I am a third year PhD research student within the archaeology department at the University of Manchester and my supervisor is Chantal Conneller. My research topic is a British Early Upper Palaeolithic industry, the Lincombian. The term was first used by John Campbell to describe material recovered from Kent’s Cavern, within Lincombe Hill, Torquay, Devon. It is characterised by leaf shaped points, possibly missile heads, produced using a blade technology and generally termed blade points (Jacobi 2007). Most blade points were recovered during the nineteenth and early twentieth century, and now languish within mixed museum collections with very little in the way of contextual information.

I have used the 2012 John Wymer Bursary, in conjunction with a research grant from the University of Manchester, to direct the experimental knapper, Karl Lee to produce a series of blade points, and through this process recognise and record associated collections. My aim is to assess the mixed museum collections in relation to the experimentally produced debitage materials as a possible strategy for relating stage of production to landscape location. Essentially, my aim has been to create an experimental context with which to understand better the de-contextualised materials within mixed museum collections.

The experimental production covered five days this summer, and I am currently analysing and quantifying the results. However, most interesting at this stage and for this short report is a summary of how working with an experimental knapper has disrupted my own preconceptions and understanding of the technological process. Equally important it has also provided an insight into some of the issues that need to be considered when a modern knapper reproduces a Palaeolithic hunter gatherer technology. The resulting dialogue between myself as ‘subject specialist’ and knapper, Karl Lee as ‘production specialist’ has resulted in some new and unexpected research questions and observations. Whilst perhaps de-railing my original plan and timetable, I believe that the process of working through my own technological understanding, derived from literature reviews and museum collection analysis, with a practitioner who actualises this conceptual process, has refined the practice in unexpected ways. The research questions that have emerged can, I believe, be answered through analysis of my own technological, typological and metrical data derived from the original museum collections. It has also given me an insight into some issues associated with the reproduction of Palaeolithic technologies within the present. I will discuss three of these points here.

**Opposed platform production.**

From both literature reviews (Jacobi 2007; Flas 2008) and museum collection analysis (e.g. Beedings) it is apparent that blade points were produced from opposed platform cores. As well as such cores being present within the above collection, the opposed direction of flake scars on the dorsal surface of many blade points support this argument. The rationale for opposed platform production has been argued to be aimed at generating blades with a straight profile, producing strength within the longitudinal plane and thus ideal for missile heads (Jacobi 2007; Flas 2008). As an experimental practitioner Karl Lee, however, had a differing approach and rationale to the subject of opposed platform cores. From the knapper’s perspective it took time to prepare a platform, and once prepared it made sense to exploit it fully. For him the main problem wasn’t to remove relatively straight blades, but how to correct the core when a blade removal produced a step or hinge fracture at its base. It

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was at this point that the core was inverted and a second platform produced to remove the problem. The experimentally produced blade points are indeed relatively straight, and some compare very well with the museum models. However, I am now particularly interested in the dorsal scar pattern of the museum pieces. My working hypothesis is that the percentage dorsal scar direction tendency would presumably be closer to 50/50 should the core be systematically inverted to maintain straightness. The experimentally produced blade points show a tendency towards unidirectional removals as a result of the second platform being used primarily to correct the core.

**Hard hammer, soft hammer, or soft stone hammer?**

Damien Flas (2008) has argued that based upon the width of the platforms and presence of lips, that blades were removed using a soft organic hammer. When Karl Lee briefly reviewed the important collection of Beedings he was struck by the intensive invasive retouch on the bulbar end of the ventral surface of the complete blade points. He interpreted this as evidence of removal of a fairly large bulb of percussion, and as such indicative of hard hammer use. Consequently Karl produced blades and blade points using both hard and soft hammers. Removal of the bulb from blades produced using a hard hammer proved difficult to achieve fully and also created the likelihood of end-shock. Both these factors support the idea of soft hammer production. However, as the paper by Pelegrin (2000) highlights, and Damien Flas has more recently suggested, we may be seeing platforms and bulbs produced by soft stone hammer. I now have hard and soft hammer experimental removals to contrast with the museum artefacts in order to better understand this issue.

‘Performance’ within modern knapping.

One of the issues that took a while to resolve was at which stage blade production should logically take place. Whilst I was interested in core production and associated debitage Karl tended to shift from core shaping to blade point production. This disrupted the debitage signature I was attempting to capture. Through discussion we realised that I was approaching the issue from the assumption of mobility, whilst Karl was working from the perspective of resource efficiency. We resolved the issue by producing blade points both ways. A superficial review suggests that early stage blade points are thicker and longer than the museum pieces.

However, having reflected upon the experience I think there is another underlying factor that relates to Karl’s role of a modern knapper. Knapping today has primarily an educational role, and a key component of the knapper’s toolkit is the ability to engage with an audience, be it academic researcher, museum visitor or bush-craft enthusiast. A key skill here is linking the production process with an explanatory dialogue, and importantly producing an end product provides conclusion to the dialogue, a happy ending. Producing blade points from early stage removals allowed results to be achieved earlier, and fitted well with how I have observed Karl work within a demonstration context. Working experimentally through the technological process fitted less well with this performative aspect, and the fact that I was filming throughout may not have helped.

It seems obvious that the social and ‘economic’ context of a modern knapper and Palaeolithic hunter gatherer are very different. Observation, discussion and reflection have helped me to understand the particularities of a modern knapper’s ‘economic’ context and the import of engagement and performance within it. Through dialogue over a number of days we made a shift from a performance and type product emphasis, to more of a technological exploration with less emphasis on outcome. I believe elucidating this issue has been useful to me as a researcher, and to Karl as a practitioner.

Whilst the main aim of applying for the John Wymer Bursary was the experimental production of a contextual debitage collection, as illustrated above, the production process itself seems to be rich in opportunities for new questions and insights. That these questions...
have disrupted my understanding and derailed my original plan and timetable is informative to me, as I am beginning to observe how it is in fact through this process of engagement and derailment that the exploration has entered unexpected territories. This dialogue has been useful as well in recognising implications such as performance that may need to be taken into consideration when structuring experimentally (as opposed to typologically) orientated projects. For anyone with a further interest I have uploaded a 17 minute film to vimeo.com discussing these issues in a little more detail:

https://vimeo.com/50690712

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REFERENCES
