sample sizes with which he is working. For instance he argues that Star Carr type assemblages are restricted chiefly to northern England, but he only has seven, three of which are in northern England, two in southern England and two in south Wales. I am sure that when he writes that 'each assemblage-type may have operated a different settlement strategy' he is not really envisaging these artefacts wandering around the landscape themselves, but this slip does emphasise the need for Mesolithic studies, as much as those of the Palaeolithic, to do what Gamble calls for elsewhere in the volume, to 'return an individual humanity' to our studies. That said, I would not want to dismiss the value of Reynier's article: attempting to get a better handle on the variability within the early Mesolithic must be one of our priorities in Mesolithic studies and he is approaching it in precisely the right way. Scattered through the volume are further small nuggets of good archaeology. Ashton and Dean describe the refitting of a core and 14 flakes from Barnham which they proudly describe as the most complete re-fitted sequence from Britain. As they note, refitting is now an unrivalled tool for the study of technology. This is fine, but I do feel that it is time that refitting went beyond its gee-whizz phase, the realisation that the knapping actions from perhaps 10 minutes of the life of one individual from half a million years can be reconstructed, to exploring quite what we can learn from refitted nodules about past behaviour and cognition that is otherwise unavailable. Experimental archaeology is perhaps a good rival for refitting status, and I liked John Lord's description of his manufacture of an Obanian harpoon. This provides insights into the time taken to make such implements and consequently how they may have been treated in the past.

Healy's contribution regarding Neolithic and Bronze Age occupation in the Breckland is most interesting. Her key question is why was so much time, labour and skill invested in the extraction, at some risk, of floorstone material from Grimes Graves for products which could have been made on flint from superficial deposits? Her answer is the aesthetic appeal and value of flint that had been extracted at great cost. Elsewhere in her article, however, she notes that the floorstone can only be distinguished from other more easily obtainable flint by its cortex; when absent the sourcing of sound black flint is essentially a guessing game. It seems odd, therefore, that the floorstone should have been transported in a decortical state as by doing so it could not be identified as floorstone and consequently would loose its appeal as coming from a high cost source.

There is a lack of space within this review to comment directly on other articles: suffice to say that with further contributions from John McNabb, David Bridgland, Simon Lewis, John Gowlett, P A Harding, Katherine Scott, Elaine Turner, Stephen Aldhouse-Green, Peter Woodman, R N E Barton, Martin Street and Peter Robins, there is a wealth of further information within this volume about specific sites, regions and ideas. There does not appear a weak paper among them. Almost all have several high quality illustrations and the volume is very well produced. Overall it provides an excellent insight into the current nature of lithic studies regarding the Palaeolithic and Mesolithic of Britain (with the added extras as noted above).

The dominant message from this volume is the high regard with which John Wymer is held and his pervasive influence on the work and careers of so many stone age archaeologists. Article after article acknowledge his contribution: as a stalwart supporter of research, as the master of regional synthesis, as a fellow-craftsmen to the Acheulian people, as a man with an intuitive sense, as a great excavator. Numerous others refer to how it was Wymer that introduced them to Pleistocene studies, and to his warm hospitality and congeniality. These are fine and appropriate tributes. But the greater one is the quality of the archaeology represented within this volume. It shows stone age archaeology in a very healthy state whether it is reconstructing the minute to minute knapping actions from half a million years ago, creating regional synthesis, or describing new sites and interpretations.


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The editors have compiled a collection of papers by twenty-two authors. The foreword hints at the inevitable difficulties and delays accompanying such an enterprise and it should be noted that most of the contributions were written between 1989 and 1993, but not since updated. Notwithstanding the title, one paper deals with the Portuguese Mesolithic. Within the Palaeolithic itself there is an imbalance with a weighting towards Lower Palaeolithic and Upper Palaeolithic sites. Overall, however, a commendable range of themes is explored including raw material exploitation; the complex inter-relationships of technology and typology with raw material and subsistence; and use-wear and methodology. The terms non-flint or hard-rock seem clumsy and I would suggest using the noun 'petrolith' (from Greek πέτρα (rock) and ιθος (stone)) and the adjective
‘petrolithic’ to convey this meaning.

The only structure given to the text is a surely inappropriate geographical division into Spain and Portugal. As a consequence, it is difficult easily to identify the intellectual questions posed by the work or to track down recurring themes. It is unfortunate, in this regard, that the editors had not taken the opportunity presented by the foreword to review the range and content of the papers and, thereby, both to explain and interpret the contents of the volume. In detail, one may comment that there is no index, the drawings are often poor or visually illiterate; many, indeed, have simply been borrowed from Iberian publications with no change of language to match the text. BAR has done the authors no favours by accepting the monograph in its present form.

It is impossible, in the context of a review, to deal fully with the total content of such a volume and my comments here will be limited to selected papers which are, to some extent, illustrative of the whole. Santonja (pp. 1-20) reviews the evidence for the Lower Palaeolithic in Spain. The survey, wide ranging and well referenced, provides a valuable overview of the evidence which consists, unfortunately, of little more than collections from sites with limited dating or contextual evidence. Certain themes may be identified, including the apparently consistent use of local raw materials. The impact of raw materials on typology and artefact size is fully acknowledged and the Bordeesian concept of a ‘Southern Acheulian’ is now seen to have been based on a lack of appreciation of raw material constraints. Most sites seem to have had few artefacts, even the Gran Dolina at Atapuerca having only 10 per m². Even so, such sites as Atapuerca, Torralba and Ambrosa (controversies of interpretation not revisited), Cuesta de la Bajada (a late Middle Pleistocene site with evidence of an in situ stone paving), and the Guadalquivir terraces, shine — in different ways — as beacons of light.

Comparable problems of lack of contextual information plague the Portuguese palaeolithic. Here, Meireles and Cunha-Ribeiro (pp. 141-49) provide a regional raw material survey and use it to draw attention to an apparently genuine gap in settlement distribution in parts of north west Portugal in areas otherwise well provided with raw materials for knapping.

De Quiros and Cabrera Valdes (pp. 21-32) have written a paper of some importance on ‘raw material in the Palaeolithic of Cueva del Castillo and in the Cantabrian region’; this deserves more space. At the Cueva del Castillo, raw material use underwent change over time which can be related, in part, to function. Thus, black limestone in level 18 seems to have been selected for heavy duty butchery. Overall, however, flint shows a progressive increase from a negligible level in the Lower Palaeolithic to as much as 87.5% in the Upper Magdalenian. Quartzite is predominant up to and including the Aurignacian levels but declines thereafter. Overall, in Cantabria, there is wide local variation in the use of raw materials, closely related to both function and availability: for example, the use of ophite or coarse-grained quartzite for cleavers or, later, a clear preference at some sites, such as Las Caldas or La Riera, for quartzite for Solutrean concave base points. Interestingly, several sites are argued to present possible evidence of a local evolution from Mousterian to Lower Perigordian, or Mousterian to Aurignacian. This is witnessed by, for example, the appearance of carinated and nosed end-scrapers in the Mousterian levels of Morin, Pendo and Castillo. Similar mixing, but here interpreted as acculturation, is seen in the ‘Cantabrian Upper Perigordian’ where Aurignacian elements, particularly thick end-scrapers, accompany Gravette points, Noailles burnis or Font Robert points. These Upper Perigordian elements, in contrast to the Aurignacian component, are invariably manufactured in flint. Both a Middle and an Upper Solutrean are recognised. The former, present at Castillo and Caldas and, perhaps, at Hornos de la Peña, is characterised by cruder artefact types with greater use of percussion flaking and an absence of parallel retouch. The Upper Solutrean, typified by notched and concave base points, displays regional variation. In the west of the area concave base points predominate and there is overwhelming evidence there of the selection of quartzite as the preferred raw material for their manufacture. It is tempting to see this deliberate selection as reflecting the preference of specialist craftspeople. Cultural mixing is again evident at the level of the Solutrean/Magdalenian interface. The authors interpret this mixing as the result of the imposition of intrusive elements ‘on a pre-existing substratum’. Such a view of these interfaces as exhibiting culture-lag is perhaps feasible but the authors do not seem to have considered the possibility of sedimentary mixing. This question of stratigraphic integrity, which has been the subject of recent challenge, is of crucial importance for the interpretation of the Mousterian/Lower Perigordian/Aurignacian interfaces and is in urgent need of review (D’Errico et al. 1998). The chapter concludes with a clear statement of the importance of the identification of raw material sources and argues that a better understanding could be achieved of the use of these materials based on the principle of the chaîne opératoire.

Straus’ paper (pp. 37-41) on the ‘use of quartzite in the Upper Palaeolithic of Cantabrian Spain’ examines some of the key elements considered by de Quiros and Valdes. A good account of the distribution of raw materials would have been further improved by the addition of a map of Cantabrian Spain showing named sites and regions. A key factor is a higher occurrence of quartzite in Upper Palaeolithic assemblages in the west
of the region, contrasting with a high percentage of flint in the east. As Straus notes, the increase in the petrolithic index, as one moves west from the Basque country through Santander to Asturias, means that the classic de Sonneville-Bordes/Perot typology of south-western France becomes increasingly less relevant and meaningful. One reason is simply that preferred artefact sizes vary with raw material. Also, functional variability may be exemplified by contrasting selections of raw materials: quartzite for concave base points or flint for shouldered points. Here, Straus argues that the quartzite points—which weigh twice to four times the weight of flint points with respective ranges of 4-9 grams compared with 2-4 grams—were designed to tip throwing or thrusting spears, whereas the shouldered points were used to tip projectiles propelled by spear-throwers or, even, bows. My own research on this issue, albeit conducted in the different cultural milieu of Holocene Britain, there identified 8 grams as a dividing line between two putatively different functional groups, although comparative evidence was adduced to suggest that the upper weight limit for arrow-points would probably only rarely exceed 14 grams (Green 1980: 48, 173). The latter figure does not lend substantiation to the hypothesis of functional differentiation based on the weights of these Spanish points. Rather the variation may arise from competition between specialists either exploiting different resources or, perhaps, working respectively in competing traditional and innovatory materials. In addition to these other considerations, Straus also documents the increasing specialisation in flint as a raw material in the Upper Palaeolithic compared with the Mousterian. Contrasting with this is the remarkable reappearance of bifaces, choppers, chopping tools, denticulates and side-scrapers—all characteristically of quartzite—in the Solutrean and Magdalenian levels at La Riera.

This important volume covers the vastly interesting fields of the Iberian Palaeolithic and its raw materials, but the petrolithic dimension of the volume surely misses the point. Rocks of all kinds were used for knapping, both petroliths and many kinds of flint. Moreover, the sources of these raw materials display geographical variation and may not all have been contemporaneously accessible. The focus of this compilation is, in reality, rather wider than that of non-flint rocks. Indeed, the book would seem to have outgrown its original concept which lurks, nonetheless, like a Pleistocene ‘lag gravel’ in the title. Undoubtedly this BAR will serve as an important quarry for students and scholars, but it is not user-friendly.

References


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The Ras-el-Kelb Cave is located 15km north of Beirut, on a prominent headland on the Lebanese coast. Despite intermittent exploration since its discovery in 1874, the most notable excavations at the site were by Dorothy Garrod and Germaine Henri-Martin, the latter daughter of the excavator of La Quina. Following a number of obstacles to publication of the excavations—not least of which were the deaths of Garrod and Henri-Martin—it is pleasant to see such an important site brought to such a comprehensive and attractive publication.

Garrod aficionados will find much to entertain and educate. The volume begins with a welcome English translation of Garrod’s and Henri-Martin’s 1961 preliminary report originally published in Bulletin du Musée de Beyrouth XVI, from which we learn that a Levalloiso-Mousterian similar to that of the caves of the Wadi Mughara was recovered from what the excavators refer to as two distinct ‘operations’ in the cave—the ‘Tunnel Trench’ and the ‘Rail Trench’. Perhaps the rather militaristic terminology is not surprising given that the route through the promontory that perhaps attracted the cave’s earliest occupants was well-known to armies from the troops of Rameses II to the Second World War. Chapter 3 reproduces Garrod’s excavation diary, which combines useful information with a fascinating insight into Garrod’s field techniques, within which are such gems as: ‘...tent was put up during lunch hour. It nestles in the shelter of the dynamite store! It is a very great comfort as the cold wind from the west has been odious’ (26/2/59), ‘...the roof does not look safe’ (11/3/59).