A future for GIS in archaeology: the integration of theory and analysis

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Abstract

This paper reviews aspects of the development and use of GIS in archaeology since its introduction in the late 1980s. A major tension that has developed since that time has been how, and whether, GIS can be used to model the qualitative understandings of past life that are central to post-modernist archaeologies. There is no doubt that GIS has been highly successful within various areas of archaeology as tools for mapping and quantitative analysis although the question remains as to whether that is enough. The main response to this has been attempts to model vision and movement through the use of line-of-sight/viewsheds and least-cost-paths/cost surfaces as ways of understanding past 'perceptions' of landscape. In this paper we critique these approaches and, using the Hillforts of the Ridgeway Project as a case-study for recent work, suggest ways of integrating theory and new forms of analysis. This involves concepts of intentionality, near-, mid- and far-distant vision and the use of cultural markers in the landscape as waypoints. The Hillforts of the Ridgeway Project was a major fieldwork project investigating the development of landscape and the Ridgeway path through later prehistoric and Romano-British times, c.1,000 BC to AD 400, in central southern England.

Keywords: GIS, archaeological theory, visibility, movement