

GEOGRAPHICAL INFORMATION SYSTEMS IN ARCHAEOLOGY

The study of geographical information systems (GIS) has moved from the domain of the computer specialist into the wider archaeological community, providing it with a powerful tool for research and data management. This clearly written but rigorous book provides a comprehensive guide to the archaeological uses of GIS. Topics covered include: the theoretical context and the basics of GIS; data acquisition including database design; creation of elevation models; exploratory data analysis including spatial queries; statistical spatial analysis; map algebra; spatial operations including the calculation of slope and aspect, filtering and erosion modelling; methods for analysing regions, visibility analysis; network analysis including hydrological modelling; the production of high-quality output for paper and electronic publication; and the use and production of metadata. Offering an extensive range of archaeological examples, it is an invaluable source of practical information about GIS for all archaeologists, whether engaged in cultural resource management or academic research. This is an essential handbook for both the novice and the advanced user.

James Conolly is former Lecturer in Archaeology at University College London and now Canada Research Chair in Archaeology at Trent University, Canada. Alongside the archaeological uses of GIS, his research interests include settlement and landscape archaeology, quantitative methods and population history, especially as applied to the origins and spread of agriculture and Aegean prehistory.

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