

Additive manufacturing as a possible solution to fight destruction of the cultural record

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Archaeological concepts such as the real, virtual, and authentic are becoming increasingly unstable as a consequence of archaeological artefacts and assemblages being digitalised, reiterated, extended and distributed through time and space as 3D printable entities. A paper recently published in Open Archaeology argues that additive manufacturing technologies, known commonly as 3D printing, have the potential to redefine the nature of archaeological entities in the digital.

Pervasive looting of important archaeological sites particularly in the Middle East has been well documented over the past year, with the damage to [ancient cities](#) like Palmyra causing anger and outrage around the world. Unfortunately, the attempts to assess the damage to these sites and others like them have been impeded by the conflict and chaos that has afflicted the region over the past four years.

When it comes to understanding or rediscovering human history it is often technology that supports archaeology and the preservation or reconstruction of cultural heritage. The author, Paul Reilly from the University of Southampton says 3D printing can fundamentally change the embodied intra-actions with the finds record and other archaeological assemblages. It means 3D models could be used as replicas of artefacts both in education as well as for scientific purposes.

This technology challenges archaeologists to rethink how the

archaeological record is materialised. It offers the basis for a radical new generative framework within which to relocate and reconsider the nature of archaeological artefacts, assemblages and contexts. In the light of the ongoing reports of the destruction of heritage in the Middle East, the paper brings up a valid point on the means of safeguarding archaeological entities.

"Additive manufacturing – 3D-printing and rapid-prototyping – poses for archaeologists and museum-managers a possibility to digitalise, reiterate, extend and distribute [archaeological artefacts](#) and assemblages through time and space as 3D printable simulacra", comments Wolfgang H. Börner, from The Vienna Museum, Austria.

More information: Paul Reilly. Additive Archaeology: An Alternative Framework for Recontextualising Archaeological Entities, *Open Archaeology* (2015). [DOI: 10.1515/opar-2015-0013](https://doi.org/10.1515/opar-2015-0013)

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