Review of: "Forming The Rapid Survey Interdisciplinary Team with Multiscalar Tradecraft: a Plea in the Backdrop of the Anthropocene"

Max Oke Kluger¹

1 University of Waikato

Potential competing interests: No potential competing interests to declare.

I see merit in this paper as it presents a case study in which interdisciplinary research is needed to face future challenges such as climate change. However, I identified a number of critical points that seemed particularly salient to this paper. Please find detailed comments below.

(1) The introduction should be improved. (a) The author summarises the need for interdisciplinary collaboration to face future problems such as climate change. Interdisciplinarity and climate change are both very well-known and well-studied subjects, which deserve a proper review of recent literature. (b) The author continues to introduce an exploratory proposal for an interdisciplinary squad (RSGIS), note typo in 'Glocal', that is 'equipped with tradecraft or toolkits that are multiscalar-ready'. I recommend to further elaborate/define what was meant with 'tradecraft', 'toolkit', 'multiscalar-ready'. These words are ambiguous and may not be comprehensible to the ready. Also, no reasoning was provided why a 'squad' should be comprised of 4 to 8 team members. I suggest to further introduce how this interdisciplinary squad differs from other interdisciplinary team efforts reported in the literature. (c) The case study (Baroro) should be better introduced. Why is this case study suitable/relevant for interdisciplinary research was not clear to me. (d) Objectives, scientific questions or rationale should be clearly stated and motivated in the introduction.

(2) Background sections should be improved. (a) I would suggest avoiding jargon as much as possible. This is especially important, if addressing researchers from different disciplines as they may define terms differently. Jargon/terms that could have ambiguous meanings include 'models' (could refer to a physical model, numerical model, role model, etc.), 'RCP2.6', 'positive feedback loop', 'Anthropocene' (commonly refers to geological time period but here it was used to refer to climate crisis during the Anthropocene), 'ecosystem of facts', 'world of data' (b) I would suggest to improve these sections by including relevant and recent literature. (c) I would suggest to improve the definition of 'interdisciplinarity', transdisciplinarity, and 'multidisciplinarity' because they lacked clarity and precision.

(3) The methods section lacks information. (a) Please provide dimensions (e.g., metre, kilometre) for the different scales used in the multiscalar method (i.e., macro, meso, micro). (b) I wonder how micro (i.e., on a micrometre scale) can be included in this approach using commonly used RPAS. This argument requires relevant literature reference. (c) I suggest to elaborate on how different disciplines interact in this method on the different scales. (d) It may be helpful to add practical examples of the different scales of the exploratory proposal.

(4) The Baroro Case section could be improved as follows. (a) I would suggest adding a longer and more detailed overview of the study site at the beginning. (b) I would avoid colloquial and ambiguous language. For example, the author used 'dendritic tree' to refer to the drainage basin (better use drainage system). What is meant with 'watershed'? How do natural processes 'weave' cultural processes is not clear to me either. Maybe it would be better to write that settlements occurred close to the drainage/river systems. Note that 'delta' and 'estuaries' were used synonymously, but in fact they are not identical. What is meant with '2nd, 3rd, and even 4th order centers' and 'producers'? (c) 'The natural processes mentioned earlier basically stem from the mixing of salt water from the sea and organic matter plus land sediments which churn out kaolinite clay iron oxides and tidal flushing. 'This sentence is very vague and partly incorrect. The natural processes (drainage system, delta/estuary formation?) do normally not arise from mixing of salt water with organic matter. Kaolinite clay iron oxide does not exists! This sentence needs revision and support from relevant literature. (d) I suggest better explain 'trophic levels' and 'primary, secondary, then tertiary, and finally the quaternary consumers'. The statement 'raptors are the commonly seen quaternary consumers in a biodiverse region.' requires literature reference. (e) I would suggest to better highlight why this site is relevant in interdisciplinary research. The author explained some aspects relevant to different disciplines (culture settlements, geological and biological aspects) but did not try to find proper connections between them. How do the different scales apply to this case study was not made clear.

(5) The main problem with the paper in my opinion is that it lacks a proper results and discussion section. As it happens, I could not identify any proper result throughout the paper. The discussion covered deforestation which was not mentioned before in the paper as important aspect of the study area. No details were provided about the actual interdisciplinary approach. I suggest to better structure the paper, provide a number of results (supported by data), followed by a proper discussion of results with relevant literature.

I really hope these comments will help you improve your work further.