

# BETWEEN THE KING AND THE SCIENTIST: MOUNT MERAPI ERUPTION, EARLY WARNING SYSTEM, AND THE POLITICS OF LOCAL KNOWLEDGE

**Fadjar I. Thufail**

Research Center for Regional Resources, Indonesian Institute of Sciences

October 26, 2010. For several days, Mt Merapi had been active, thick smoke had been billowing to the sky and lava flowing along the slope. Volcanic tremors were frequent, indicating an upcoming eruption. People had been evacuating their villages on the mountain slope, moving to government-built shelters a few kilometers down. But in Kinahrejo village, the village closest to the volcanic crater, a man decided to stay and refused to leave despite request from his fellow villagers and instruction from the rescue team. This man was *Mbah* Maridjan,<sup>1</sup> a respected traditional leader, a man called the 'guardian' of Mt Merapi. At 17:35, the mighty Mt Merapi erupted, sending pyroclastic ashes and cloud to the sky, followed by pyroclastic cloud running down the slope with lightning speed, destroying anything in its path, including Mbah Maridjan's house and a small mosque near the house where his body was later found. When the rescue team reached the site, they found him in a kneeling position, facing the south direction as though he was praying when the heat wave struck him.

Mt Merapi lies in Central Java province, about 40 km north of college town Yogyakarta. Archaeological remains show the oldest recorded eruption dated back to the 9th century A.D. The 2010 eruption was among the biggest events, it produced pyroclastic cloud that wiped out anything 20 km south of the volcano. Volcanic ash covered areas within the radius of 30 km from the mountain. 275 people died and 287,699 took refuge at temporary shelters. The estimated damages cost USD 2,500,000 of rice fields, gardens, and community forests, and USD 647,000,000 of protected forest and natural parks.

In addition to the scale of destruction, the 2010 eruption left a deep cultural resonance for people living in Yogyakarta area and a dilemma among national scientists. When Mbah Maridjan surrendered to the power of the mountain after successfully 'guarded' the mountain for many years, his sacrifice provoked an emotional controversy. Scientists and government officials blamed Mbah Maridjan for giving a bad example by refusing to evacuate despite the emergency warning. On the other hand, families of Mbah Maridjan, local villagers, and cultural activists defended his decision to stay as he was simply performing his sacred duty as the guardian of the volcano. The public controversy stems from a more critical debate over the authority of knowledge in shaping disaster early warning system.

---

1 *Mbah* is a Javanese honorific title assigned to a respected and wise person. It literally means elder or grandfather.

Research on local knowledge as intangible cultural heritage often neglects how knowledge reflects a complex assemblage and negotiation between ‘traditional’ and ‘scientific’ forms of knowledge. On the one hand, government scientists and policy makers devise a tool to rationalize early warning knowledge regardless where it is applied. On the other hand, for local people, early warning knowledge means a set of skills to ‘read’ the signs of nature, how the volcanos, the animals, the trees, or the waves ‘behave’. I will argue in this presentation that any recognition of intangible cultural heritage should take into account this human-nonhuman relationship and should not overlook the role of the nonhuman as an agent that may influence local practical knowledge on threats and hazards. The example of Mt Merapi eruption shows that the existence of intangible cultural heritage as knowledge in dealing with Mt Merapi would depend on a guaranteed space given to local people to continue ‘talking’ with the mountain. When scientists, government officials, or activists intervene to stop the ‘conversation’, not only will they eradicate the cultural heritage, but they will alienate local people from their familiar method of coping with disaster risks.

### **Mt Merapi and Javanese Cosmology**

Mt Merapi holds a special place in local Javanese cosmology. The Javanese believe that the mountain possesses supernatural power that could influence human affairs to a significant degree, even changing political regime. In the 16th century, attack on Yogyakarta’s Mataram Kingdom by the vassal sultan from Demak (coastal north Java) had been thwarted with the help of what the legend says Merapi spirit. The enemy troops set up a military camp near the Mataram territorial border, but when they were about to ambush the Mataram palace, Mt Merapi erupted and threw volcanic rocks that destroyed the campground. The Sultan of Demak and his troop had no other choice than retreating and returning to Demak, and the Mataram Kingdom was, once again, safe. Many other important historical events are said to happen around the time when the volcano is active.

Mt Merapi is one of three sacred sites (Mt Merapi, the Yogyakarta Palace, and the South Sea) connected by a mythical imaginary line that runs across the former Mataram territory. The line maintains a symbolic balance among the three sites, a disturbance in one of the sites would throw the imaginary line off balance and disturb the other sites. Therefore, the task of the Sultan of Yogyakarta is to maintain the sacred equilibrium, he has to make sure that the symbolic connection is not severed to the degree that can disturb the equilibrium. In so doing, he must maintain a close relationship with Ratu Kidul (Queen of the South), the ruler of the South Sea, and the spirits residing on Mt Merapi. Legend has it that in order to maintain a good relation with the Ratu Kidul, the sultan must have regular sexual encounters with the mythical figure in addition to presenting offerings in annual ceremony held on the south coast. To look after and communicate with Mt Merapi spirits, the sultan has appointed a respected, wise, and knowledgeable *abdi dalem* (court retainer). Mbah Maridjan was assigned by the Sultan Hamengkubuwono IX to take the role as the guardian of Mt Merapi, a crucial symbolic post to watch over and restore the balance of the imaginary line. If Mt Merapi behaves ‘out of control’, the cosmological equilibrium

could be disturbed.

Mbah Maridjan acted as a mediator of the human and the nonhuman worlds. He delivered messages from Mt Merapi spirit to the people (including to the sultan) and from the human to the Merapi spirit. He was a mediator and, at the same time, a translator of divine and mundane messages. This supernatural role of Mbah Maridjan was the focus of controversy and conflict between Mbah Maridjan's circle against geologists and disaster scientists, who disregarded Mbah Maridjan's cultural role and blamed him for propagating 'unscientific' knowledge.

Local cosmology depicts Mt Merapi and its surrounding areas as an invincible town, the mountain's crater is the inner palace. A wall surrounds the 'town' with gates located in east, west, north, and south sides. Spirits live inside the wall, create a 'society', and have normal activities such as going to a market, playing music, or having marriage ceremony. When the spirit holds an event, people notice the volcano would 'behave' differently and Mbah Maridjan would interpret the 'behavior' for the people. What is more important in this local cosmology is not the volcano but what the spirits do as reflected on the volcano, and Mbah Maridjan's job is to make sure that what the spirits do stays within the limit of human capacity to bear. If the spirits are preparing a big event, such as a wedding ceremony, it might affect the living world, then Mbah Maridjan's task is to warn the people to move away.

### **Cosmology and Early Warning**

*Redi Merapi, menawi bade mbangun, sampun damel margi piyambak*  
When (the spirits of) Mt Merapi is building, it will create its own path

Just like what happens in the living world, the palace on Mt Merapi also needs regular repair or maintenance, and sometimes it requires new buildings to be built. When the spirits of Merapi are at work, the volcano shows signs people can observe. From time to time, Mbah Maridjan had to find out what was going on inside the 'palace', then he would give instruction to local villagers whether or not they need to evacuate the villages. In performing the duty, the guardian of Merapi closely monitored the 'gates' (*regol*) especially those located in the south side of the volcano. If the *regol* opens a little, the situation remains safe, no big work taking place inside the palace, maybe small constructions here and there. But if the *regol* has been widely opened, people living on the mountain slope should be cautious and ready to leave. It means Merapi is preparing a major construction work or a big wedding ceremony. In the situation when the *regol* has been widely opened, Mbah Maridjan had only two options. He could hold a ritual to appeal the spirits to lessen the scale of the work or should tell the villagers to evacuate their villages as soon as possible.

Prior to the 2010 eruption, Mbah Maridjan had successfully carried his duty to guard the mountain and the people. During previous eruptions, he communicated with the spirits and managed to ask them to minimize their work, or he had been able to inform people to leave affected areas right on time. However, in the 2010 eruption he was unable to do both. His ritual failed to appease the spirits, therefore he failed to

warn villagers to save their properties in time. Pyroclastic cloud descended rapidly and burn livestock and people's belongings, including Mbah Maridjan's house (Figure 1). The guardian was killed inside the small mosque next to the house.

Mbah Maridjan's decision to stay despite the impending danger incites conflicting interpretations on the reason why he chose such a deadly option. Scientists point out Mbah Maridjan's 'traditional' approach has in fact been ineffective to mitigate the disaster. His death adds to strengthen the scientists' claim that it is very risky to depend on illogical knowledge or mythical belief in responding to the risk. On the contrary, people in Kinahrejo village (Mbah Maridjan's village), his family, and cultural activists interpret his decision to reflect a guilty feeling for failing to perform his most important and sacred duty to maintain the balance between the human world and the nonhuman world. In other words, Mbah Maridjan was not a victim of the disaster as the scientists assert, he could escape if he wanted. Instead, he has deliberately sacrificed his life to redeem the failure.



**Figure 1** Kinahrejo village. (Source: F. I. Thufail)

## The Ontology of Intangible Heritage

The Javanese cosmology of Mt Merapi is an ontological world constituting human and nonhuman beings. The ontology links the past, the present, and the future of Javanese aristocratic cultural heritage and blurs nature-culture boundary. When someone like Mbah Maridjan or the Sultan of Yogyakarta is capable to maintain a harmonious relationship between the human and the nonhuman worlds, the ontological knowledge continues to exist and it becomes heritage knowledge. The cosmology locates hazard within the ontological proper, embedded in communicative, semiotic exchanges between the human and the nonhuman beings. Mbah Maridjan's continuous interactions with Merapi spirits turn the categories of culture and nature into events. In the moment when the communicative exchange fails, the event would turn hazard into disaster.

Scientists relate to nature from an asymmetrical position, they want to dominate and control the nature. Science always talks about human-nature, or culture-nature difference and the scientists exercise a mission to rationalize the difference by applying scientific rule and standard to set the human apart from the nature. This is how geologists and seismologists learn the knowledge on how the nature behaves and, whenever possible, find ways on how to control it. On the contrary, Javanese cosmological knowledge stresses the importance of maintaining an equal position of human and nonhuman – animals, spirit, earthly materials. Many Javanese rituals are communicative practices between the human and the nonhuman, but these are nonverbal communications based on the ability and promise of sharing and decoding signs. If scientists with their scientific tools and formulas impose their interpretation on the nature, Javanese actors (such as Mbah Maridjan) are mediators and translators of signs of nature/nonhuman. The Javanese actors use different sets of tool to interpret the signs without privileging their interpretation. The open-ended, some will say precarious, mode of interpreting stands in stark contrast with scientific certainty required by the scientists.

In this brief writing, I suggest that intangible heritage goes beyond cultural form. It is a cultural practice and in the context of disaster and hazard mitigation, it is a practice to talk to nature, learning how it communicates signs of danger. As the controversy over Mbah Maridjan's death shows, communicating with Mt Merapi means getting deeper into the Javanese ontological cosmology. Intangible heritage as practical knowledge teaches one to listen to what the nature says about impending danger to the living world. As Mt Merapi says:

*'Aku ora ngalahan, tur yo ora pengen dikalahke. Nanging mesti tekan janjine, mung nyuwun pangapuro nek ono sing ketabrak, keseret, lan kegowo kintir, kebanjiran, lan kleleb mergo ngalang-ngalangi dalan sing bakal tak liwati*

I don't want to dominate, but don't want to be dominated either. When the time arrives, I apologize if someone got hit, dragged, flooded, and drowned, should they stand on my way.