as the commentaries elaborate, caution is in order on both fronts. Even if most sociologists really do not look much, those of Elizabethan wiles are of a different sort. And archaeologists do ask a lot of questions about social and cultural context, at least when on more familiar product turf. More ambitiously perhaps than envisioned by the experimenters, the next steps are to fuse the skills and propensities to further elaborate how materiality operates *in situ* and how objects can teach about society.

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Artefacts between disciplines. Response to responses

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As is often the way, a 'finished' article disguises aspects of its own production and gives an overly orderly account of theoretical and methodological moves which were not especially planned. In responding to our commentators and in coming clean about our own working methods we have some confessions to make. In making these admissions we[1] continue what has by now become a conversation about matters of interdisciplinarity and about our approach to the axe and the toothbrush.

The axe–toothbrush story developed from a casual exchange between two strangers at a conference dinner table – the conference, Connected Space, was designed to promote 'interdisciplinarity' but not in any especially organized way. That an article emerged from this accidental encounter is itself a sign of the serendipity of academic life and of the common and distinctive histories and traditions on which we draw. Despite being strangers, we both belonged to an academic community defined by common practices like going to conferences, writing articles and responding to comments. In recognizing this point, we also recognize that it is only because we are the academic equivalent of Eskimos that we are willing and able to make distinctions between the many different kinds of paradigmatic, theoretical and methodological snow. Without shared points of reference and a relatively common language it would have been impossible to proceed, or to develop a method of elaborating on our differences.

This is not in itself news, so what were we really trying to do in relation to existing debates and literature on the disciplinary structure of academic enquiry? The honest answer is, not much. Despite some of the rather grand claims we make in the opening section of our article (confession no. 1: consistent with the conventions of academic writing, we use references to 'interdisciplinarity' to contextualize, and perhaps overplay, the significance of our work), our 'real' point of entry, and in a way our real focus, was to take seriously Hanson's (1981) argument that observation is theory-laden. With this in view, we wanted to reverse-engineer our different accounts of things in order to 'see' the tacit framing and theoretical loading of research in

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which we routinely engage. In other words, we wanted to focus on matters of methodology.

Although it is true that Elizabeth identifies herself as a sociologist, and Duncan as an archaeologist, we did not intend to write about disciplines as such. We tried hard to avoid the traps of taking ourselves to be representative of, or overstating the homogeneity of, either discipline. Yet there is a sense in which the interest of the problem (what are the tacit framings that we use?) does have to do with delineating discipline-based differences of orientation. Now prompted to say more, we would acknowledge the institutional politics of our 'home' disciplines, their 'rural' character and their historical and cultural ancestry. But in venturing into this territory, it is Abbott (2001) rather than Becher and Trowler (2001) that we take as our guide. For Abbott, and for us, disciplinary distinctions are outcomes of political and institutional jockeying around matters of method and epistemology. This sometimes favours the emergence of hybrid forms like social history, women's studies or material-culture studies, sometimes it does not.

In Abbott's account, branches of different disciplines often overlap with the result that, in his example, certain sociologists have more in common with historians than they do with other members of their 'own' discipline. Whether social history then develops as a discrete 'discipline' in its own right (or not) has to do with an assortment of generational and institutional features (e.g. the availability of jobs, the 'market' for ideas and so forth). To return to our own case, the 'edge' between forms of materially oriented sociology and sociologically oriented archaeology is evidently blurred – it was, for instance, genuinely surprising to discover how many of the same books and articles we had read – but if our experience is anything to go by, there are also real and relevant differences of craft and method. These are undoubtedly sustained and reproduced by social institutions (most obviously those of disciplinary training) but one of our central claims is that just as things configure those who use them, so materiality configures lines of enquiry. On this point, it is important to be clear: this is not at all the same as saying that things have some kind of purity or that in concentrating on 'materiality as such' we set aside what we know. We only 'know' materiality through paradigm and theory-laden lines of enquiry, yet it is also the case that stuff still matters.

In this context it is intriguing to reflect on the status and future of 'material-culture studies'. Is this a new discipline in the making or is it better seen as a kind of boundary space in which established agendas and methods come into contention, leak and sometimes intersect? More normatively, should there be some deliberate effort to invest the time and long-term energy apparently required to arrive at 'genuine' interdisciplinary fusion, as Carl Knappett suggests? We do not go along with those who want more interdisciplinarity for its own sake, or who advocate it as a self-evident good, like motherhood or apple pie. Instead we argue that disciplines are necessary organizing frames without which we are blind. We also argue that proponents of interdisciplinarity frequently overlook the similarly basic point that problem-definitions are themselves paradigm- and theory-laden. The idea of somehow joining together to address a 'common problem' or to arrive at a 'closer description' (see the comment by Hans Peter Hahn) routinely disguises

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the prior question of the terms in which seemingly shared agendas are in fact defined (Shove and Wouters 2006).

In this spirit we used the axe and the toothbrush as mirrors with which to reflect and catch sight of our own (valued) paradigms and agendas.

Analysing things: accidents of enquiry

Given the weight that our commentators and to a lesser extent we ourselves place on the characteristics of the axe and the toothbrush, we should say a bit more about our 'sampling' strategy. It is time for further confessions. For Elizabeth, it was touch and go. What would she put in the envelope? Would it be a toothbrush or an orange plastic frog from a Christmas cracker? Both were easy to post and both were close to hand. We each gave thought to what to send, but those thoughts were ordered by what was only a vague sense of the kind of discussion that might ensue (remember, we really were strangers) and by other essentially pragmatic considerations. At this point we had no clear intentions like those of writing about the finished and the unfinished, or about craft and mass production, progress, or differences between things, works and stuff. Looking back, this ad hoc approach raises an interesting question: would our article or the comments on it have been different had Elizabeth sent the frog, or had Duncan handed over a potsherd rather than an axe?

It is true (though beware the risk of homogenizing disciplines and categories of material culture) that archaeology could have something to say, generically, about toothbrushes and that sociology could speak about axes, but for us that definitely was not the issue. In so far as we were using the axe and the toothbrush not as inherently revealing, interesting or important objects in their own right, but as tools of enquiry, we hold to the view that many other things would have served the purpose of our article just as well.

The office location of our 'experiment' and the reactions this generated about matter out of place and about stripping things from context forces another confession. We have more to say about 'isolating' objects, but why the office, why did that setting matter and did it matter differently for the axe and for the brush? The truth is revealingly but disappointingly thoughtless. The office was simply the place in which the axe was dumped and where it has since remained, ditto the toothbrush.

In so far as we had one at all, the plan was not to explore matter out of place, or to study responses to it, but 'simply' to describe and write about these objects – in the full knowledge that there was no such thing as 'simple' description. This brings us to questions of isolation and quarantine. We picked on things with the right 'affordances' – they needed to be handed over or sent in the mail. It was for this reason that Duncan was sent a toothbrush and not an entire bathroom, complete with inhabitants. We want to make a number of slightly but not entirely incompatible points about this feature of our work.

First, a focus on stranded artefacts does not necessarily mean that our analysis is also denuded or stripped bare. There is, for instance, a long tradition in science and technology studies of investigating things (the bicycle, the electric light bulb . . .) in order to understand the social and cultural worlds that make them possible and in which they have meaning and effect (Bijker

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1995). Similarly, as Duncan points out in the paper, archaeologists often do work with, and have to make something of, 'stray finds'. Consistent with our remarkably common interests and orientations we too spent time connecting our objects to various social processes, real or imagined. In that sense we resist the charge of isolationism, of analytically ignoring relations between things or of disregarding the dynamics of practice and practical usage.

Our second comment has to do with material abstraction. In pulling stuff like the toothbrush out of the flow and parking it in an office not on a bathroom shelf, or in positioning the stone as a paperweight and not an axe, are we ripping it from some true and authentic setting to which we are consequently denied access?[2] Perhaps our 'experiment' is better viewed as one which, by means of association and intervention, gave these things 'new life', for instance, as history, as surreal joke or ironic provocation? From this slightly pedantic query we take the more important observation that objects have no one identity, but an identity that is moving all the time. It is definitely true that we are having fun – social science fluxus is an inspiring model – but we are not at all melancholy because we do not believe in the possibility of a 'complete' understanding or that things will ever be other than mute.

We are not after one 'better' understanding of material culture but still we think that things matter. More generally, we share the view that the things we study are mute but not immaterial: features like those of scale, weight and age are of real methodological consequence (again, see Strathern 1991). For example, we cannot send a bathroom in the post any more than we can now observe the practices involved in making what was, in the end, not an axe. Equally, while the toothbrush could be in use in Duncan's bathroom today, the axe, even if complete and finished, would have no comparably obvious place in the routine reproduction of Elizabeth's everyday life. Methodologically, questions of access are important especially since traces of material culture 'afford', complicate and sometimes flatly deny certain lines of enquiry. In having our cake and eating it too, we suggest that (a) understandings of material culture are unavoidably paradigm-bound, and that (b) stuff structures (but does not determine) the kinds of enquiry that can be undertaken and the kinds of question that can be asked of it.

When we first met at the conference dinner, we wondered about what an exchange of material artefacts (rather than paragraphs, references and texts) might reveal about familiar but usually invisible agendas, habits and practices of enquiry. Since our commentators were invited to discuss the article, this is what they have done. We end our response thinking about what questions might have arisen, and what methodological changes might have been made, had they been involved in the toothbrush or the axe exchange – either alone or in combination with our text.

Paul Graves-Brown might have preferred it if we had sent a hafted axe and a bag of PVC pellets, making the unfamiliarity and familiarity of our respective objects less extreme. However, we are not sure if, in itself, this would have produced a substantially different account. Hans Peter Hahn might have tried to do more (but exactly what more?) to put practical usages at the centre of his enquiry: supposing that a brush is for cleaning teeth and an axe is for chopping trees. Carl Knappett may have wanted to view the toothbrush in

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the context of its use, perhaps in circumstances similar to those of Buchli and Lucas's 'excavation' of a modern council house (Buchli and Lucas 2001). Similarly, he might have preferred Elizabeth to have dug up the axe, perhaps within a Neolithic enclosure or amongst other stoneworking debris in the Langdale quarry itself. However, in providing this extra context, the 'coping' may well have been too 'smooth' (to borrow his phrase). We were glad that our 'experiment' introduced a bit of roughness, its abrasive qualities bringing the normally un-'felt' of routine methodology into the realm of discursive consciousness. Harvey Molotch might have wished for a more symmetrical arrangement in which the toothbrush was, for instance, mounted on a plinth in a display case. This would almost certainly have elicited more responses from visitors to Duncan's room (if it did not, one would worry), but would this really have produced a paper which was all that different? Perhaps not.

The swapping of toothbrush and axe was viewed from the very beginning as a starting point. The objects began our own dialogue (at the time, we were not sure where to begin), and that dialogue has begun an exchange now involving four more people. While we stop short of imagining this exercise as some kind of academic pyramid investment scheme, it is encouraging to know that all four commentators viewed our experiment as a worthwhile beginning from which other things might develop. As we said in our paper, it really would be interesting to see what happened if sociology had been replaced by geography, or if geology had stood in place of archaeology, and what new points would have emerged had we included a historian and an anthropologist in our discussion. So, Paul, Hans, Carl and Harvey (and perhaps others?), do not be too surprised if a toothbrush- or axe-shaped parcel appears in the post in the coming months. The dialogue really has only just begun . . .

Notes

[1] In this response, we take joint responsibility for 'our' article and therefore write as 'we'.

[2] What is the unquarantined environment that is implied by Knappett's discussion? Archaeology, by definition, works with objects which have been transferred to a different world.

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