days between 1981 and 1983 in a rock shelter in Bauchi State of northern Nigeria, together with related studies that serve to set the excavation's results in their broader context. The excavations were directed by Allsworth-Jones, who has written three of the monograph's six substantive chapters and co-authored a fourth. The other chapters are contributed, respectively, by M A Sowunmi and E O Awosina and by R M Blench.

While it is welcome and convenient to have this important research conveniently presented in a single volume, earlier accounts of much of it were already in the public domain. The monograph's bibliography lists no fewer than nine publications on the investigation of Kariya Wuro that appeared in Nigeria between 1982 and 1984. While access to some of these works in other parts of the world is far from easy, it must be recognised that much of the information published in the monograph under review was technically already available. That being the case, it is a little disappointing that the new version has not always been comprehensively updated. Chapter V, on pollen analysis by Sowunmi and Awosina, for example, is virtually unchanged from a paper that appeared in The Nigerian Field in 1991; it contains important observations concerning an early occurrence of Elaeis guineensis (oil palm), but makes no reference to more detailed considerations of the early history of that plant's exploitation that have subsequently been published by Sowunmi and others.

For readers in Europe or North America, who cannot readily gain access to the Nigeria-published preliminary reports, the monograph will, of course, be extremely useful. The standard of production is high, although some of the maps and tables lack detailed explanation. The description of the excavation itself makes disappointingly slight mention of stratigraphy: the perplexing 'diagrammatic section' (fig 22) providing no correlation with the 10cm-levels according to which the artefacts are tabulated. Your reviewer has personal experience of the difficulty of defining stratigraphy in African rock-shelter deposits, and can sympathise with the problems faced by the excavators of Kariya Wuro, but the reader of this monograph might expect a clearer statement of the problems encountered. Two phases of occupation were recognised on the basis of the presence of pottery, described in some detail, in the upper levels. Four radiocarbon dates were obtained, all associated with the later (ceramic) occupation, which appears to have occurred within the last 1,200 years. Stone artefacts were present throughout the deposits, but concentrated in the lower (aceramic) levels; analysis, however, lumps it all together and is limited to very broad categorisation, making no attempt to differentiate that associated with the two phases. It has long been known that the West African Late Stone Age comprised successive aceramic and ceramic phases, but the Kariya Wuro investigation has done little to expand this picture. No dating evidence was recovered for the aceramic phase.

Major difficulties have long been encountered in publishing the results of archaeological research in Africa, and in ensuring that such publications are available both in Africa and elsewhere. Over the past four decades, some African countries – perhaps most notably Nigeria, following a trend initiated by this Society's gold medallist, the late Professor Thurstan Shaw – have developed journals and other locally based outlets for publications aimed primarily at an expanding local market; however, some of these materials can be virtually impossible to obtain outside their country of origin, whether in other African nations or outside that continent. A corollary is the frequent impossibility of readers in Africa obtaining publications issued in, for example, Europe or North America; even if these materials can be imported, their price at current exchange rates can be prohibitive both for institutions and for individuals that are financed through African economies. The availability of publications online is resulting in some amelioration of these difficulties, but has not yet reached all parts of Africa where it is most needed, nor are all African publications available to readers elsewhere.

It is against this fragmented background that the Kariya Wuro monograph should be viewed. Its published price in Germany is €40 which, at the official exchange rate, represents 0.32 per cent of the maximum annual salary paid to a lecturer at a Nigerian university. This is the equivalent to a UK price of £137. Sales of this book in the African country to which it primarily relates are thus unlikely to be numerous.

DAVID W PHILLIPSON

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The Stone of Life: querns, mills and flour production in Europe up to c AD 500. By David Peacock. 244mm. Pp xvi + 220, 100 col and b&w ills. Southampton Monogr Archaeol new ser 1, The Highfield Press, Southampton, 2013. ISBN 9780992633608. £45 (hbk).

This was the last major publication of Professor Peacock and certainly it is not a dying whimper REVIEWS 433

but is broad and almost lusty (as in the old joke, holding the staff of life), informative and eclectic (and essentially self-published). He correctly acknowledges Chris Green for his illustrations and these certainly do aid the text, especially the mill varieties and their possible degrees of freedom.

As the title suggests, the opening five chapters (after an Introduction) describe saddle querns, concentrating on the Neolithic and the interrelationship between 'Neolithic querns and the spread of agriculture'; the mainly Mediterranean Olynthus mill; the revolution that was the rotary quern; Pompeian-style mills; and finally (water) power mills. A progression from (wo)man to beast to natural force-driven, from the portable to the highly static and from the 'simple' to complex and organised, but always a petrified reflection of (and response to) improving agriculture, especially cereal production.

The short Chapter 7 concentrates on grain and its milling and consumption. It includes recipes for spicy frumenty and its poorer relation, pottage, but mainly records milling rates (flour production) with the various querns and mills, giving both ethnographical and experimental data. Although there is broad agreement, and the results seem commonsensible, Peacock shows that more needs to be done, including his excellent suggestion that millstone wear-rates should be measured in order to help determine the working lifetime of a stone.

In Chapter 8, 'From quarry to user', all the expected rocks are there – the lavas from the Eifel district (Mayern/Niedermendig) and their 'counterparts' in the Puy de Dôme area and then the English ones, first the Hertfordshire Puddingstone (and its less familiar Norman antecedents), the eponymous sandstone from the Millstone Grit at Wharncliffe, Lower Greensand sandstones including those from Lodsworth Quarry – a site found by gritted determination and luck by Peacock – and the Kentish querns from the sandstone cliffs at Folkestone and more. This chapter brings to mind Professor J R L Allen's definitive Whetstones from Roman Silchester (Allen 2014).

Chapter 9, 'A matter of life and death', deals with the symbolism of querns and mills, drawing on the role of rotating mills and weighted millstones as metaphors in European folk tales, but missing one of the most germane, namely Jack and the Beanstalk/the Giant Killer and the very explicit Fe fi fo fum. I smell the blood of an Englishman. Be he living, be he dead. I'll grind his bones to make my bread. Less obviously, although

poor, intoxicating Sir John Barleycorn, who is cut 'skin from bone' or, in other versions of the song, 'flayed skin from bone', is given justified prominence, but (despite Peacock's interest in Mesoamerican querns and flour production) there is no mention of the Mexican god Xipe Totec ('Our Lord the Flayed One'), the god of germinating maize and hence of the rotating cycle of death/birth/rebirth; perhaps one analogy, or an elusive mystery, too far from Europe.

The final, Whiggish chapter, 'Methods into the future', is a mixture. It discusses the role of petrography and geochemistry in 'rock characterisation'; this is fairly familiar ground, but it also introduces the more novel use of organic residues (phytoliths) trapped in voids within querns/mills (akin in scope and promise to the research into organic residues smeared onto the insides of cooking pottery sherds) as a means of discussing cereal use. As with the rest of the book, it leaves a strong invitation for someone to continue the 'journey'.

Professor Peacock was perhaps the foremost British archaeolithologist of his time and many of his students have continued to travel his path. His petrographical (he would insist in earlier days – but not here – on using the incorrect term 'petrological', a minor disservice to archaeogeology that can be forgiven, but is best forgotten) work augmented by geochemistry was always to a purpose, mainly provenancing raw materials or assessing their suitability, but also the starting point for wider, more abstract and social concerns, as demonstrated throughout this volume.

Peacock was of the last, or possibly lastbut-one, generation taught petrography in a serious and rigorous fashion, so learning to respect and know its value (and limitations) in both lithic and ceramic studies, but he also lived in tandem with the infancy and adolescence of archaeological geochemistry. Indeed, he was godfather to some of it. In 2015 his death, compounded by that of Professor Vin Davis (singlehandedly responsible for the renaissance of the Implement Petrology [sic] Group in the last decade) and of John Watson (who performed much of the detailed geochemistry of the Stonehenge orthostats in the 1990s and twenty-five years later worked on the chemical and geophysical characterisation of Stonehenge debitage and Bronze Age bracers), has reduced our ability to discuss the 'biographies' of stone objects from their outset and from a rock-fast setting. These were researchers who knew that 'a wrong provenance is worse than no provenance' and that, although some lithologies can be correctly described macroscopically, accurate

provenancing requires good thin-section petrography supplemented by accurate geochemistry, plus experience. Already these truths are being neglected, perhaps even negated, and it may be that in fifty years the portable XRF machine, or rather its indiscriminate and uncritical use, will be seen as one of the banes of early twenty-first-century archaeology.

But it is to be hoped not, for this book encapsulates what could, should and can be done with an academic life filled with lithics, imagination and flair.

Allen, J R L 2014. Whetstones from Roman Silchester (Calleva Atrebatum), North Hampshire. Character, Manufacture, Provenance and Use: 'Putting an edge on it', BAR Brit Ser 597, Oxford

ROBERT IXER

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Ritual in Early Bronze Age Grave Goods: an examination of ritual and dress equipment from Chalcolithic and Early Bronze Age graves in England. Edited by Ann Woodward and John Hunter. 310 mm. Pp 616, 41 col figs, 7 maps, 26 charts, 158 tables, appendices, CD. Oxbow Books, Oxford and Philadelphia, 2015. ISBN 9781782976943. £80 (hbk).

This impressive tome represents the happy medium between compendium and academic treatise and is the result of a six-year Leverhulme Trust research project involving the careful examination of some 5,665 objects from 780 individual graves. Temporally comparing the Beaker and Early Bronze Age material, this project involved a bevy of experts whose thorough notes and material analyses from the entire country (with concentrations in Wessex, East Yorkshire and the Peak District) produced an archive of 5,860 photographs accompanied by detailed descriptions and systematic material identifications and analyses.

Perhaps the greatest advantage to this work is that it is organisationally very user-friendly. After discussing the range and scope of the project and its scientific methodology, *Ritual in Early Bronze Age Grave Goods* goes on to include six chapters that address items of grave equipment (eg belt fittings, daggers and objects made from bone or antler) and personal adornment (such as

buttons, dress pins, gold and necklaces). Each chapter is very clearly subdivided by type of object or object material and is addressed within the text by the specific specialist for that artefact/material category (ie Stuart Needham for copper alloys and Alison Sheridan for jet). Extant typologies were expanded upon or devised as needed.

The authors also took on the much-needed task of systematically examining necklaces by region as well as by material. This investigation accounts for nearly 200 pages of the text and is truly awe-inspiring in terms of the painstaking care and amount of detail that were required in its production. (To put this in the proper perspective, of the 5,665 items examined in this treatise, 4,778 were individual beads contained within a series of eighty-one necklaces.) However, this volume is a far cry from being 'merely' an expert and exhaustive compendium of English Beaker and Early Bronze Age (EBA) grave goods. The last portion of the book places the findings in context, addressing chronology, object life stories, object function and regional variation. Then comes a concluding chapter, though this takes more the form of project overview and assessment than in-depth consideration of major Chalcolithic and Bronze Age thematic trends.

Aside from the advances made by the investigation of copper alloys and the identification of various raw materials (including, notably, the use of Whitby jet in Wessex and Sussex within both the Beaker period and the EBA), some interesting conclusions were drawn in relation to the specific uses to which various categories of artefacts were put. Use-wear analysis indicated that many objects hitherto interpreted as tools seem in actuality to have been used as special costume elements (eg bone tweezers were more some kind of clip than a depilatory device). Indeed, ritual costume seems to have been the major overarching conclusion drawn from the book. The investigation of the use of heirlooms suggests that not only were they already present in Beaker times, but that their use remained fairly stable throughout the entirety of the periods under investigation. Although some trends were noted for specific kinds of heirloom necklaces (or parts thereof), the authors recommend that further experimental research be conducted for their fascinating conclusions to be ratified.

Although Ritual in Early Bronze Age Grave Goods does not delve into the body of theory involved in Bronze Age studies, the conclusions it draws are an excellent stepping-off point for future material-based research in that vein both within England and abroad. Although it would