thing that surprised geologists was that the blast devastated a large area. That caught them off guard and was the reason so many people were killed. But it was incredibly lucky that the eruption occurred on a Sunday morning. If it had happened during a weekday, hundreds of loggers would have died. I talked to people who said, "If it had been Monday through Friday during the day, I wouldn't be here talking with you right now."

[illegible]

Put us on the ground on the day of the eruption—and describe the events leading up to it.

For approximately two months before the eruption there had been this succession of events in the mountain, starting with the initial earthquake and followed by subsequent earthquakes. One of the complications was that geologists were uncertain what the mountain was going to do. There were a lot of predictions and on the basis of those predictions, government officials were trying to make warnings and draw danger zones around the mountain. But the mountain was inherently unpredictable up to the cataclysm of May 18.

One of the remarkable things about this eruption is that it occurred on a clear, cloudless, sunny Sunday morning. Thus, it was the first event of this nature to be extensively photographed and videotaped. A husband and wife geologist team, Keith and Dorothy Stoffel, was flying over the mountain in a small airplane when the big eruption started. They saw a crack that formed across the top of the mountain, and then the whole north side of the mountain started sliding down toward Spirit Lake and the Toutle River, 3 to 4 miles away. No geologists had ever seen a landslide of this magnitude before. It was the largest landslide in recorded human history.

A number of mistakes were made in the run-up to the disaster that caused loss of life. Tell us about them.

It is true that mistakes were made, which resulted in the danger zone being smaller than it should have been. Partly it was because geologists in the 1980s did not have the technology or information to know the range of ways in which Mount St. Helens and other volcanoes can react. There has never been a lateral blast of this size and that caught the geologists by surprise.

The eruption spewed 540 million tons of ash into the air, darkening the sky and causing streetlights to be switched on some 300 miles away.

PHOTOGRAPH BY EVERETT COLLECTION [illegible], ALAMY

It's government officials, though, who determine the risks to human life and property posed by a volcanic hazard like this. And in setting up the danger zones around the mountain, local officials decided not to impose restrictions on the logging of old growth forests being done by the Wyerhaeuser company around Mount St. Helens. As a result, the danger zone was much too close to the volcano. At its closest, the danger zone was only three miles away. Pompeii, which I visited a couple months ago, is six miles from Vesuvius—and was destroyed within a few hours of the eruptions.

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