



Volcano Fatigue

Mount Vesuvius may be getting ready to blow, but Italians living on the mountain are oddly complacent.

WEB EXCLUSIVE

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March 16, 2006 - While Giuseppe D'Emilio is drawing down cappuccinos at the Ercolaneo coffee bar, Mount Vesuvius may be on the verge of erupting beneath his feet. D'Emilio, though, doesn't look like a man who is worried. He has no plans to leave the mountain, despite the Italian government's offer of aid. "You can't live your life like that," he says. "What if I leave and the volcano never erupts? Think of all I would have lost."

But what if it does erupt? In a recent issue of the Proceedings of the National Academy of Sciences, geologists put the chance of an eruption by the end of this calendar year at a whopping one in two. What does D'Emilio think about that?

"I'll worry about that when I have to," he says. "Want another cappuccino?"

This penchant for taking difficult news in stride, which seems to be a national trait, is giving geologists and the Italian authorities *agita*. Surely, Italians are particularly comfortable living with risk. This, after all, is a society that has yet to embrace such proven safety precautions as seatbelts, *motorino* helmets and sunscreen. It's not that D'Emilio and other locals don't believe in the power of the volcano. They've been hearing for years that the volcano is not dormant, just asleep, and each update of the scientific odds of eruption brings a round of rolled eyes and shrugged shoulders. In 2002, when scientists at the Vesuvius Observatory warned that the mountain was starting a new cycle of eruptive activity, few people even took notice. Even so, locals seem content to put their faith in the ability of the local and national government to orchestrate an evacuation, should the mountain finally decide to erupt for real. The trouble is, the government is hopelessly behind in planning for an evacuation, and it admits to having no plans to deal with a worst-case scenario—an eruption with little seismic warning.

As a practical matter, it's difficult to see how residents would be able to get off the mountain in an emergency. Early on Sunday morning, after a snowfall at the top of Vesuvius, gusty winds kicked up a blinding ground blizzard in the villages and roads near the peak. Police had to evacuate 50 or so cars from the top of the mountain, but the operation was a farce. The civil authorities slid around on foot like Keystone cops trying to stop the Alfa Romeos and Fiats on ice with a few handheld lollipop stop signs.

Within minutes, the whole scene turned into an automotive curling match. Getting the drivers who were speeding up the mountain to turn their cars around and head back down the two-lane hairpin road in an orderly fashion proved even more ludicrous (and entertaining). Finally, after more than an hour of truly creative mountain-road maneuvers in the slushy snow, someone at the bottom got word and put up a roadblock to stop the train of locals from coming up to see the snow. What would have happened, though, if this had been not snow but burning ash or hot lava?

According to the civil authorities in Naples, who are fed real-time data from the volcanologists at

the Vesuvius Observatory, a safe distance down the mountain from the crater, they hope to have as much as a 27-day advance warning in order to evacuate the 600,000 residents who live in the so-called "red zone" within a 2.7 mile radius of Vesuvius's cone. If given about a month to plan, they say they can get all these residents to safety within seven days.



There's no guarantee that geologists will be able to predict an eruption seven days out. Michael F. Sheridan, a volcanologist at the University of Buffalo in New York and a coauthor of the study, warned the civil authorities in Naples last week that recent disasters like Hurricane Katrina in the United States should be a lesson to those planning a similar style advanced-warning evacuation. He told the BBC, "There have been notable cases recently where disaster planners have not taken into account the worst-case scenario and this eruption would certainly be one of those."

The recent history of Italian volcanic eruptions provides ammunition for both sides. No Italian volcano in the last few decades has erupted without some sort of pre-eruptive seismic activity. Just before the July 2001 eruption of Sicily's Mount Etna, the volcanologists there were begging to be heard. They had detected seismic activity for months and, more importantly, they were right on target. Then Mount Etna erupted for 24 days, spreading lava over a three-mile area. On the other hand, the same volcanologists were caught off guard just a year later, when seismic activity began just two hours before a much more dangerous Etna eruption that lasted nearly three months, giving civil authorities almost no time to evacuate. If Mount Vesuvius were to erupt as quickly as Mount Etna, it would put Naples, a city of 1 million, in danger. Right now the official plan to evacuate Naples is based on an eruption that occurred in 1631, which didn't even come near the city. Officials fear that most Naples residents would take off in their cars northbound on the A1 highway, the so-called the Autostrada del Sole, where traffic, even in the best of times, is often bumper to bumper.

Even if residents get a more specific warning, there's no telling whether or not they'll heed it. "They've been warning us about this for years," complains Giuseppe d'Avanzo, a long-time resident of Torre del Greco on the mountain's lower flanks. "At a certain point you've got to assume they don't really know. To move now doesn't make sense. I'll leave when they actually know it's going to happen." Scientific predictions, however, almost always come couched in the language of probabilities rather than certainties.

Some Italian authorities may have nurtured this skepticism. The head of INGV, Italy's volcanology institute, Enzo Boschi, downplayed recent headlines that there was an imminent danger. "Vesuvius is the most studied volcano in the world," he told NEWSWEEK. "The scenarios examined with the help of the Civil Protection department are the most accurate possible, and the evacuation plans will not be changed."

A short jaunt around the foothills of this monstrous mountain, however, is enough to make a believer out of anybody. If the ruins of Pompeii and Herculaneum, which bore the brunt of the most famous eruption in A.D. 79, aren't chilling enough, a recent discover in Nola, just outside of Naples to the north, has given some scientists grave doubts about the safety of Naples. Archaeologists here recently found evidence of a "mass exodus" that resulted not from the famous A.D. 79 eruption, but from one 2,000 years earlier during the Bronze Age. An unearthed collection of footprints and the petrified carcasses of grazing animals and fleeing humans have shown that Vesuvius's wrath can reach farther than anybody thought likely. Chances are very good that it could happen again, says Dr. Giuseppe Mastrolorenzo of the Vesuvius Observatory. "Catastrophes," he says, "are often caused by the most extreme events."

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