



Virtual Archaeology: a beginning

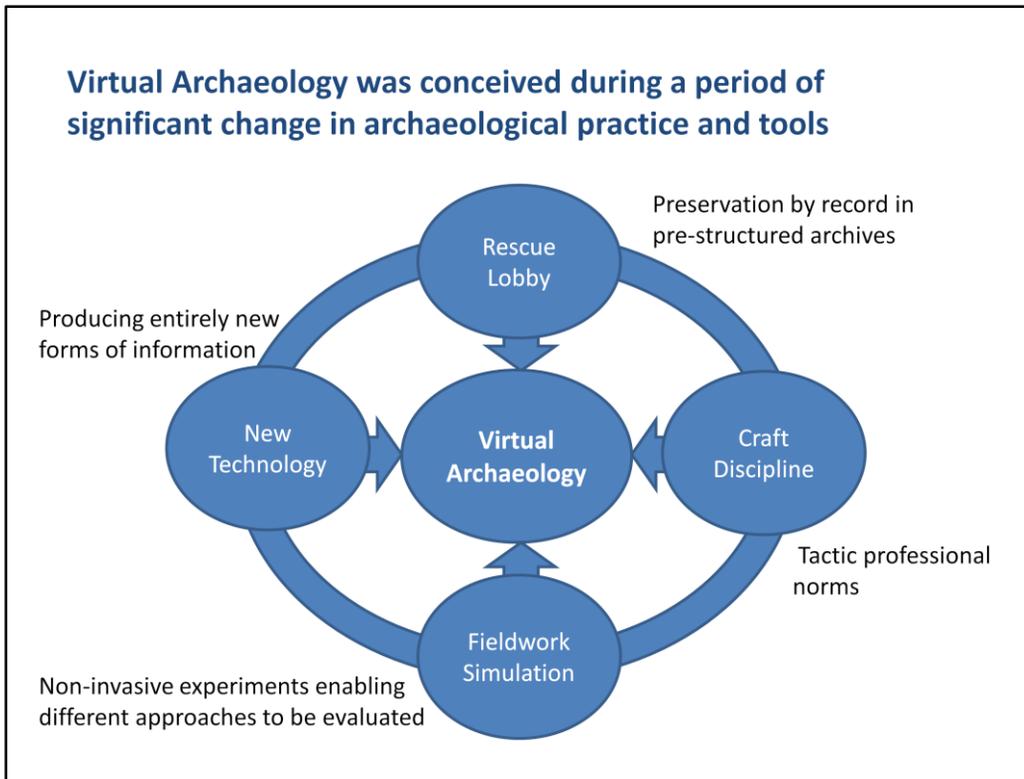
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The excavator in creating one kind of archaeological record effaces the original, 'proper', material continuum from which the record is censored, and an archive created. The archive then becomes, according to Derrida, the place where things begin, the new starting point the nexus of a new reality, where impressions, collected while 'digging', become embedded in the self-replicating topology of the archive. Other potential realities are lost in an institutionally induced amnesia, and all the selections and decisions that brought the report-writers to this point along the path are largely forgotten, with other voices being muted, and nuanced narratives deflected into the margins



Four principal factors lead to the conception of virtual archaeology in 1990: *Rescue* archaeology lobbies had successfully positioned archaeological remains as priceless, irreplaceable resources under threat. If the remains could not be preserved *in situ*, a quasi-scientific system known as ‘preservation by record’ would be deployed; which involved recording observations into a *pre-structured* archive.

Archaeology, however, is a craft discipline. The use of tools, be they material, digital or conceptual, involves many tactic conventions that rarely get challenged; that is until new tools make possible the production of entirely new sorts of data, information, interpretation and, ultimately, archaeology

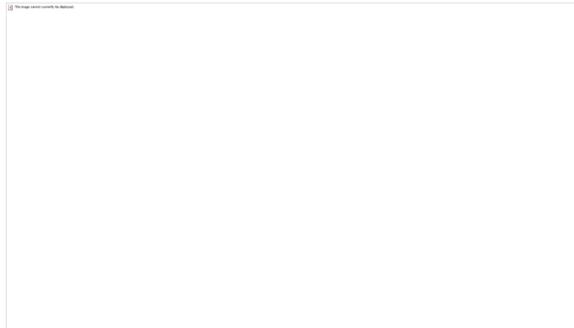
In the 1980's archaeologists were embracing the rapidly expanding field of computer modelling and visualisation as vehicles for data exploration. Hypertext was also a very exciting emerging technology,

Additionally, a number of innovative simulation studies evaluating survey methods and data processing had been published e.g., Fletcher & Spicer ‘s Clonehenge.

Virtual Archaeology was originally used to describe a multi-dimensional approach to the modelling of the primary physical structures and processes encountered in field archaeology

Modelling primary archaeological formations and processes to enable new ways of documenting, interpreting, annotating and narrating

Exploring the interplay between digital technologies and conventional archaeological practice



'Towards a Virtual Archaeology' CAA 1990 Revisited

In 1990, remember, excavation was acknowledged as an *unrepeatable experiment*. The challenge then was to demonstrate that the decisions on how to explore the raw archaeology have a decisive influence on the reported outcomes. We needed something that could be explored repeatedly in many different ways. The impasse was broken by invoking the concept of *virtuality*.

Virtual archaeology described the way in which technology could be harnessed in order to achieve new ways of documenting, interpreting and annotating primary archaeological materials and processes, and invited practitioners to explore the interplay between digital and conventional archaeological practice. The intent was to incite an epistemological rupture in conventional archaeological recording and representation of excavation data by demonstrating the arbitrariness of conventions, such as section- or plan- drawings and photographs, whilst demonstrating the possibility of developing new, radical, recording strategies, the relative advantages of which could be examined, discussed and evaluated in a non-destructive archaeological context.

In other words *Virtual Archaeology* was not only about 'what was' and 'what is' but a generative concept allowing for creativity and improvisation, in other words 'what might come to be'.

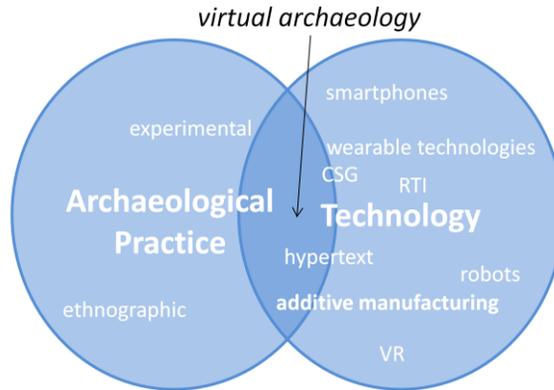
Virtual archaeology has become associated most strongly with the use of 3D computer graphics in archaeological research. There can be little doubt that these activities form a part of what might be considered virtual archaeology but **they do not comfortably** define the limits of the original term. I must make clear that term *virtual reality* was deliberately avoided, and the non-graphical aspects of modelling

were highlighted.

The *spirit of virtual archaeology* renders explicit the dynamic relationship between archaeological practice and technology

The spirit of virtual archaeology remains an adaptive concept

- Authentically archaeological
- Inherently changeable
- Technologically contemporaneous



Of paramount importance is the need to focus on the practice of adopting technology as well as the technology itself

Reifying virtual archaeology into a specific technology amalgam is to miss the point. The notion behind virtual archaeology was, and remains, useful for emphasising the intersection between technology and archaeological practice. For want of a better term, the *spirit of virtual archaeology* describes something which is inherently changeable, and which depends on the availability of technology and its potential utility within a specific situation.

The specific technological emphasis says more about the state of technological development than it does about the essential meaning or relevance of the term. Recent technological developments have led to a proliferation of devices and software which augment, and often enhance, the human experience of the world. Consider, for example, wearable technology, the ubiquity of increasingly powerful smartphones, or the development of 3D printing. These latter technologies do not immerse but rather they augment. They allow the user to engage with the material world in tandem with digital technology. They are authentically tactile in that they form part of our bodily engagement with the world, offering renewed sensorial prominence and perhaps more cognitive depth through material engagement.

Such technologies require a model of virtual archaeology which could not have been foreseen 20 years ago. However, the essential need to experiment with the use of technology, to play with it and to find new archaeological applications remains constant. What remains of paramount importance is the need to focus on the practice of adopting technology as well as the technology itself. I would say that there is plenty of scope for more virtual archaeology!



The history of virtual archaeology may be regarded as an extended anxiety discourse

- The term virtual archaeology was first coined in 1990 (Reilly 1991)
- Virtual archaeology and virtual reality become entangled (Forte & Sarti 1995)
- Does virtual archaeology exist? (Pujol 1998)
- Mimesis, virtually real 'manufactured deficiencies' or 'manufactured intensities'? (Gillings 1999, 2000)
- Heuristic devices for empirical hypothesis testing (Frischer 2008)
- International principles established with the Seville Charter (2010)
- Proposed moving on and recasting as 'cyber archaeology' (Forte 2010)
- Calls to include tangible cognitive depth (Kirsh 2010)

Scenario Planning: introducing new tools and techniques into archaeological organisations

