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Reply on RC2

Stefano Carlino

Author comment on "Review article: Brief history of volcanic risk in the Neapolitan area (Campania, southern Italy): a critical review" by Stefano Carlino, Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2020-410-AC2>, 2021

I agree with R1 – the paper is written in much better English than my Italian, but it is hard to read and in places the style is colloquial/journalistic rather than academic. I have done a quick read-through with some other points to note but will review it in more detail after a rewrite. I also agree with R1 that there is much excellent material here and strongly encourage the author to persevere with it!

Dear Amy Donovan, many thanks for your interest in this paper. This is a quick preliminary reply to your comments. Meanwhile, I'm working to the changes of the paper and I will send, as soon as possible, the paper to NHSS after English revision.

Other points:

How do we know that people were so attracted to the area by the volcanoes? There are lots of highly populated non-volcanic areas in the region. There are comments throughout like this – that make value judgements with limited evidence – e.g. page 5 has quite a simplistic reading of culture as sequential.

Reply: I explained this point using a different preliminary consideration. However, people did not settle this area (the Neapolitan district) simply because they were attracted by volcanoes. Actually, volcanoes created the environmental conditions, such as the high fertility of the soils for the agriculture and the presence of thermal waters, lakes and natural inlets, which were favorable condition for the development of a local "economy" and also for leisure (the latter aspect was particularly appreciated by Romans during their Empire). On the other side, up to the Middle Age, volcano disasters were considered a punishment for human beings and thus the concept of hazard and risk was not related to the Earth natural cycles, on the contrary it was associated to the myth. This belief generated and underestimation of the actual volcanic risk. Finally, since large and destructive eruptions are rare events, during the development of the stable settlements of the area people considered that the benefit of living around active volcanoes was greater than the risk associated to an eruption.

LI47-48 Not really an academic comment!

Reply: yes, I changed this comment

L161 onwards – not always necessary (or indeed possible) to quantify vulnerability – vulnerability needs to be dealt with in different ways. Quantification can help but is not the only approach. The primary drivers of vulnerability may be socio-economic, cultural and political, and so policy changes and reducing social inequality are more important than measuring vulnerability itself.

Reply: I agree with this comment. I changed this part of the paper according to your suggestion.

On the C17th, there is a useful book by Sean Cocco

Cocco, S., 2012. Watching Vesuvius: a history of science and culture in early modern Italy. University of Chicago Press.

Reply: I know very well this book. It was my mistake not to cite it. I added this book in the reference and in the text.

L281: whether or not it was “overcautious” to evacuate Pozzuoli depends also on the uncertainty – it is not just about what happened, but what could have happened – if the uncertainty is high, the evacuation may be justified anyway.

Reply: This is true. Otherwise, I wanted to underline that, during the first unrest at Campi Flegrei, in 1970-72, the general knowledge of volcano dynamic was modest and the monitoring of Campi Flegrei caldera was virtually absent. This was possibly the main reason that led to the hasty choice, to begin the evacuation of the population of Pozzuoli. This history is interesting, since there was a suspicion that an attempt at building speculation was at the heart of this choice. In fact, more than an evacuation, there was a forced eviction of the inhabitants of Rione Terra (the historical center of Pozzuoli), who were temporarily placed in hotels and hospitals, awaiting their definitive transfer to the new residential district, the Rione Toiano district, which was to have been built a few kilometres north of Pozzuoli. Amidst the bewilderment of a population besieged by the police and the chaos caused by the closure of many of the access routes to the city, the suspicion of a building speculation manoeuvre became a conviction for many residents. But this is just a little piece of the history. Anyway, I avoided to use the term “overcautious” and I will try to explain better this point.

Some of the information in this section (historical activity of CF) could be displayed in a timeline, which would be helpful for readers unfamiliar with the events. The existing figures are very good – would just be useful to have a timeline of the more recent crises/unrest too.

Reply: I’m preparing a new figure with a timeline.

Best regards

Stefano Carlino