Smithsonian Journeys

Field Notes

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Volcanic Hazards of Southern Peru

In 1997, a team of scientists from the Smithsonian Institution's Center for Earth and Planetary Studies (CEPS) at the **National Air and Space Museum** (NASM) traveled to the Andes of southern Peru to investigate reports of destructive earthquakes triggered by Sabancaya, an historically active volcano.

The extent of damage was determined by interviews conducted in the Colca Valley and observations on foot. One village, Maca, was destroyed by an earthquake in July 1991, which coincided with an eruption of Sabancaya. Reconstruction was ongoing. However, Maca and fourteen other villages in the valley remained under threat from Sabancaya, one of the most active volcanoes in Peru. The CEPS team undertook surveys and observations of the volcano and the rural communities it directly threatens.

CEPS specializes in Earth studies and planetary geology using remote sensing. One of the main objectives of the project was to examine the geologic history of Sabancaya.

Over one million people live among the volcanoes of southern Peru, and they are a population at risk. For this project CEPS researchers used satellite imagery and Global Positioning System (GPS) equipment and other tools, to study a remote and potentially deadly volcano and the volcanic hazards facing the Colca Valley. The team returned in 1998, using a combination of remote sensing and ground techniques to better understand hazards from volcanic eruptions and seismic activity.

Active volcanoes in southern Peru pose a serious threat to rural populations as well as large urban centers. Understanding the histories of these volcanoes, including characteristics of past eruptions, is essential to assessing the hazards they pose today and in the future.

For more information you may visit these web sites:
www.nasm.si.edu
www.nasm.si.edu/research/ceps/