

Wednesday April 5, 2017  
Engineering 2, room 599, 4-6PM  
Rapporteur Report by Dan Schniedewind

### **“Post Conflict Battlefield Landscape Recovery - or Not?”**

Participant: Professor Joe Hupy (Geography: University of Wisconsin-Eau Claire)  
Discussant: SJRC Graduate Fellow Jeff Sherman (Politics)

The impacts of war, as Professor Hupy established early in his presentation, ramify not only among humans, but also in the biosphere, atmosphere, geosphere, and hydrosphere. As a scholar of the physical landscape, Professor Hupy is well known for introducing the concept of soil bombturbation which refers to the mixing of soil as a consequence of military bombing in contrast to, for instance, bioturbation or cryoturbation (the integration of constituents of different soil horizons through the actions of organisms or through freeze/thaw cycles respectively).

Early on proposing two questions that would be taken up throughout the event, Professor Hupy asked what makes warfare disturbance unique, and can landscapes ever recover from its impact? As became clear later, answering both of these questions requires certain critical terms to be defined, specifically “war” and “recovery,” as well as deciding who should provide these definitions in the first place.

This latter matter became especially acute as Professor Hupy explained how the difficulty of geographically surveying war landscapes “on the ground” led to his current interest in the deployment of Unmanned Aerial Vehicles (although there still always seems to be a “man” there somewhere) for data collection about physical landscapes. Given the observation from discussant and SJRC Fellow Jeff Sherman (Politics) that UAVs were in part developed by the US military for reconnaissance work in the same mountains of Vietnam that Professor Hupy has studied, event participants conveyed concern about who is interested in the development of these aerial data collection systems, and to what ends are they being used. As Professor Jenny Reardon (Sociology) pointed out, while a promise to make all data collected “freely available to the public” may seem like an ideal scenario, state and corporate interests are still more likely to access and use the information for their own ends. Further, as a question of methodology, do remote “unmanned” approaches enable researchers access without having to engage or potentially become accountable to the people who live in their survey sites?

Here the high stakes inherent in the definitions of “war” and “recovery” came again to the fore. Is the violence of war evidenced only by the photo of the Mekong Delta pockmarked by 500-pound American bombs? Or does war persist through less sensational violence, such as through political or economic coercions which shape lives and landscapes long after a formal cessation of hostilities? Professor Hupy’s argument that “postwar land use is ultimately the dominant geomorphic agent” rather than the soil bombturbation itself highlights the significance of working through when exactly the “post” in “postwar” begins in order to consider what constitutes recovery, for whom and by whom. Professor Kristina Lyons (Feminist Studies & Anthropology) later pointed out in the Q&A that there are high political stakes to delineating types and temporalities of violence. First, what if landscape “disturbance” was conceived as violence rather than disturbance? Second, what does it mean to say that bombs have less

enduring effects on a landscape than postwar agricultural practices and the resulting land degradation? How does this kind of delineation, enabled by specific configurations of aerial technologies and data production, render justice making impossible for certain groups that have been victims of war?

The US military, Professor Hupy explained, is aware of the impact of their activities on landscapes and the role of bombturbation in alienating potential civilian allies, hence their interest in his research and in the possibility of conducting war more “sustainably.” It was the varied engagement with such a notion of sustainability that made this a conversation across difference, one Science and Justice seems uniquely likely to host, as a participants with a range of trainings and ethical and political concerns tried to work through the implications of specific technologies and researches and the criteria used to evaluate them. For example, whereas Professor Reardon described how genomics researchers are collectively deliberating ethics standards that would apply to all in the field, Professor Hupy explained that in the geospatial field, individual practitioners on a case-by-case basis handle ethical decisions.

In this sense the entire SJRC event itself could be fancied a demonstration of bombturbation, an otherwise unlikely mixing occurring through the ongoing, generative, and global violence of the US nation-state.