Political Geology in Java

A Conversation with Adam Bobbette

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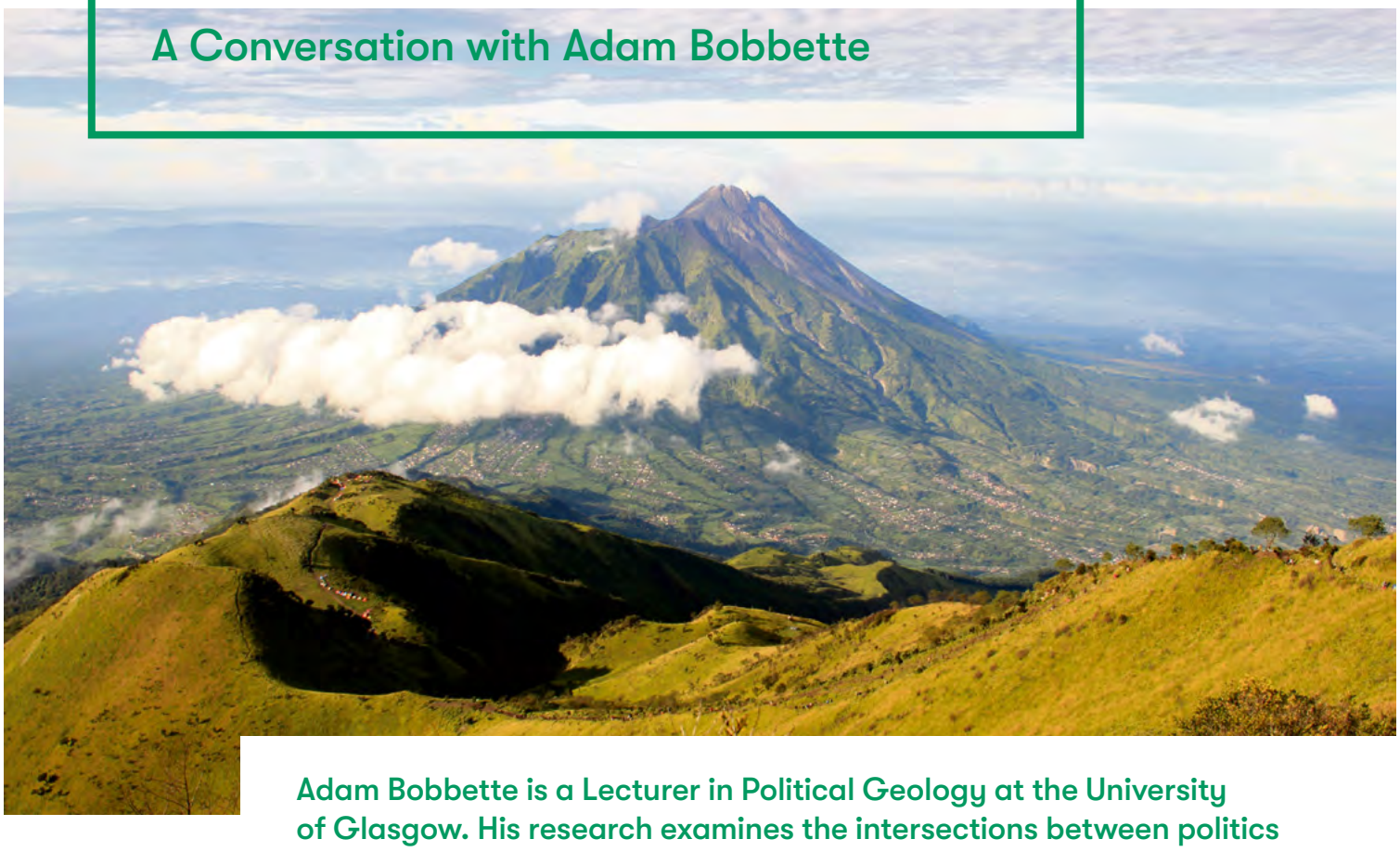

Adam Bobbette is a Lecturer in Political Geology at the University of Glasgow. His research examines the intersections between politics and environmental and earth sciences, with a special regional focus on Indonesia. In the following conversation, Bobbette offers a unique and transdisciplinary view onto questions of science, imperialism, Indonesian cosmologies, and contemporary politics.

Benjamin Linder: You lecture and specialize in political geology, which is a somewhat uncommon field. How do you define political geology, and how did you come to it academically?

Adam Bobbette: Political geology is pretty new field. You could call it a subfield of human geography, and I came to it really through Anthropocene discourses, which are, of course, quite old at this stage. It was Anthropocene discourses that got me interested in and thinking more about the geological sciences, and about what the geological sciences do in society and in culture. So I began to think about the social and political role of the geological sciences, and was doing so alongside, inspired by, and unexpectedly intersecting with lots of other thinkers. The term *political geology* began to surface simultaneously in a bunch of different places. I'm not exactly sure who used it first. But in 2015, or something like that, I collaborated with Amy Donovan at the University of Cambridge, and we held the first conference on political geology to bring people together to talk about it and to think about it and to try to explore what it could mean. And that turned into an edited volume called *Political Geology: Active Stratigraphies and the Making of Life.*[1] And then subsequently, I just continued working in that space and really came to see it as fundamental to understanding the contemporary world.

BL: That brings us to your new book, *The Pulse of the Earth*, which came out with Duke University Press in 2023.[2] In the book, you're looking at the history of Earth Sciences, and particularly the role that Java, Indonesia played in that story. How did you first come to Java? Why was it such an important place in the earth sciences and in geological thought more broadly?

AB: Well, I first came to Java not being interested in geology per se. I was interested in water and urban politics, and I was doing work around that in Jakarta. And then by accident, I ended up in Central Java in a taxi, and I saw Mount Merapi, where I learned that there were anywhere between one and two million people living on it, and that it was an active volcano. It had been inhabited for who knows how long – centuries, perhaps millennia – and it struck me as a kind of intensified version of what I was seeing in Jakarta. It struck me as a place where we could learn about what it meant to live with volatile nature, unpredictable nature. It's the condition that we all live with now. Ulrich Beck said in the 90s that the risk society is living on the edge of a volcano. He never actually talks about volcanoes anywhere else in that in that text, but that was essentially what I came to think about through my first encounter with Merapi. And that is what set me on the path of thinking about the social life of geology. Merapi is something that's known by geologists. It has been a subject of study by geologists for a very, very long time, and it's also a very special kind of geology because it's volcanic. So it's very active, and that's a much different vision of geology than a lot of people have otherwise. Conventionally, we think of geology as something which is very stable, something which is underfoot, something that is millions or billions of years old. Or it something which is extracted, that we can pull up and reshape and make into something else. A volcano is a very special kind of geology, though, because it's basically a liquid. So the conventional distinctions between solids and liquids really begin to become very ambiguous on volcanoes. So that was also really inspiring to me.

BL: Volcanoes are, of course, a notable feature of the Javanese landscape. What role does volcanology play in the story you're telling – or in the social life of geology, as you described it earlier?

AB: This builds on what I was talking about earlier about how volcanoes are this very special kind of geology, because they're so active. And how that really opens up a different story about the history of the geological sciences than ones we are more familiar with. Volcano science and the geological knowledges associated with volcano science are a different story. You're not looking to extract stuff from volcanoes. You're looking to protect people from their explosions. You're looking to predict when eruptions are going to happen. So it's an anticipatory science, and one which is fundamentally bound up with histories of divination and how it is that we know the future and tell stories about the future. Also, in the context of the Netherlands East Indies, volcanoes were principally of interest because they were destroying the plantations. We all know that the Netherlands East Indies was a plantation economy, one built not on the extraction of ores so much as on the extraction of botanical products. The role of volcano science in that story is really not known generally, but it was profound because volcanoes would erupt and destroy the plantations and shut down the plantation economy. So the emergence of the modern volcano sciences in the world certainly was driven by this attempt to understand how volcanoes worked to be able to manage their eruptions in the Netherlands East Indies, and then that knowledge spread around to other parts of the world.

BL: One thing I really appreciated about your book is that you're not only interested in what Western science and Western scientists did in Java, but also in local cosmologies and their relationship to the earth sciences.

AB: This links back to what I was saying, towards the beginning of our conversation about how I came to this work by trying to understand the social role of the geological sciences. That interest really expanded outwards into how it is that the geological sciences have shaped the narratives that we have inherited about the landscape, and about geological history and the history of the Earth itself. But as I see it, that's not the only function of political geology. The second dimension of it is that the Western geological sciences are not the only knowledges that there have been about geological materials and landscapes, or about the evolutionary history and structure of the earth itself. So the other purpose of political geology is to also open up and expand those narratives about geological materials – how it is that geology relates to humans – and about other conceptions of the role of geological knowledge is in society. So it is to acknowledge the colonial and imperial legacies that are in the geological sciences, absolutely. That's really, really important, but that's not the only way to think about geology. And that's also what is central to the book. A lot of it is spent trying to understand the Javanese spiritual traditions and how they conceptualize geological material and geological processes: the significance of Indonesian Islam in thinking about the history and evolution of the Earth itself, Javanese spiritual topographies and how they make sense of volcanic processes. The next move in that process is to show how they interacted with Western colonial geological sciences, how they, in fact, influenced those sciences, how they are incorporated into the narratives that standard geological sciences have of the earth today.

BL: You use the term intercalation to explore this relationship between these two bodies of knowledge – that is, Western imperial science and local cosmologies. What is the geological meaning of intercalation? And how are you using the concept?

AB: Intercalation is actually a geological term to talk about geological contexts basically made up of mixtures of a whole bunch of different stuff fused together. That's a very, very heterodox description of it, and my geologist colleagues would absolutely despise the way that I just did that. But for those of us who are not trained in the earth and environmental sciences, that's a way to understand intercalation. But another thing that is important about intercalation is that it's made up of bits of fragments from different periods, sort of mushed up side by side. And that's how it would be different from something like stratification, where each layer is a different period. Stratification is linear in its chronology; intercalation is not necessarily linear. So you have different historical bits sort of fused or mashed up together. To me, that seems like a productive way to think about earth knowledges and a productive way to think about the geological sciences – to see them as intercalated, made up of fragments that are quite cosmopolitan, from all sorts of parts of the world. Some of them are kind of translated, some of them are not, they're just taken sort of whole hog and fused in with other bits of knowledge.

This transcript has been heavily edited and abridged. The original audio includes a wealth of further details and discussion. To hear to the full conversation, listen and subscribe to *The Channel* podcast: https://iias.asia/the-channel

Notes

1 Bobbette, Adam and Amy Donovan (eds.). 2019. *Political Geology: Active Stratigraphies and the Making of Life.* London: Palgrave Macmillan.
2 Bobbette, Adam. 2023. *The Pulse of the Earth: Political Ecology in Java.* Durham: Duke University Press.
3 Beck, Ulrich. 1992. *Risk Society: Towards a New Modernity*. London: Sage.