Finally, Leriou studies the development of modern archaeology in Cyprus, and Kotsonas the mounting of exhibitions concerned with the archaeology of Troy. Both are primarily concerned with the interaction between archaeology and the socio-economic setting within which it takes place; Kotsonas is particularly concerned with the political agenda of the countries and institutions hosting the exhibitions, while Leriou is more interested in the development of a distinctively Cypriot archaeology that is not regarded as merely a sideline of Greek archaeology.

Both these last papers are well worth reading, and it will be clear from my comments that this is essentially true of all of them; even if their topics are quite limited, all nevertheless offer food for thought about wider aspects of Greek history and archaeology.

McDonald, W.A. and G.R., Jr. Rapp (eds) 1972. *The Minnesota Messenia Expedition. Reconstructing a Bronze Age Regional Environment*. Minneapolis: University of Minnesota Press.

McDonald, W.A., W.D.E. Coulson, and J. Rosser (eds) 1983. *Excavations at Nichoria in Southwest Greece Volume III. Dark Age and Byzantine Occupation*. Minneapolis: University of Minnesota Press.

Tomkins, P., Unpublished. Paper given 20th January 2016, at the Mycenaean Seminar, Institute of Classical Studies, London.

Oliver Dickinson
Reader Emeritus
Durham University, UK
otpkdickinson@googlemail.com

Apostolos Sarris (ed.). *Best practices of geoinformatic technologies for the mapping of archaeolandscapes.* pp. iv+269, colour and b/w illustrations. 2015. Oxford: Archaeopress. ISBN 978-1-78491-162-1 paperback £44; e-publication £19.

This edited volume is a product of the POLITEIA project / Action KRIPIS funded by the Ministry of Education, Greece and the European Regional Development Fund / European Commission and contains 25 articles of varying length and scope. It is evident from the title of the volume that there is a theme running through the articles that draws on concepts relating to best practice in a variety of geoinformatic technologies. Furthermore, the imagery and case studies that populate the pages of the volume are familiar to those with an interest in Greek archaeology, or the broader Mediterranean zone.

It is fair to say that the editor has been very ambitious in the aims and delivery of the volume. On first reading the titles of the articles one wonders where the real theme will be delivered. There are evident divisions in scale of investigation but also papers concerned with treatment of data in explicitly digital formats. These sit next to, seemingly, more tangential papers highlighting aspects of dating and provenance studies. Of course there is a clear thread through the book that relates to the description and understanding of landscapes of various archaeological types. The case studies that are offered, of which there are many, are based around common site-types and problems that are frequently discussed in journals, such as the Journal of Greek Archaeology. These highlight technologies that have become part of the tool-kit for all field archaeologists (eg. GPR, magnetometry) as well as introducing some that are increasingly of interest (eg. analysis of digital photogrammetry).

The volume itself can be divided crudely into three parts: prospecting for sites, analysis of digital data and other scientific techniques relating to landscapes. That final classification may seem rather vague but it is difficult to be more precise due to the dispersed nature of the content in the final few papers. It is a shame that the volume does not contain a final paper by the editor as the preface is more a statement of intent than a definitive assessment of the value of the volume.

A significant part of the volume is dedicated to the collection of data used for 'archaeological prospection' in its many forms. Ground based and remote / aerial components are well covered and the papers either focus on particular techniques or some specific archaeological problem that will be very familiar, such as the location of graves, exploring the interior of tumuli or discovering urban landscapes. The papers dealing with individual techniques are all good summaries of the present position with respect to each technique. Inevitably there are a few concepts that I would have dealt with differently, but not necessarily any better. I would however have preferred more depth in some of the technical explanations. The result is that there are some missed opportunities to convince potential users why best practice needs to be followed rather than just stating what the authors feel it should be. An example that can be used to illustrate this conundrum, and one that is often exposed in technical articles in edited volumes, is the short section on GPR processing which demonstrates types of data correction without providing substantive context. The case studies

partially provide the context but the reader really has to go to Cassidy (2009) to understand why these processes have to be used under particular circumstances. While one does not wish to be too prescriptive in short contributions I feel that greater use of flow charts (such as used in the papers on geomorphometry or the semantic web) could have delivered a better steer in some of the papers.

One of the major problems with technical papers is that it is often very difficult to make tried and tested techniques seem new and current. In general, the way to deal with this is by providing images that are unambiguous in clarity of content and suitable in terms of overall message. By and large the prospection papers managed this although some of the data images are a little small. The paper on Electromagnetic Induction (EMI) deserves a specific mention in that the article is infuriatingly short—in reality it is not really much shorter than many of the other offerings but I really liked the mix of theory and illustrations and simply wanted to read more. The EMI authors may lose many of the readers after the first equation but the less technical readers should persist as this leads onto an important discussion that explains why the technique can be used for archaeological purposes in a variety of ways. It is evident that this technique does not suffer from overfamiliarity (e.g. magnetometry) and it is easier to catch the attention of the reviewer. It probably also helps that this is a current hot topic in the technical journals. In fact, EMI is part of a highly fluid area of research and the irony is that it is almost impossible to state best practice in EMI; the authors do, however, identify those variables that need to be understood when choosing and deploying EMI.

Of the prospecting papers that were constructed around case studies, I think the overwhelming feeling is that they provided excellent context, particularly regarding the history of past success in a particular area. The paper on locating graves exemplifies this approach. Again this is another hot topic in many journals not least due to the overlap in methodological approaches within modern forensic search strategies (for example Ruffell and McKinley 2008). However, the summary which is titled 'A best practice for finding graves with geophysics' is far too short and abbreviates what are really quite complex arguments—the section is shorter than the article's acknowledgements and while I agreed with the conclusions I simply wanted a more detailed approach to this section. Inevitably it can be argued that it is difficult to be prescriptive regarding best practice when looking for graves, but there are elements of the search that can be distilled into guidance that has some long-term relevance. For example, I think that it would have been useful to have expanded the discussion on interpretation of anomalies in the context of this type of target. Interpretation and the categorisation of interpretation by 'confidence level' has its roots not only in petroleum extraction, as the author noted, but in commercial archaeological geophysics. Additionally, there are researchers who argue for this type of classification in investigations of both forensic (Ruffell and McAllister 2015) and archaeological (Gaffney et al 2015) graves and this volume could have added more substantially to that debate.

The central section of the volume deals with the analysis of digital data that relates to the interpretation of data at the landscape level. It is no surprise that the majority of these papers have GIS at their core and as a result these articles lend themselves to clear advice regarding data formats and strategies. The outcomes from this set of papers are very specific to the problem that has been identified. Some of the papers lead the reader into highly structured approaches to the past while others are very much geared towards engagement using 'mixed' reality applications. The latter mirrors the enhanced narratives that many archaeologists are now forced (quite rightly) to participate in. One of the benefits is that our base data, such as the geophysical and remote sensing data described previously in the book, find greater value as members of the public can see how interpretations can be built from digital data that in themselves relate to parameters that initially appear to have tenuous links to the past. Explaining how the pattern of magnetic variations can represent a structure is easier within an augmented reality application than via a grey literature report. I do not believe all of the papers give much in the way of best practice, but they certainly offer some good routes to take on the journey.

A couple of the papers deal with maps and documents more generally. These articles illustrate the internationalisation of research via on-line, and free, depositories and the linkages that can be explored. Some of these are wrapped up in pan-European directives while some of the interrogation is via ontologies that can be shared and bridged in a variety of application areas. The language of interrogation is also blind to country or geographical boundaries.

The final set of papers seem to fit less comfortably in the volume. However, the papers are required as the information that they add give depth to the interpretation of landscapes. Concepts of dating, activity, geomorphology and provenance studies are all substantive problems that need to be tackled in landscape analysis and these articles cover the tools that should be used. The papers are comprehensive as far as they can go in describing scientific methods in a small number of pages. I doubt if you would feel particularly expert having read these articles but they are based on recent research and are supported by reasonably up-to-date bibliographies.

There are some useful themes that are fundamental to the success of this book. Most importantly is the fact that many of the authors embrace different types of data and techniques rather than single methods. As a result, the papers often illustrate the integration of ideas and data that is increasingly commonplace in all archaeology. While there are examples of processing or corrections that can only be done on particular data types, I like the fact that blending and combining data is not regarded as complicated but a routine that we could all master.

Returning to the title of the volume, I suggest that the title may under-sell the content. The papers represent a snap-shot of good practice expressed around excellent case studies; the fact that the case studies are largely Mediterranean based means that the techniques are better focussed for this audience than, for example, Cowley (2011). I would, however, turn to Cowley's volume if I wanted inspiration from other parts of Europe. As some of the papers are reviews of applications I would think that I would look elsewhere for detailed information on good practice. The EAC guidelines (Schmidt et al 2015) would be useful to read alongside this volume.

Although there are a few minor typographic errors the papers are generally easy to read. This will help enormously in the editor's stated aim for archaeologists and cultural heritage professionals to integrate the techniques into the own research. There will be few archaeologists who will not benefit from dipping into this volume.

Cassidy, N.J. 2009. Ground Penetrating Radar Data Processing, Modelling and Analysis, in H.M. Jol (ed.) *Ground Penetrating Radar: Theory and Applications:* 141–176. Amsterdam: Elsevier.

Cowley, D. (ed.) 2011. *Remote sensing for archaeological heritage management in the 21st century*. Europae Archaeologiae Consilium.

Gaffney, C., C. Harris, F. Pope-Carter, J. Bonsall, R. Fry and A. Parkyn 2015. Still searching for graves: an analytical strategy for interpreting geophysical data used in the search for 'unmarked' graves. *Near Surface Geophysics*, 13(6): 557–569.

Ruffell, A. and S. McAllister 2015. A RAG system for the management of forensic and archaeological searches of burial grounds. *International Journal of Archaeology*. *Special Issue: Archaeological Sciences* 3: 1–8.

Ruffell, A. and J. McKinley 2008. *Geoforensics*. Hoboken (NJ): Wiley and Sons.

Schmidt, S., P. Linford, N. Linford, A. David, C. Gaffney, A. Sarris and F. Fassbinder 2015. *EAC Guidelines for the Use of Geophysics in Archaeology: Questions to Ask and Points to Consider*. Europae Archaeologia Consilium.

Chris Gaffney
University of Bradford
C.Gaffney@bradford.ac.uk

Peter Schultz and Ralf Von den Hoff (eds). *Structure, Image, ornament: architectural sculpture in the Greek world.* (Proceedings of an international conference held at the American School of Classical Studies, 27-28 November 2004). pp. vi+238, 178 b/w illustrations. 2009. Oxford and Oakville: Oxbow. ISBN 978-1-84217-344-2 hardback $80.

Greek (and Roman) architectural sculpture has frequently suffered reductive treatment from scholars. Either it has been broken up into stand-alone artworks divorced from their original display-contexts and studied only for what they can tell us of the development of style and subject, or it has been treated as ancillary to the building, or, in the case of temples, preparatory to the worshipper's experience of the statue inside.[1] This is in part a matter of historiography: the removal and display by Grand Tourists of sculptural features such as the Parthenon and Bassai friezes only encourages this kind of looking. It is also in part a matter of logistics: architectural sculpture was always hard to see, and the use of photography to aid its modern study not only separates the sculpture from its setting even further but also magnifies and flattens it, transforming a three-dimensional object into a two-dimensional picture. But this is not all. The flipside to study that does not take the physical context of architectural sculpture seriously is work on ancient buildings that similarly fails to give consideration to their sculptural decoration. For example, in his *The Complete Greek Temples*, Tony Spawforth gives only slight attention to the sculpture used to adorn temple-facades, giving no more than a description of its form and characteristic subject-matter.[2] Mark Wilson Jones's recent *Origins of Classical Architecture* gives no attention to figurative sculpture.[3] Added to this the fact that the iconography of architectural sculpture is typically so standardised as to belie specific significance, or else, in some cases, so enigmatic as to evade certain identification, and it can be hard to know what, if anything, it is trying to tell us.

[1] For an overview of the scholarship, see Osborne 1987.
[2] Spawforth 2006.
[3] Wilson Jones 2014.