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Interactive Comment

Interactive comment on "The past, present, and future of soils and human health studies" by E. C. Brevik and T. J. Sauer

D. Weindorf (Referee)

david.weindorf@ttu.edu

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Having read this article, I find it to be an excellent overview of soils and human health. The authors do a good job of recounting the historical developments in soil/human health studies and have explored many contemporary relationships as well. The paper is well written, with extensive references which readers will find helpful. A few minor corrections to consider:

- 1. Page 52, Line 24-25: ...probably think about... ...soils when thinking.... State this differently. Avoid using the same word twice in the same sentence.
- 2. Page 54, Line 4: ...recognizing a link between enduring agriculture....

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- 3. Page 54, Line 17: 1957,
- 4. Page 54, Line 20: (PSNRU) at Cornell University in 1940....
- 5. Page 54, Line 25: 1939,
- 6. Page 57, Line 4: Replace "on the other hand" with "conversely"; brevity is always better.
- 7. Page 59, Line 22: I would really like to see the authors highlight the fact that the soil health is a major area of focus for the NRCS right now. They mention "other branches of the USDA..." but I think that exploring the NRCS emphasis on soil health would be worth 2-3 sentences at least.
- 8. Page 60, Line 11: Suggest adding Weindorf et al., 2013 to the list of studies here as well: Weindorf, D.C., L. Paulette, and T. Man. 2013. In-situ assessment of metal contamination via portable x-ray fluorescence spectroscopy: Zlatna, Romania. Environmental Pollution 182:92-100. doi: 10.1016/j.envpol.2013.07.008. This is an excellent example of heavy metal pollution in Eastern Europe derived from smelting activities.
- 9. Page 64, Line 17: Avoid providing new citations (not previously mentioned) in the conclusions section. Also, Lines 13-17, the authors mention quite a bit about funding in the conclusions, however I did not see this emphasized or discussed in the paper. It would seem misplaced to put new material in the conclusions that has not been previously discussed in the paper.
- 10. Page 64, Line 25: replace "weight" with "importance"

Just a couple of other comments. The authors might want to add some studies/references from China. I did see a couple, but I know that heavy metals are a major concern in that region. Also, when discussing the relationship of plants to soils with regard to human health, I think the important topic of phytoremediation should be discussed with a few sentences. It is well known that certain species are accumulators of heavy metals. This has implications for both improving soil health, but also careful

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use and disposal of the metal accumulating plants.

Summarily, I find this paper to be excellent and certainly worthy of publication. I fully support its acceptance for publication, following consideration of the aforementioned minor corrections.

Interactive comment on SOIL Discuss., 1, 51, 2014.

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