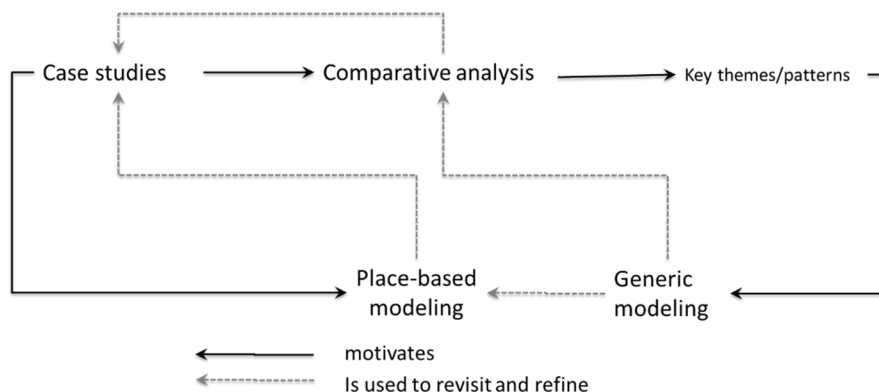


The authors made efforts to improve the paper and explain their rationale behind the concept of socio-hydrological space (SHS). Thank you for that. However, despite the attempt, I still find their explanation of the concept and rationale behind it to be esoteric and verbose. If one cannot explain his/her ideas in a plain (clear & obvious) manner, it is probably a case of overdoing.

The authors say SHS is a middle ground between two methods: generic modeling and placed-based modeling (or specific case studies or attempts to exploring applicability of a placed-based model to other sites). It is also described as “the empirical expression of a specific combination of generic patterns (here: fighting and adaptation dynamics) in a geographical area that is distinct from the neighbouring one.” I find these to be abstruse and difficult to understand.

Whether generic/abstract modeling or placed-based modeling, the approach is still the same for both—deductive modeling for various purposes (e.g., prediction, uncovering/testing hypotheses or underlying mechanisms that generate observed phenomena, explore the future possibility space, etc.) that are difficult to achieve by the means of other methods. Place-based modeling uses more specific assumptions and parameter values that are based on and motivated by a specific case/site. Generic models can be purely based on stylized facts/theories or motivated by certain recurring themes emerging from comparative analysis of multiple cases. A fundamental purpose of any modeling is not to capture reality as close as possible. Rather, models are like maps with only essential details. They are most useful when they contain only essential details. There is also bi-directional feedback between modeling and empirical studies. Empirical studies motivate modeling. Insights learned from modeling can be used to re-visit empirical case studies and refine knowledge gained. So, I don’t understand the author’s criticism about models “not being realistic” and it is also unclear to me what can be middle ground between the generic models and placed-based models. These are just different styles of modeling differentiated by modelers’ intent or data availability. The figure below is useful for thinking about the mutually reinforcing feedback between empirical studies and modeling studies.



Also, this expression in the paper “SHS is also the empirical expression of a specific combination of generic patterns (here: fighting and adaptation dynamics) in a geographical area that is distinct from the neighbouring one” is a good example of why I’m saying the authors’ explanation is esoteric and verbose. I don’t think readers who are not so familiar with sociohydrology will understand this. If one cannot explain in plain words, chances are that it is case of overdoing

So what can be done now? One way to salvage this work is taking a step back and re-think about how to simplify the story of the paper. The concept of SHS seems to emphasize rich historical patterns in a particular place. Thus, I think a good example to follow is Erik Mostert's recent paper in HESS (Mostert, E. (2017), An alternative approach for socio-hydrology: case study research, Hydrol. Earth Syst. Sci. Discuss., 1–14, doi:10.5194/hess-2017-299). The authors might reframe the paper as (1) emphasizing the importance of historical patterns in particular geographies for fully understanding generic as well as place-based models (show how) as well as (2) demonstrating how combining such rich historical patterns can help mutual reinforcing feedback between empirical studies and modeling studies.