

1. INTRODUCTION

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BACKGROUND

The papers in this volume originated as a series of presentations for the Lithic Studies Society day meeting *Palaeolithic Archaeology of the Solent River* held on 15 January 2000, and hosted by the Centre for the Archaeology of Human Origins (CAHO) in the Department of Archaeology, University of Southampton. The germ of the meeting came from a small investigation into the collections of Palaeolithic material from terraces in the Highfield area of Southampton (Chapter 6). This investigation highlighted the distinctive nature of at least some material from the Solent region, and suggested it was high time more attention was focused upon studying the prolific evidence from this relatively neglected region, which, along with East Anglia and the Thames Valley, is one of the three main areas in Britain where surviving Palaeolithic evidence is concentrated (cf. Roe 1981: 132–3).

At the same time, a number of workers had recently finished or were starting doctoral research into different aspects of the Palaeolithic of the Solent region. Hosfield (1999) had investigated the potential of the predominantly derived Palaeolithic material of the region to investigate demographic trends and landscape exploitation strategies at a macro scale, based on modelling artefact densities in terrace gravel units at broad temporal resolutions. Chambers was starting to investigate the taphonomy of the Palaeolithic archaeological collections from the region. And finally, at the instigation of Hampshire County Council's Archaeology Section, Terry was starting to work on modelling the Palaeolithic archaeological potential of Pleistocene deposits in Hampshire, in an attempt to identify, and most importantly predict, the location of those of highest potential (cf. Wilkinson, Chapter 10).

Alongside this groundswell of renewed archaeological interest, a number of Quaternary geological investigations had also recently taken place. The Southampton area was chosen in the early 1980s for a case study into the potential of geological mapping to feed into the land-use and strategic development planning functions of local government (Edwards *et al.* 1987). One of the many useful products of this project was revised BGS mapping of the Quaternary deposits of the area, and the recognition of 14 distinct fluvial terrace formations (Edwards & Freshney 1987), three of them

submerged under the Solent (Dyer 1975). This was complemented by revised BGS mapping of the Quaternary of the Bournemouth area, where Bristow *et al.* (1991) also identified 14 terraces, and the work of Allen & Gibbard (1993) who identified 19 separate terrace units along the south coast between Bournemouth and Southampton Water. Unfortunately no overlap was made between these units and the terrace sequences established by the BGS, leading to detailed adjacent local sequences with uncertain correlation (cf. Wymer 1999: 108, Table 9).

An added complication is the general lack of biological evidence in the Pleistocene deposits of the Solent region, leading to problems in chronometric dating and in establishing correlations between the terrace sequences of different river valleys within the region, and of these terrace sequences with the wider Thames lithostratigraphic sequence and the global Oxygen Isotope framework. Meanwhile, to the east of Southampton, the sequence of Quaternary raised beach and associated deposits of the Sussex coastal plain had also recently been studied by Bates *et al.* (1997). As pointed out by Bates *et al.*, in a theme taken up in this volume (Chapter 4), the best hope for dating the Solent sequences may lie in establishing direct lithostratigraphic relationships of the Solent formations with the better dated Sussex deposits where the deposits of these two regions overlap in the Portsmouth area.

Given this background of freshly completed and ongoing work in the region, the main purpose of the meeting was to bring together Palaeolithic archaeologists and Quaternary geologists working in the region to discuss the implications, and possible beneficial cross-fertilisations, for each other of this research, and to share the preliminary results of work in progress. It was also an opportunity to review the range of focus of current Palaeolithic archaeology and to highlight to the local curatorial community both the diverse nature of significant Palaeolithic evidence and the integral role in Palaeolithic archaeological research of Quaternary studies. For many in a curatorial role, Palaeolithic archaeology is an esoteric discipline with rapidly changing theoretical perspectives brought to bear in its study. This, together with the natural geological context of the unimpressive (to some!) bits of stone which are its bread and butter, and the tenuous chains of thought by which this evidence is transformed into knowledge, makes it hard for many

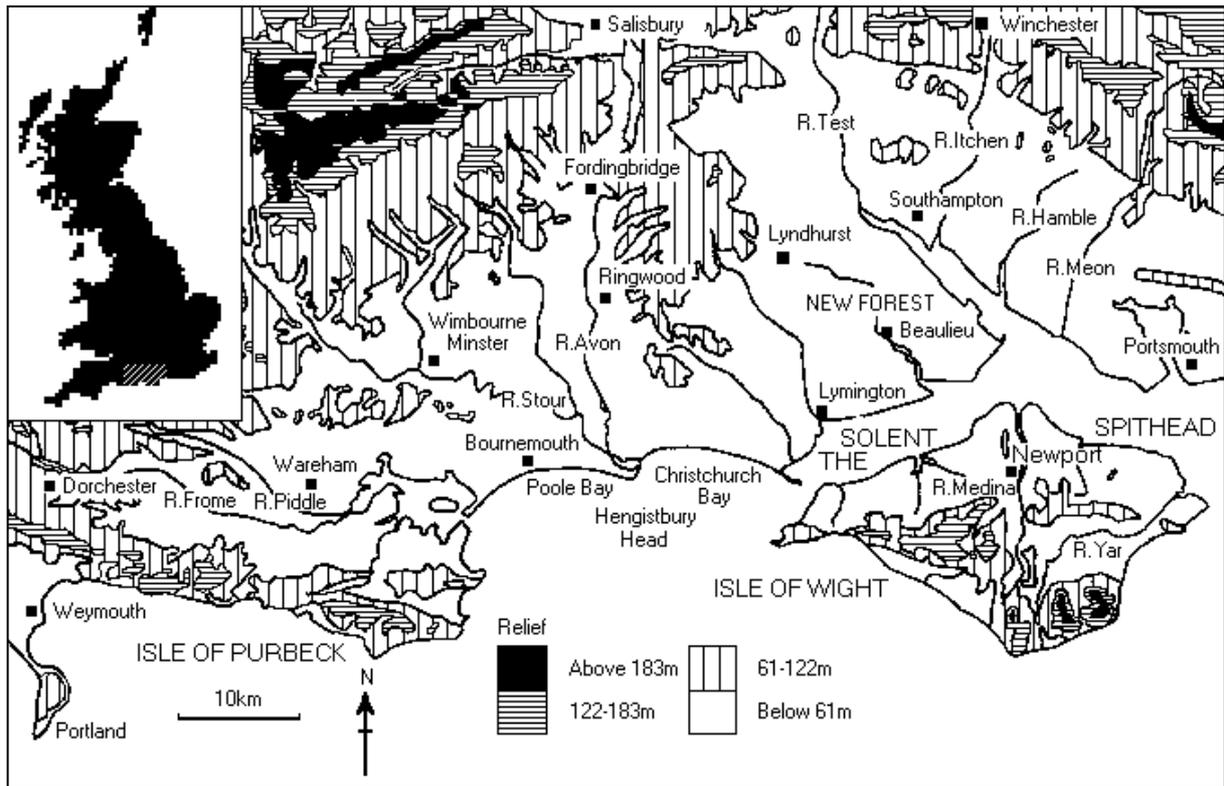


Figure 1.1: topography and drainage of the Hampshire/Solent River Basin (Hosfield 1999: Figure 2.9, after Allen & Gibbard 1993)

curators to bring the full weight of the planning mechanism to bear on protecting the Palaeolithic archaeological resource and mitigating the impact of development. If the needs of the Palaeolithic heritage are to be met under the framework of PPG 16 (Department of the Environment 1990; Wenban-Smith 1995), it is incumbent upon those actively working in this specialised area to engage proactively with curators, and to explain the nature and potential of the Palaeolithic archaeological resource, to help bring the Palaeolithic on board as part of the cultural heritage, on a par with any Neolithic henge or Roman villa.

If one had to select just one key issue that arose from the meeting, it would be the problem of establishing dates and correlations for the proven artefact-rich Pleistocene deposits of the Solent region. Palaeolithic archaeology is a human historical discipline, and accurate dating is essential to document events in relation to each other to allow the building up of a picture of the degree and spatial scale of contemporary variability, and the trajectories of cultural stasis and change through the changing climatic framework of the Pleistocene. As mapping and lithostratigraphic correlations of depositional units become more detailed, accurate dating of even a few key units can provide foundations to tie in the whole sequence, and its contained archaeological horizons, with the wider national and international frameworks. This dating will most likely be achieved from the study

of biological evidence — pollen, large vertebrates, molluscs or small vertebrates — from archaeologically sterile Pleistocene deposits. Thus a central aspect of the Palaeolithic archaeological agenda in the region has to be the discovery and study of such deposits, for they surely exist somewhere beyond the very few locations where biological evidence has already been reported. It is to be hoped that the curatorial community in the Solent region can follow the lead set in other regions such as Kent, Essex and Greater London in recognising that such deposits are an integral part of the archaeological record, and worthy of protection or mitigation under the current planning control mechanisms.

THE SOLENT RIVER REGION

The Solent River no longer exists, but through the majority of the Pleistocene was the main river draining the Hampshire Basin (Figure 1.1), which consists of a synclinal depression in the Cretaceous Chalk filled in its central part with Tertiary deposits, with a predominantly east-west long axis dipping slightly to the east. Chalk capped with Clay-with-flints outcrops on the high ground around the edge of the basin, forming the Wiltshire Downs, the North Dorset Downs, the Hampshire Downs and the Isle of Wight Downs. This basin is drained by a series of small rivers with

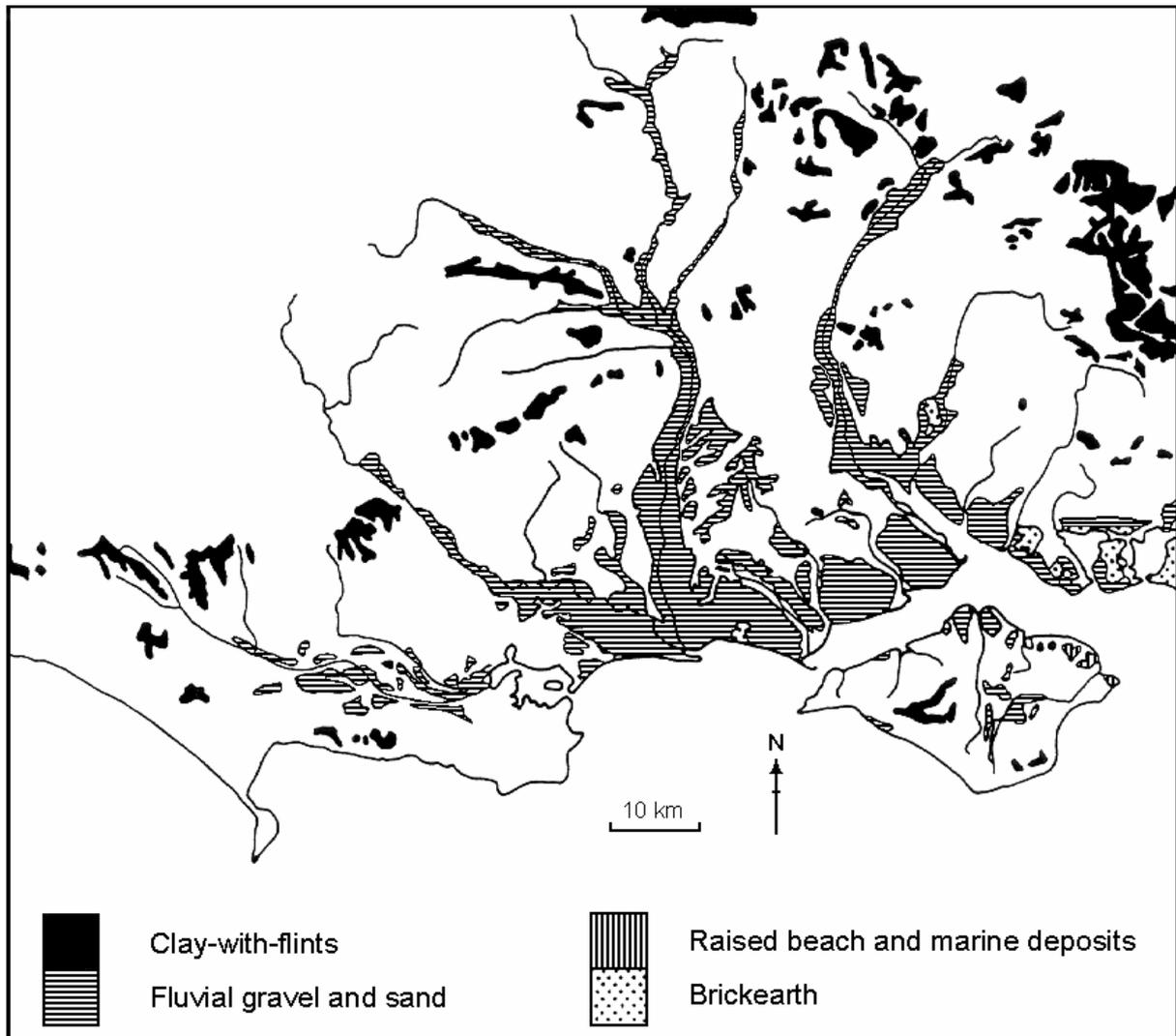


Figure 1.2: Pleistocene geology of the Solent region (Allen & Gibbard 1993: Figure 3)

their headwaters in the surrounding Chalk downland, in particular the Frome, Piddle, Wiltshire Stour, Wiltshire Avon, Test and Itchen on the mainland, and, on the Isle of Wight, the Medina and the Yar. The mainland rivers drain directly into the Channel in the present-day, due to the breaching of the southern Chalk ridge of the Hampshire basin between Durlston Head and The Needles, and those on the Isle of Wight drain north into the Solent. Through much of the Pleistocene, however, they would have fed a major east-west river, christened the Solent River by Fox (1862), the headwaters of which coincided with the present-day River Frome, and which would have passed through Poole Harbour and the West and East Solent to the north of the Isle of Wight, before heading south to join the English Channel.

The Hampshire basin contains extensive spreads of Pleistocene fluvial deposits relating to the evolution of its drainage through the period, concentrated in the valleys of the current rivers Frome, Stour, Avon and Test, and in a great swathe along the south coast

between Bournemouth and Southampton Water (Figure 1.2). Pleistocene raised beach deposits have also been identified in the eastern part of the region, near Fareham on the mainland (ApSimon *et al.* 1977), and at Bembridge and Priory Bay at the eastern tip of the Isle of Wight (Preece *et al.* 1990; Bridgland 1999). The study and interpretation of these deposits has been complicated by several factors including their proximity to the coast, the heavy sediment loads of such small rivers, the confluence in small areas of many of these rivers and the added problems caused by the major changes to drainage associated with breaching of the Durlston–Needles ridge. As discussed above, it is only recently that early BGS divisions, primarily on altitudinal grounds, into major groups such as “Plateau” and “Terrace” gravels have been superseded by more detailed differentiation, and there remains uncertainty over the interpretation, dating and correlation of many of the mapped units. Nonetheless there is no doubt that they generally cover the Quaternary, and it is hoped that the currently increasing

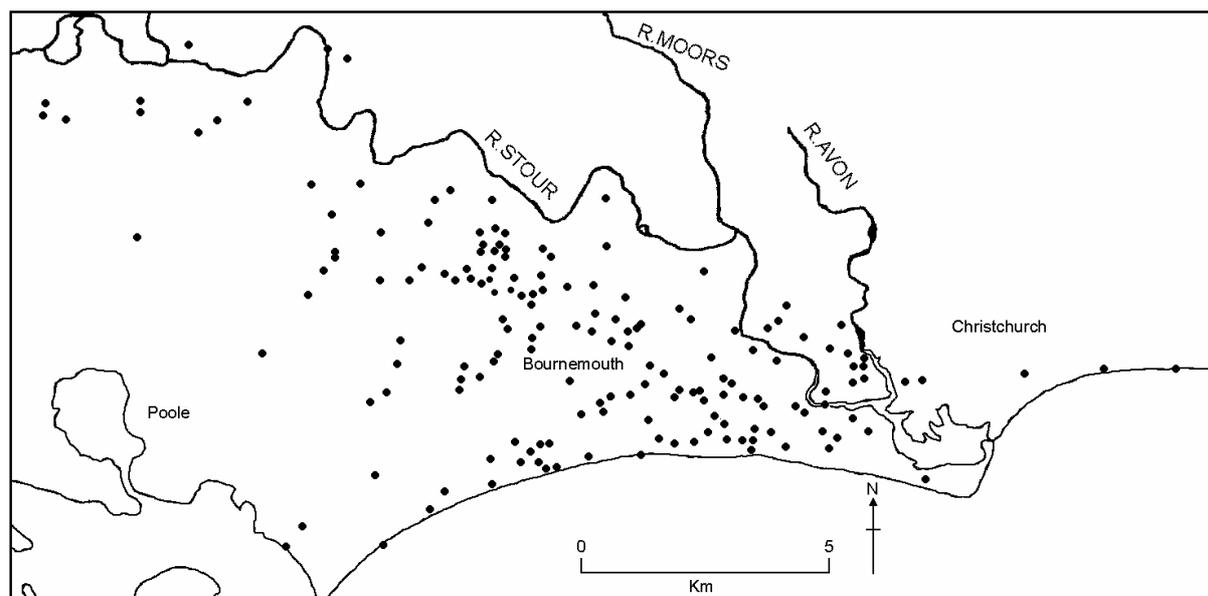


Figure 1.3: Palaeolithic find-spots around Bournemouth (after Wymer 1999: Map 23)

focus on the Solent region may lead to advances in these areas, as addressed in this volume by Bridgland (Chapter 3) and Bates (Chapter 4).

PREVIOUS RESEARCH

Following Evans' call to arms for a search of English Drift deposits for Palaeolithic implements early in the second half of the 19th century (Evans 1860: 307), the deposits of the Solent region were quickly recognised as amongst the richest. By the time of Evans' (1872) review, numerous find-spots for handaxes had been identified in Southampton and Salisbury, and in Avon Valley gravels further downstream at Downton and Ashford. "Considerable numbers" (*ibid.* 546) of handaxes — at least 60 — had also been recovered from the eastern shore of Southampton Water at Hillhead, and a single handaxe had also been found from the gravel capping the cliff-top at Barton-on-Sea. By the end of the 19th century this early promise had been more than fulfilled. Evans (1897) emphasised, for instance, the "extensive collections" from Southampton (*ibid.* 624), the "considerable number" from Hillhead (*ibid.* 625) and the "astonishing number" from Barton-on-Sea (*ibid.* 637). In the most recent survey, Wymer (1999: 105) identifies the Solent region as containing more Palaeolithic sites than anywhere else in Britain, 169 of them in Bournemouth alone (Figure 1.3). In total, over 15,000 artefacts retaining sufficient provenance to be related to sites in the Solent region are known to exist in museums across the country, over 8,500 of them handaxes (Hosfield 1999: 23, Table 2.1).

Despite the wealth of material recovered up to *c.* the 1950s, and the proven richness of the Pleistocene

deposits across the Solent region, the contribution of the Solent region to subsequent Palaeolithic research is very much the dog that didn't bark in the night. Doughty (1978) notes, for instance, that hardly any palaeoliths have been recovered in Southampton since the 1920s, and despite occasional chance finds and monitoring exercises, such as at the prolific Dunbridge site (Harding 1998) — a can of worms best left unopened here, but see Chippindale (1989) — the number of major recent investigations into the Palaeolithic of the Solent region can be counted on the fingers of one leg, with the possible exception of ApSimon and Gamble's 1975 excavation at Red Barns, Portchester, right on the eastern margin of the region (Wenban-Smith *et al.* 2000), and the work of Draper (1951), and more recently, Hack (1999 & 2000) at Rainbow Bar off Hillhead, some of the material from which was displayed at this meeting. Why this curious situation has arisen is a matter for Holmes. What is important is to redress the balance, and hopefully this volume, and the day meeting from which it originated, will constitute a step in the right direction.

ARRANGEMENT OF PAPERS

The papers in the volume represent a full record of those presented at the meeting, and are reproduced here in the same order as given. The first three papers are predominantly concerned with the Pleistocene sequence and its dating. Dix provides a general introduction to the Pleistocene geology of the Solent region, looking in more detail than above at the onshore and offshore deposits of the region, their relationship with changing climate and fluctuating sea level, and introducing the possible complications of tectonic

movements. Bridgland explores the potential of the Palaeolithic archaeological record to provide chronological indicators for the geological deposits, and Bates looks to the overlap with the comparatively well-dated Sussex raised beach staircase for a route into dating the Solent deposits.

The next five papers are more overtly concerned with the interpretation of Palaeolithic archaeological evidence. Roe provides a general introduction to the range of Palaeolithic sites in the region, drawing attention to some observations made by him in the 1960s, not thought by him especially interesting at the time, but the significance of which seems to have increased in the light of subsequent developments in the subject. Wenban-Smith looks at a sample of material from one specific terrace in Southampton, with a view to investigating the constancy or otherwise of the technology and typology, and considering the wider potential implications of such observations. Loader reviews the current state of knowledge of the site at Priory Bay, on the Isle of Wight, and highlights the extraordinary quantity of material recovered from the beach over years, the threat to the site posed by cliff-collapse and the lack of knowledge of the nature and Palaeolithic archaeological significance of the imminently threatened deposits. Roaming beyond the strict bounds of the Solent River region, but remaining in the unsung southwest, Marshall examines the handaxe collection from Broom, in the Axe Valley on the Dorset–Devon border, with a particular eye on the use of Greensand Chert as a raw material and the effects of raw material quality and nodule size on artefact form. In contrast to these more site-specific studies, Hosfield reconsiders the potential of disturbed archaeological material to contribute to behavioural interpretation by developing improved modelling of the taphonomic history of such material, using as examples the sites of Wood Green and Dunbridge. He concludes that the loose spatial and chronological integrity of transported material from terraces in fact makes it particularly suitable for the investigation of changing landscape exploitation and hominid demography in relation to the climatic changes of the Pleistocene.

The final paper of the day, from Wilkinson, moved the focus to the curation of the Palaeolithic archaeological heritage, and the problem of predicting the most likely locations of undisturbed sites in advance of development. The solution proposed is to construct a regional three-dimensional model of the fine-grained sediments with which one might expect such sites to be associated, to be used as the basis for identifying areas of potential significance worthy of investigation in advance of any development projects.

Overall, the collection of papers represents a snapshot of current investigations into the Palaeolithic archaeology and Pleistocene geology of the Solent River region. The diversity and complementary nature

of this work, supplemented by the increasingly active concern with the curation of the resource, bodes well that the next 50 years of Palaeolithic research may put the Solent Basin more firmly on the Palaeolithic map, alongside classic areas such as the Thames Valley, East Anglia and the Sussex raised beaches.

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