A new approach to a data ontology for the qualitative assessment of funerary spaces

Asuman Lätzer-Lasar based on peer reviews by 2 anonymous reviewers

Aline Deicke (2024) Spaces of funeral meaning. Modelling socio-spatial relations in burial contexts. Zenodo, ver. 4, peer-reviewed and recommended by Peer Community in Archaeology. https://doi.org/10.5281/zenodo.8310170

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The paper by Aline Deicke [1] is very readable, and it succeeds in presenting a still unnoticed topic in a well-structured way. It addresses the topic of "how to model social-spatial relations in antiquity", as the title concisely implies, and makes important and interesting points about their interrelationship by drawing on latest theories of sociologists such as Martina Löw combined with digital tools, such as the CIDOC CRM-modeling.

The author provides an introductory insight into the research history of funerary archaeology and addresses the problematic issue of not having investigated fully the placement of entities of the grave inventory. So far, the focus of the analysis has been on the composition of the assemblage and not on the positioning within this space-and time-limited context. However, the positioning of the various entities within the burial context also reveals information about the objects themselves, their value and function, as well as about the world view and intentions of the living and dead people involved in the burial. To obtain this form of qualitative data, the author suggests modeling knowledge networks using the CIDOC CRM. The method allows to integrate the spatial turn combined with aspects of the actor-network-theory. The theoretical backbone of the contribution is the fundamental scholarship of Martina Löw's "Raumsoziologie" (sociology of space), especially two categories of action namely placing and spacing (SC1). The distinction between the two types of action enables an interpretative process that aims for the detection of meaningfulness behind the creation process (deposition process) and the establishment of spatial arrangement (find context).

To illustrate with a case study, the author discusses elite burial sites from the Late Urnfield Period covering a region north of the Alps that stretches from the East of France to the entrance of the Carpathian Basin. With the integration of very basic spatial relations, such as "next to", "above", "under" and qualitative differentiations, for instance between iron and bronze knives, the author detects specific patterns of relations: bronze knives for food preparing (ritual activities at the burial site), iron knives associated with the body (personal accoutrement).

The complexity of the knowledge engineering requires the gathering of several CIDOC CRM extensions, such as CRMgeo, CRMarchaeo, CRMba, CRMinf and finally CRMsoc, the author rightfully suggests. In the end, the

author outlines a path that can be used to create this kind of data model as the basis for a graph database, which then enables a further analysis of relationships between the entities in a next step. Since this is only a preliminary outlook, no corrections or alterations are needed.

The article is an important step in advancing digital archaeology for qualitative research.

References:

[1] Deicke, A. (2024). Spaces of funeral meaning. Modelling socio-spatial relations in burial contexts. Zenodo, 8310170, ver. 4 peer-reviewed and recommended by Peer Community in Archaeology. https://doi.org/10.5281/zenodo.8310170

Reviews

Evaluation round #1

DOI or URL of the preprint: https://zenodo.org/record/8310178 Version of the preprint: 2

Authors' reply, 08 February 2024

Liebe Asuman,

ich habe das Paper jetzt überarbeitet; anbei die Datei mit allen Änderungen markiert, damit Du meine Änderungen leichter nachverfolgen kannst.

Vielen Dank für Deine Mühe!

Aline

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Decision by Asuman Lätzer-Lasar , posted 20 December 2023, validated 20 December 2023

Very interesting manuscript needing minor revisions

Dear Aline Deicke,

two reviewers and I have evaluated you work which is very interesting and already almost ready for publication.

Nevertheless, there are some minor improvements which could be made to your manuscript, and I therefore look forward for a finalized version of the text on Zenodo, and answers to the few comments by both reviewers.

Reviewed by anonymous reviewer 2, 21 September 2023

The paper presents a first sketch of modelling funerary contexts as relational spaces occupied by object and human agents. It therefore, embraces the spatial turn and combines it with aspects of the actor-network-theory. The theoretical backbone of the contribution is the fundamental scholarship of Martina Löw's "Raumsoziologie", especially two categories of action namely placing and spacing.

The author develops a structuring model based on Löw's theories and moreover includes another category, namely the interpretative process aiming for the detection of meaningfulness behind the creation process (deposition process) and established spatial arrangement (find context).

The text is written in a clear and understandable manner, which allows to retrace the idea from theory to practice. The complex structuring models for information from funerary contexts are illustrated with a case

study of the urnfield period.

The proposed approach is highly refreshing and also promising. With the clear-cut presentation, the paper definitely deserves to be published. Since it is only a preliminary outlook, no corrections or alterations are needed. Instead, one is already waiting for the actual database structure, a future test with more data sets and maybe the adaptation to projects from other burial cultures.

However, I would like to ask a question deriving from my own field. With regard to funerary practices, not all positions of agents within a burial might actually show the place of deposition. Inhumation burials might interact with the placement of object during the decomposition of the human remains. Objects, initially put on top of the corpse, are therefore likely to change the intended relation to the body. In consequence, the intended spacing is not necessarily inferable from the place of discovery. Is there a certain mode for "inaccuracy" or "variability" (maybe error rate), which could be integrated?

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Reviewed by anonymous reviewer 1, 05 October 2023

The paper is well written and very interesting and addresses on a quite new topic.

It is a methodological paper very well documented.

It is sometimes hard to follow for a non specialist.

I made some comments as suggestions.

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