

Kelman, I. 2006. "Traditional Volcanic Knowledge". Cities and Volcanoes Commission Newsletter, April 2006, p. 2.

Full Text:

Volcanology ethics was discussed in the previous newsletter (December 2005). One aspect is the role of traditional knowledge. The core of the World Intellectual Property Organization's definition of "traditional knowledge" is "knowledge systems, creations, innovations and cultural expressions which have generally been transmitted from generation to generation; are generally regarded as pertaining to a particular people or its territory; and are constantly evolving in response to a changing environment". For specific volcanic events, or volcano-linked cyclic or ongoing environmental processes, traditional knowledge yields deep insights into the past along with identifying trends to the present.

Understanding a volcano and its potential impacts therefore becomes a collective of informal stories (including myths and legends), field observations, visual arts, computer models, names and symbols, music and dances, conceptual models, oral histories, personal diaries and letters, and mathematics--amongst other sources. International peer-reviewed journals have as much to offer as chatting with locals for hours or days. Archaeology, anthropology, history, and sociology sit alongside physics, geology, and chemistry to understand and explain volcanic activity and impacts (plus other fields and their combinations).

In the same way that some scientific knowledge becomes outdated through new research and new paradigms, some traditional knowledge fails to stand up to scrutiny or is dwarfed by other factors. Western science offers millions more years of volcano understanding than traditional knowledge. Appeasing volcano-inhabiting deities through human sacrifice is unacceptable. But scientists' deaths, such as during sample collection in active craters, are equally unacceptable. Both methods have faults.

A balance is needed, melding tradition and modernity. For volcanic knowledge, that means recognizing the strengths and limitations of both Western science and traditional knowledge. Their combination, without one dominating the other, provides the most complete and useful understanding. That incorporates sensitivity to local customs while learning how to communicate Western scientific knowledge and traditional knowledge to various audiences. An ethical approach demands recognizing the strengths and contributions of both knowledge systems.

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