

The paper is an interesting, rather comprehensive and original contribution to the topic of soils in art. For this, it is relevant to the effort of raising soil awareness and communication within audiences other than soil scientists. Nonetheless, it is necessary that the paper maintains scientific quality, complies with journal standards, and avoids generalization and fragmentation. For these reasons, the paper needs major revisions as recommended by the editor and reviewers. Throughout the revision and discussion process, the authors have chosen to ignore most of the recommendations that were made. For publication, it is necessary that those recommendations are adequately addressed by the authors.

The objection made by N. van Breemen about the “elevation of the topic into the realm of so-called Soil Art” is relevant as it reflects more the authors’ wishes than the purposes of the artists in general. The use of soil as material and the depiction of soil and landscapes (with soils) cannot be related to a specific aim of producing soil art by artists. Sporadically soil scientists have produced art depicting soils as their subject. However, when an artist is not available for comment, it is easy to distort the original meaning of features in a painting, and the authors frequently do this to support their thesis. It is not of the competence of soil science to create the definition and distinction of an art category.

The comments made by B. Costa give good indications of how the authors can reshape the paper. They give an opportunity to make the paper more balanced, conceptually consistent and better structured:

- Make clear the concepts of soil and landscape;
- Assume the paper to be a collection of relevant samples, case studies and fragments of art history which together build a retroactive manifesto for soil in art, instead of seeking a historic line that is incomplete and reveals a fragile knowledge of art history.

Specifically I add a few comments and suggestions (in italic):

- In the abstract: instead of genres dealing, genres *depicting*;
- Line 20 of Introduction: instead of ... soil research and protection, **soil awareness** and protection;
- In the Soil vision section it is missing the mention to life. Most important than all is that soil is alive, it is the living layer of the outer Earth;
- Third and fourth paragraphs of page 88:

I suggest some reassessing of this part of the text, to avoid a restrictive vision of soil functions as goods and services: ... The soil profile is in this sense a visual narrative of some of *its properties* and functions it performs. Since the beginning of mankind *soil* has provided goods and services to human societies. These include: (...)

Many of these roles *were depicted in artistic representation* (see, for example, Fig. 02).

Comment [a1]: We have changed the title from “**From soil in art towards Soil Art**” to “**Case Studies of Soil in Art**”

Comment [a2]: MAJOR REVISION OF INTRODUCTION FOR STRUCTURAL IMPROVEMENT:

We significantly shortened the intro from the original to focus on aims of the paper – introducing art examples – and deleted, reformulated, or moved sections on the history of soil science. For example the Dokuchaev part seemed to distract from the body of the introduction (is Dokuchaev’s vision really relevant for artists?) so it was moved to the part on teaching and the discussion on services and functions moved to the installation chapter.

Comment [a3]: But it is more than depicting.
New formulation:
“The material and symbolic appropriation of soil in artworks is wide and diverse...”

Comment [a4]: added

Comment [a5]: added and definition reformulated

Comment [a6]: see reformulation in manuscript

The notion of soil functions, goods and services has been greatly extended since the mid-20th century with the emergence of the environmental movement and of science aimed at addressing...: This paragraph lacks references.

- Envisioning Soil: dealing and depicting. Many times the term depicting or representing will be more adequate than dealing, because of the fact that the artists likely did not represent soil on purpose.
- In the text: For our purposes here, we define Soil Art as: I suggest to remove the word protection from the first sentence, since the paper is more generally oriented than to soil protection.
- The text inserted in the public discussion does not appear in section 2.2: "Since Wessolek published 2004 the first international 'art and soil' calendar (in three languages), it became popular showing soils from a more artistic and also aesthetic perspective. Since that time in some soil science communities calendars help to give soil a an attractive attitude"
- In page 26, still it would be relevant to add a comment of the early research position of de vries at the Wageningen University. It says more than only a former career as a biologist;
- The second paragraph of the section Cinema and Soil Art appears not relevant for this paper and is unbalanced with the rest of the paper. The same goes for figure 19;
- With reshaping the paper, conclusions need to be reviewed, also to include the comments of the referees N. van Breemen and B. Costa, which were not considered yet in this part of the text.

With a careful consideration of the contributions given to the paper, I believe it can be considered for publication.

Comment [a7]: added Gómez-Baggethun et al., 2009) and moved to installation section, where value is discussed in more depth, from an artistic perspective

Comment [a8]: I (Alex Toland) strongly disagree. In my research on soil and art I have identified as many examples of "depiction" as "dealing." To assume that artists randomly use soil for their own aesthetic explorations ("they likely did not represent soil on purpose") is to deny artists their role in a greater environmental movement in which they are indeed aware of soil properties and functions. It is arrogant for scientists to believe they have ultimate capital on soil knowledge and that artists are merely "depicting" or "representing" rather than making their own unique contributions to the visual, cultural, and material study of the soil.

Comment [a9]: In our opinion, soil awareness is a form of soil protection.

Comment [a10]: MAJOR REVISION:
To avoid the legitimate criticisms of Costa, van Breemen and others, we have deleted or reformulated references that encourage the formulation of a new art genre. Instead we include a definition that specifies the criteria for our selection of works and hopefully narrows down the field for others in the future.

Comment [a11]: Included in last para of 2.2.

Comment [a12]: Deleted de vries and Kurita sections as they have already been published elsewhere

Comment [EL13]: We have omitted this paragraph. The figure in question (now Fig 10) shows a technology of interest to soil scientists and should therefore be retained.

Comment [a14]: Among other changes, please see footnote 3 and reformulation of description of Gesamtkunstwerk with reference to de Oliveira et al., 1993.

Comment [a15]: We have tried to address all comments made by reviewers and hope that the major revisions made elsewhere in the paper justify the conclusions now.