

Editorial

A DEONTOLOGICAL CODE FOR VOLCANOLOGISTS?

The recent eruption of the Soufrière on the island of Guadeloupe and the extraordinary sequence of events it entailed seem to have revealed a good deal more about the political and sociological problems faced by volcanologists than about the nature of the eruption itself. The dispute raised by conflicting views and precautionary measures recommended by various geologists reached the international press and attracted wide attention.

Apart from the lack of agreement among "experts", which has long been a source of embarrassment in our profession, the incident raised the basic question of the responsibilities of volcanologists who find themselves called upon to assess volcanic hazards.

During the mild phreatic eruptions and associated seismic activity that occurred over a period of months in 1976, sundry geologists who visited the island were asked to evaluate the risk to the populace. Although the volcanologist in charge firmly maintained that there was no serious danger, other geologists who had little or no experience with active volcanism took a more pessimistic view. Faced with this divergence of opinion, the authorities decided to take the most conservative possible action and proceeded to evacuate 73,600 persons for three and a half months.

Haroun Tazieff, who probably has as much experience with active volcanism as any person in the world, advised the government officials that there was no cause for alarm and that there would be no catastrophe like that which occurred at St. Pierre in 1902, as several persons feared. He was correct, of course. Nothing happened. Nevertheless, the intervention of self-appointed experts and the confusion generated by conflicting interpretations resulted in wholesale disruption of the life and economy of the island.

Examples of this type of exaggerated response are also seen in the costly over-design of certain industrial installations, such as nuclear power plants that have been proposed in volcanic regions. The conservatism of planners who are sensitive to any allegations of unsafe design and wish to guard against every possible hazard can easily be exploited by anyone who is motivated by a desire to obstruct the project and is able to do so by advising prohibitively expensive precautions against risks that are exceedingly unlikely but difficult to disprove. As Tazieff points out (*Nature* 269 (1977) 96–97), there is need for a deontological code to guide volcanologists, and this code should include a stricture against exaggerating hazards and recommending excessively conservative precautions regardless of the economic and social consequences they entail.