

Materializing Digital Archaeology: Managing 3D Models

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ABSTRACT

The archaeological record is fragmented yet the artifacts and data that comprise it are used to make sometimes vast claims about human nature and behavior, and about past and contemporary cultures and societies (Huggett, 2012; Huvila, 2019). The digital archaeological record is further fragmented by the rarity of digitization (due to resource and time constraints) and the loss of information through the digitization process (Huvila & Huggett, 2018; Schroer & Mudge, 2017). Due to the lack of connection between the physical artifacts and their digital instantiations (as 3D models, metadata records, scanned images, etc.) it is difficult to understand what contextual information has been lost and/or altered from the physical data. This results in knowledge and information claims based on limited and biased data which can lead to an exacerbation of the silences and gaps in the archaeological record (Huggett, 2020) which 1) reduces the accuracy of archaeological research and 2) can differentially harm marginalized communities because, like archival records, the archaeological record can be used to assert “master” or “grand” narratives (Bastian, 2009; Carbajal & Caswell, 2021).

This Work-in-Progress poster is focused on information loss during the 3D modeling of archaeological artifacts. I posit that instead of understanding 3D models of artifacts as singular sources of information, they should be treated as one component of a complex resource that includes the physical artifact, the digital artifact, and the physical-to-digital transformation. However, it has been difficult to find my way through the required reorientation of foundational concepts like that of materiality from the digital humanities (Drucker, 2013; Kirschenbaum, 2012) and it has also been difficult to implement this reorientation in practice.

ALISE RESEARCH TAXONOMY TOPICS

Data curation; Digital humanities; Knowledge management; Information use.

AUTHOR KEYWORDS

Digital curation; Digital archaeology; 3D modeling; Digitization; Complex digital resources.

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