'Object interviews, material imaginings and 'unsettling' methods: interdisciplinary approaches to understanding materials and material culture'

Sophie Woodward, University of Manchester.

This article aims to explore the possibilities and limitations of contemporary qualitative methods for understanding materials and material culture and how these can be expanded through interdisciplinary approaches. Taking the case study of an interdisciplinary project into old jeans, the article firstly considers the use of object interviews and life histories to explore how people 'speak' the material. Secondly, it develops the possibilities afforded by inventive material methods, such as socioarchaeological approaches of 'material imaginings'. Finally, the article discusses the interdisciplinary methods of design and of textile technology through the dialogues that took place around the methods and data. Focusing upon dialogues offers a means of exploring the tensions and also connections between methods as a site for expanding qualitative understandings of materials as 'live' and vibrant. It aims to widen the remit of qualitative research methods to incorporate the material.

Keywords

Mixed-methods, interdisciplinary, material culture, materials, object interviews, clothing.

Introduction

In the wake of the 'material turn', the proliferation of research into material culture attests to the centrality of materials and materiality in the constitution of social relations

(Latour, 1993, Miller, 1987). The material properties of things are central to understanding the sensual, tactile, material and embodied ways in which social lives are lived and experienced. Research from diverse theoretical perspectives acknowledges both the vitality of materials (Ingold, 2007, Bennett, 2010) and also the importance of things in framing everyday experiences (Miller, 1987). These approaches raise important epistemological and methodological questions about how social scientists might go about researching the non-verbal, the tacit, and the material properties of things. The development of visual and sensory methodologies (such as Daniels 2010, Pink, 2009), ethnographic methodologies (Author, 2007) and object interviews (Woodward, 2001) highlight the need to continue to widen the remit of social science methods beyond the elicitation of verbal accounts in order to understand the complexities of material worlds. Yet there has been very little methodological engagement with how qualitative methods might help us to understand *materials* and their properties, even as social scientists (such as Ingold, 2007) now argue for their centrality in the reproduction and breaking of social and material relations.

Due to historical disciplinary divisions between the social and natural sciences, materials have been designated as the methodological and empirical domains of the natural sciences and culture and social relations as the domains of the social sciences (Hodder, 1998, Law, 2004). This disciplinary divide creates and perpetuates the problematic ontological dualism of nature/culture and materials/culture. This division is also methodological, and this article explores how social scientists can develop

qualitatively orientated methods for understanding materials and material culture, which in turn may help to disrupt these methodological and ontological dualities. This article reflects upon an interdisciplinary project into old denim jeans. The project has four methodological strands; firstly, it starts with sociological life history interviews and object interviews about old jeans that people are throwing out. Secondly, a workshop discussion around different methods involves the workshop participants engaging in a new method of *material imagining*. Thirdly, the jeans are subject to textile technology tests (for fabric strength and surface abrasion) and finally, they are remade into a 'new' garment by a designer. The focus is the 'life-history' of the jeans as each method pays heed to, and enacts, material and social transformations of the jeans over their life-course.

An interdisciplinary approach is adopted in order to understand people's relationship to their jeans, which is a tactile relationship of bodies, skin and fabric. Changes in both the garment and the fibres enact relations between people and encode memories, as the material and the social are entangled and co-constituted. Mixed-methods approaches help to promote understanding of the multi-dimensionality of the world as simultaneously visual, sensual, material and intangible (Mason, 2006). This interdisciplinary approach also offers a means of reflecting upon the possibilities and limitations of disciplinary specific methods (Barry and Born, 2013). I currently work in a sociology department and, as such, sociology is the lens through which I am considering different methodological approaches. However, I started my academic

career as an anthropologist, and have worked in art and design schools; this trajectory through different disciplines has highlighted the possibilities offered by using the methods of different disciplines both to expand the methodological repertoires of sociology, and also to reflect upon its methodological assumptions. Law's (2004) suggestion that sets of methods make certain ideas and possibilities 'present' opens up conventional qualitative methods to an interrogation of how they may 'absent' material properties.

This paper focuses in particular upon the *dialogue between* methods as it dialogue that exposes and unsettles the assumptions of these methods. This approach is extended to the data analysis stage, as this paper explores the links and 'creative tension' (Mason, 2006: 20) between different methods (Hurdley and Dicks, 2011) and data forms. This marks a departure from attempts to integrate or triangulate data. This dialogue has been an implicit part of the research project from its inception, as methods have been explained to participants from different disciplines, as well as being an explicit part of how it has been framed through a workshop event. These discussions are important in mediating different agendas and disciplinary expectations of researchers. Informal dialogues often do not make it into journal articles, but this article suggests that they are a productive site for reflecting upon points of connection and distance between methods. By focusing upon these interdisciplinary dialogues this article aims firstly to contribute to current research using mixed methods or interdisciplinary methods, by highlighting the importance of dialogue as a way to

'unsettle' methods rather than resolve them. Secondly, it aims to develop research in the fields of materials and material culture by focusing explicitly upon methods for understanding the material. Finally, the article aims to contribute more widely to debates within the social sciences over developing more creative and 'live' methods by focusing upon how we can use the material to develop more creative methodological repertoires.

Understanding material culture: ethnography and object interviews

This article works from the understanding that things are not just passive and inert but have agency as they are able to bring about effects (see Gell, 1998). Through their material capacities things are co-constitutive of social and material relations. Whether theorised as 'actants' within the framework of actor network theory (Latour, 1993), or as the 'affordances' of things in design literature (Gibson, 1977), we need to take seriously the properties of things. The entanglements of people, materials, things and environments is well acknowledged theoretically, and indeed epistemologically, but less consideration has been given to how effectively current social science methods are equipped for exploring these issues. In part, this arises from disciplinary separations as 'materials' have been positioned hitherto within the natural sciences. In this section I consider approaches that have been taken within the social sciences to explore the material, before moving on to consider different disciplinary approaches in the next section.

The ethnographic method of participant-observation has been one of the main approaches in anthropological studies of material culture which have explored how things 'frame' everyday life (following from Miller, 1987). Within sociological research, ethnography has come to be used widely within the field of science and technology studies (Latour and Woolgar, 1979) to interrogate scientific knowledge production practices as well as the entanglements of people and things. Although often not explicitly categorised as 'mixed-methods', ethnographic approaches offer a repertoire of different methods for understanding the material. The observations of what people do with things that is at the heart of the ethnographic methodology has been developed specifically through visual methods such as photography (see Daniels, 2010) or the use of video capture to explore material practices as interactive and embodied (Dant, 2010, Hockey et al, 2013). Visual methods have not just sought to capture material practices but also to *provoke* responses (usually verbal) from participants. Photo elicitation techniques have been widely used in qualitative interview studies (Harper, 2002) and have been adapted to explore facets of the material (Rowsell, 2011).

Object elicitation methods have been adopted in many anthropological and sociological studies accounts as a route into people's narratives and memories (Hoskins, 1998). Woodward's exploration (Woodward, 2001) of how people provide a narrative context for objects highlights the need to interrogate the relationships between what people say and what they do with things. How people talk about things is a way to create and extend meaningful relationships towards things, as language can then 'define' and

'recast' material culture (Shankar, 2006: 297). Whilst words may not be enough in themselves to allow us to understand material practices they are still part of how people articulate their relationship to things. Given how many social science methods centre upon people's verbal accounts, it is important to think critically about what these accounts allow us to understand about material practices. This article focuses in particular upon the ways in which words can evoke the materiality of things.

'Cultural probes' (Gaver et al, 2004) are a method that perhaps most explicitly attempt to provoke responses in participants; originating in design studies, the method entails participants being given a set of objects to 'live' with – such as a camera, map or specially designed object, which people respond to in different ways. These possibilities have been taken up in sociological research as a way to shift our methods from things being an 'object' of study to also being part of the empirical 'process of engagement' (Michael, 2012: 167). Using things in this ways allows us to understand their vitality and capacity to provoke as well as opening up new disciplinary encounters.

Understanding materials: materials science and live material methods

In contrast, the methods of materials science have centred upon materials and their properties rather than the stories that people tell about them; materials scientists usually specialise in a particular class of materials, such as textiles, and aim to develop an 'objective' account of material properties such as colour, elasticity, shape and

texture (Kingery, 1996). A focus upon materials and their properties can be found in archaeological methods, yet as a route into exploring social relations. Often with no living participants or written records, archaeologists have to interpret the spatial relations and the layering of things either through surface survey or excavation (see Harrison, 2011). There is a wide range of approaches to archaeological methodology – ranging from the scientific analysis of rock formations through to ethno-archaeological explorations of what people might have done with things in particular contexts. Yet, taken together they highlight the possibilities for thinking with and through the material as a means to understand cultural practices.

Social scientific approaches to materials take issue with assumptions of scientific research that materials are objective; for example, Klepp and Hebrook's (2014) mixed methods project on wool and its properties of 'itchiness' dovetails with Ingold's assertion that material properties are not objective but 'practically experienced' (Ingold 2007: 13) and perceived. When we understand materials through the dynamic practices and contexts of use, different qualities of things are suppressed or realised depending upon specific interactions or contexts (Keane, 2005: 191). This raises the importance of developing methods to think through the entangled relationship between people, materials and things.

Materials and things are vibrant, a vibrancy that comes from the materials themselves (Ingold, 2007) as well as the lives of things and their shifting meanings, as a pair of

jeans wears down, falls apart and is discarded and recycled. To understand this material vibrancy, we need to develop 'live methods' (Back and Puwar, 2012). Whilst there is much to be learnt from the insights of materials science, when conducting material analysis we must not render materials lifeless. This project focuses upon the 'life histories' of jeans as a way to understand the multiple vitalities of jeans, as they materialise personal biographies and bodily practices. The methods explored in this article do not just try to *capture* material change, but also *provoke* it, as methods themselves are material and through this bring about effects (Lury and Wakeford, 2012). Object interviews can provoke responses in people; textile tests and design methods also provoke material changes in the jeans themselves.

Interdisciplinarity and multiple methods

Mixed methods research is often characterised as a combination of qualitative and quantitative methods, which reinforces binary methodological divisions instead of seeing methods as a set of tools for exploring the multidimensionality of social worlds (Mason, 2006). Our relationship to clothing entails the touch of bodies and materials, the properties of materials and the design of garments. The capacities of materials to make a garment soft are also those which materialise our memories of other people in a complex web of relationalities and subjectivities. Using multiple methods is one way to understand the heterogeneity (Law, 2004) of entangled material and social worlds and also to pave the way for thinking creatively about possible sociological methods. Adopting an interdisciplinary approach encourages reflexivity, as accepted ways of

doing research are laid bare when faced with alternative knowledge practices. All the researchers in this jeans project have 'home' disciplines, but through the discussions that took place are able to reflect upon and advance discipline specific methods. This article includes my reflections upon sociological methods. Law has suggested that 'method assemblages' (Law, 2004) are a set of practices that make certain knowledges present and others absent. The implication of this here is that if we only have methods that allow for verbal articulations of things, things which cannot be verbalised will be 'absented'. Discussing the use of different disciplines' methods allows us to be reflexive around what specific method assemblages make 'absent'.

Thinking about interdisciplinary projects as a process of unsettling discipline specific 'method assemblages' (Law, 2004) has implications for how we approach data. The intention is not to triangulate the data to produce an integrated picture of 'the material', but rather to hold methods in 'creative tension' (Mason, 2006: 9). Tensions and contradictions between methods and forms of data can be explored through discussions of the interdisciplinary team. In this project, these discussions were themselves a useful route into making visible the assumptions of specific methods, and in unsettling these methods, allowing us to enhance the ways in which we understand materials.

Exploring the life histories of old jeans.

In order to bring together disparate disciplines and methods, the project needed a 'bridging' concept (Shove et al, 2007) as a point of connection between different disciplines and their methods. The life history and transformations of old jeans has been selected as a focus as it foregrounds the 'live-ness' of materials, things and also of methods. Life history interviewing is a sociological method employed in the study, but as this method implies transformations, it could be approached textile technology and design methods which both provide ways to understand and enact material change.

The first phase of the research has entailed carrying out a life history interview through jeans and an object interview with jeans that participants were about to throw out. A total of 8 people have been interviewed for this stage of the research; this number has been selected as the emphasis is upon methods that allowed an in-depth understanding of how people's life histories are materialized in their old jeans. In order to explore changing biographies through clothing, all participants were over the age of 40, as by this age participants had been through different life-stages. All participants within the study are between the ages of 40-50, female, and living in the same area of Manchester. Selecting a relatively homogeneous group has allowed greater understanding of how certain methods might elicit particular types of response. Participants have been recruited through personal and online community networks. Once two initial participants volunteered, the final 6 have been accessed through snowball sampling. Interviews have taken place in people's homes, and once

participants have read the participant information sheet, they were given a chance to ask questions and sign the consent form. We have had a post-interview 'debrief' which allowed us to reflect upon the process.

The data produced includes audio recordings of the interviews, transcriptions, photographs of the jeans and field-notes which discuss how participants interacted with the jeans during the object interviews. The analytical strategy involved comparing the responses elicited from the life history interviews and the object interviews, as well as thematic analysis across all of the interviews. The themes emerged from immersion in the data and included life changes, material changes and use of material descriptions; analysis has always remained attuned to participants' responses in relationship to the questions they were responding to. For the object interviews, interview transcripts were considered in relationship to the pair of jeans, to allow an understanding of the relationship between words used and the jeans themselves.

The second phase of the research, the interdisciplinary workshop, has involved different collaborators presenting their methods, as well as workshop participants interpreting the old jeans that were being thrown out. The event participants included invited academics from design, social science and materials science disciplines as well as people involved in the industry of textile recycling. The third phase has involved textile tests to explore the constitution of the different jeans (such as weave structure, colour fastness) and the tensile strength of the denim. The machine tests produce

quantitative data, which has been presented in a tabular format to allow comparison between the jeans across a range of parameters such as abrasion. The final phase has been carried out by a designer who has made 'new' garments from the old jeans, having read the transcripts of the interviews. I have carried out an interview with the designer after she had made the garments. Although presented here as 4 separate stages and methods, as each stage included discussions - whether in the organized form of a workshop or through informal discussions - this article will present the methods in relationship to each other, exploring both the connections and differences.

When planning the project I had not anticipated that informal dialogues would be used as 'data' when writing up of the research. However, as I reflected on the process, I started to see them as an important resource in thinking through the relationships between different methods. Both the designer and textile technologist have consented to me using these informal dialogues after they took place. Both have seen the draft of this article to see how discussions were used. As Tracy and Carmichael (2010) note, ethical 'approval' or 'clearance' could be more productively thought of as initiating a dialogue around ethics, which is particularly pertinent for this project and interdisciplinary projects more widely, as ethical practices need to be discussed and revisited throughout a project.

i. Life history interviews and Object interviews

I will firstly consider the relationship between the life-history interviews and the object interviews which have both been carried out by me with each participant, as a starting point into thinking about how people talk about, and interact with their jeans. Holly, a woman who is now nearly 50 living with her grown up son, is in many ways typical of other interviewee's. When asked for particular memories of jeans, she struggles to remember or have anything to say concretely about specific pairs of jeans, but is more fluent in recounting styles of jeans that she wore in particular periods of her life. When she tells me about a pair she bought a couple of years ago, she struggles to describe them

Er, they are, they are like a sort of quite a pale - erm, they are erm, what kind of colour, like a erm - a bit like a sort of bluebell-y type of colour, yeah sort of pale, erm ...So one of the classic colours I suppose of denim...

Frustrated by the inability to describe them, she fetches the jeans from a pile of clean washing to show me. Like other participants, she lacks the vocabulary to talk about, and is also unable to recall, the material details of clothing.

Throughout the life-history interview she pauses often as she struggles to remember particular jeans or when she wore them. Material memories are relatively sparse in the interview, apart from when she talks about her negative associations of jeans as "quite constrained...and difficult...heavy...lots of features and seams and bulky pockets". Detailed memories of the jeans often relate to the embodied and material unpleasantness of wearing jeans or clothing disasters, as exemplified in another

interviewee who at first she hated the "annoying-ness of the wrinkle lines at the top of your leg when you sat down and having to always try and pull them out cos they were uncomfortable when they dug into your skin". Another interviewee related a memory of, after she had put weight on, wearing 'this pair of jeans that was so tight. And my boyfriend came and picked me up on his motor bike... My jeans were so tight that they cut the circulation off in my legs and I was crying when I got home'. It is often clothing disasters (see also Author, 2007) like this where people have the most vivid memories, rather than the routine material relationships women have to much of their clothing, which is harder to verbalise.

When I carry out the object-based interview on the pair of jeans that Holly is throwing out, a much more detailed account and discussion are forthcoming. She looks at and touches them when she tells me she likes the "colour of the denim" the "shape" and the "pockets...really like their shape"; "they fitted nicely...I prefer them to be big rather than over-tight", like the "texture and feel of the denim". All the while, both Holly and I are engaging visually and sensually with the jeans; when she mentions a specific detail she strokes and handles the jeans, which I do in turn to 'feel' what she is talking about. When I ask her about how the jeans have changed, she talks about how they

used to be dark, the same colour all over. Now they are frayed at the bottom, a bit bleached out er, and the denim's... it's sort of become more lined. There's

quite a change in them. The colour now is a lot more reddy down here, they were more a greeny blue.

The jeans are worn down at the bottom and on the knees and frayed where they touch the floor.

Within the initial life history interview she seems to struggle to think about concrete pairs of jeans; jeans form a backdrop to her life rather than a 'special' type of clothing. In the object interview, looking at and touching the jeans allows the material and particular memories to emerge. She talks in ways that evoke the materiality of the jeans; the material changes she talks through, are ones I can also see: they have faded, softened, frayed and marked. Had she tried the jeans on this would have allowed her to engage with the physicality of her memory through what it felt like to wear them. Although as her body shape has changed, the physical relationship to the worn garment would be different. Doing object interviews allows an understanding of how things materially evoke the sensory experiences of wearing. Through what people say as they look at and touch the jeans, people are still able to use language to articulate facets of the material. Akin to Mason and Davies' (2009) suggestion that researchers need to tune in to language people use to articulate sensory experiences, so too we need to attune ourselves to how language can articulate people's experiences of the material.

<u>ii. Dialogue – imaginative and unsettling interpretations</u>

Object and life-history interviews could be directly compared as they were carried out with the same participant and interviewer and are both types of interview. For the other methods used in the project, focusing upon the dialogues between them opens up connections and discrepancies between methods. Before considering these commonalities and contrasts, in this section I will explore the productive possibilities offered by these dialogues. The interdisciplinary workshop included presentations and discussions on the findings from the interview material, the methods to be used by textile technologists on the old jeans, and the possibilities of design as a method. It had been anticipated that the textile technologists would be presenting the findings from their analysis, but due to other work commitments this has not been possible. In the final part of the workshop, the jeans upon which the object interviews have been based are given to workshop participants to discuss. Participants (25 in total) come from a variety of backgrounds: social science disciplines, design, materials science, and those working in the recycling industry. The intended outcome of the discussion was to produce suggestions for what type of garment the old jeans could be made into. However, the most interesting outcome has been how participants start to imagine the wearer of the jeans by interpreting the material traces of the jeans (see Hauser, 2004). For example, one group of workshop participants concludes that the wearer must be right-handed as the right knee has been worn down, and there is more paint and ingrained dirt on the right hand side of the jeans. In another example, workshop

participants develop their interpretations from a lack of marks on the jeans, as a pair of jeans in perfect condition is surmised to have not fitted the wearer.

Even though I have already carried out interviews and started to think about the findings, these discussions open up different ways of looking at the jeans. The object interviews are framed through how the wearers themselves understand their own jeans and experiences of wearing them, which in turn framed how I interpret them. The workshop participants develop more imaginative possibilities of thinking about things, akin to archaeological methodologies (Harrison, 2011). Some of the suggestions clearly deviate from what I have found in the interviews, such as one group concluding that jeans that had worn down on the inner thigh had been worn by a keen cyclist, when the interviews had shown that instead the size of her thighs meant that this was where the jeans wore down. What matters here is not what 'really' happened, but instead, the productive possibilities of thinking about things in terms of 'what might have been' and 'what they might have done'. This discussion unsettles the pre-existing narratives and interpretations of the jeans as I have been forced to engage with the material in different ways.

iii. Informal dialogues

The informal discussions that have taken place around the textile tests between myself and the textile technologist, Jane Wood, were important both in helping me to understand the data but also to allow us to develop shared interpretations. There were

clear differences in language used as I discuss how the fabric 'feels' and if it 'fades', and she its 'handle' or its 'fastness'. The methods of textile technology aim to understand the 'objective' properties of denim, which is perpetuated by industry standards, where fabrics are deemed successful in relationship to benchmarks which relate to how well a fabric performs (such as how fast it loses its colour). However, as Jane Wood highlights, the 'objective' standards that denim 'fails' at - such as that indigo is a poor dye - are the same qualities that consumers value about jeans, as it is indigo's poor dyeing that in part causes jeans to 'age', as the white undyed cotton fibres emerge through wear.

As the textile technologist explains the tests carried out to explore the constitution of denim, she stretches the fabric of the denim samples whilst talking about tensile strength and she rubs and touches it when talking about how tightly woven the denim is. Many of the initial tests done involve manual processes such as separating out the yarns for their length to be measured. Even tests that are carried out by machines in laboratories have as their starting point an attempt to replicate what the human hand or body does anyway. The Martindale machine, which tests denim samples for how quickly they wear down, abrades the fabric down, much as the body would when it wears jeans, to see the fabric strength through levels of surface abrasion. The Kawabata Evalution System – which we have discussed but did not use in this project - attempts to replicate via machinery how the human hand feels when it touches denim (the fabric 'handle'). When quantified the 'handle' refers to fabric properties such as

flexibility, resilience, surface friction amongst others (Makinen et al, 2005). A method that seemed very different to many qualitative methods starts to emerge as having connections with object interviews. This is true in terms of what both methods 'miss' – both explore touch predominantly in terms of what hands do, rather than bodies – and also what they capture about the material properties of jeans.

Initially, the unfamiliarity of textile tests, coupled with a feeling that I 'ought' to know more of the technical terms for analysing fibres, has led to a feeling of anxiety about my perceived lack of knowledge. This feeling has been minimised through the informal discussions; in interdisciplinary projects a feeling of inadequacy or lack of understanding must be quite common but is not written about. The literature on the emotions of researchers tends to focus upon feeling upset due to the content of an interview (Hubbard et al, 2001), or even feeling disgust at the behaviour of research participants (Thurnell-Read, 2011). It is through informal conversations that we discuss our emotions as researchers (Hubbard et al, 2001), which highlights the need to open up a space for informal dialogues to minimise feelings of confusion or anxiety over not understanding certain methods or ideas.

The informal conversations in this project have been central in allowing the team to develop shared insights and interpretations. For example, we have concluded together, from the machine test results on abrasion as well as the interview data, that how much the jeans had been pre-worn affected the results. The properties of the denim emerge

from their histories of being worn by people in conjunction with how the cotton fibres had been woven and dyed. This mirrors some of the theoretical and methodological issues raised earlier that material properties are not absolute (Klepp and Bjerk, 2014, Keane, 2005). Material properties are not just the domain of textile tests as they both inform, and can be informed by, a qualitative exploration of practices and uses. A dialogue allows points of connection to emerge, which are the focus of the next section.

iv. Transformations

The empirical focus of the project is the transformations in old jeans; having a common thread offers a way to think about the connections between different methods which I will consider in this section. The object interviews seek to understand personal narratives of histories of jeans wearing, as participants have narrated specific material changes in their jeans. The textile tests explored the constitution of the current jeans, the ways in which the jeans have been worn down, as well as how they would have worn down in the future. The workshop discussions focused upon the past and future histories of the jeans through the *material imaginings* of workshop-participants. The designer's work in remaking the jeans seeks to extend the trajectory of the denim's life, based upon the potentials of the fabric as well as past practices of wearing (through reading the interview transcripts).

The methods employed in the project can also themselves be seen to be transformatory. This is most explicit in design methodology, as Karen Shah, the designer, has cut up the old jeans, hung them on a mannequin, and sewed them together into new garments.

Figure 1: Waistcoat made by Karen Shah from the old jeans.

In doing this, the finished products (the waistcoat is shown in figure 1) reveal the wear of the denim, the frays and the faded parts. Methods that produce material change are central to design practices; even though it is not an intended outcome, the textile tests also produce material change, whether by dissecting the fabric into its constituent cotton fibres which are then discarded or by abrading the denim by machinery. When the Martindale machine rubs the jeans until they start to break down, it is also a process of *revealing* the properties of jeans (such as how the white undyed cotton fibres emerge). Material properties emerge through process.

Although not producing material change, object interviews explore how people talk about changes in relationship to the material markers of change on the jeans such as stains and frays. Change can be enacted in interviewees' subsequent clothing practices or self-perception, as, for example, they may start trying to repair clothes or select clothing differently. Design, textile technology and object interview all entail different kinds and degrees of transformation but taken together they highlight that

methods do not just capture social and material worlds, but intervene in and help perpetuate these. Reflecting upon how different methods produce change allows an insight into the un-realised ways in which this happens in our own disciplines, as, for example, neither myself for the textile technologist have thought of our methods operating in this way before.

v. The spaces in between methods: visualising the material:

As discussed in the section on dialogue earlier, the multiple methods of the project show connections but also highlight points of difference between methods, which I will focus upon explicitly here. The textile tests and object interviews can be understood in terms of a productive contrast, for example, as interviews can, in Law's sense, make 'absent' material properties, and textile tests can eradicate subjectivity. This subjectivity re-remerges through our discussions, which take place in the 'spaces in between' methods (Hurdley and Dicks, 2011). Hurdley and Dicks develop this idea by considering the relationship between sensory and multi-modal methods. Although neither of these methods has been deployed in this project into old jeans, the ways in which Hurdley and Dicks contrast them to develop new insights is applicable here. In particular, they discuss how sensory methods foreground the 'closeness' of the person in their whole environment and how multi-modal methods connote 'distance' (see Dicks et al, 2006 for further discussion of multi-modal methods). Although very different to the methods used in the jeans project, This contrast between 'closeness' and 'distance' is a useful analogy for exploring the relationship between object interviews and textile

tests. Object interviews explore a person's embodied and material relationship to jeans and the textile technology tests explore the material properties of the jeans. By considering the 'space in between' these methods it is possible to rethink the methods and what they do. Seeing textile tests through the prism of object interviews allows a foregrounding of usually 'hidden' facet of the methods, such as that textile tests are reliant upon the researcher's touch and hands.

This contrast between 'closeness' and 'distance' offers a useful way to think through the visual elements of textile technology and object interview methods. After the object interviews, I have taken photos of the jeans and of material details that the interviewees discussed to explore the relationship between the visual and material (Rose and Tolia-kelly, 2012). In the textile tests, microscopic images of the jeans were taken in order to show the weave structure of the jeans which is not normally visible to the human eye.

Figure 2: Contrast between microscopic images and image taken by an ordinary resolution camera of the same pair of old jeans.

The microscopic images (see figure 2) makes visible facets of the material not evident from a glance at a pair of jeans and makes the jeans appear unfamiliar. When this is juxtaposed with the photographs taken with an ordinary resolution camera, it unsettles how we see jeans, which are so commonly worn that we do not usually notice them.

Different practices of visualizing entailed within different research methods make materiality visible in ways that can unsettle. One of the aims of qualitative work on everyday practices or consumption is often to make the familiar appear unfamiliar in order to highlight the importance and complexities of the mundane. Through looking at these contrasting images of denim and thinking through the space in between methods and data produced we can consider the relationship between the familiar and unfamiliar, distance and closeness, connection and alienation in new ways.

Conclusion

This conclusion reflects upon the three main aims of the article which are: to explore the implication for interdisciplinary research of focusing upon the dialogues between methods, to understand how qualitative methods can be developed to understand the material and to consider the impact of these developments upon qualitative methods more widely. Dialogues are an implicit part of any interdisciplinary project but are rarely written about in journal articles. They are essential in aiding the practical running of a project and in making explicit and reconciling different agendas. For example, in this project the materials experts are interested in technical innovations whereas I am more interested in the everyday. These agendas need to be explicit from the beginning and to be incorporated into the design of the project where each participant states what they want to get out of the project. Interim team meetings allow continued reflection upon these. This project has shown that informal discussions are a useful resource for thinking with which has implications for ethical practices; the potential use of

discussions as data needs to be factored into the ethical 'approval' process. The dialogue between people allows a dialogue between methods, which has been discussed here as a process of 'unsettling', when the assumptions of particular methods and accepted ways of doing things are exposed. Interdisciplinary dialogues that unsettle methods ensure that researchers reflect upon how their home discipline may benefit. This process of reflection keeps methods 'live', as when assumptions and techniques are unsettled adaptions and innovations in methods can be developed.

This dialogic approach has been applied specifically to think about methods and materials. Pre-existing methods like object interviews can be enhanced to explore how the words people use about things can evoke the material. Back discusses the need to redevelop the art of listening (Back, 2007), so too here we need to attune ourselves to what people say, and the silences, to see where the material emerges and disappears. Object interviews tend to elicit people's own accounts of their things, but this project also develops the method of thinking imaginatively with things. This method of reconstructing and imagining people and their practices through engaging with things (akin to archaeological approaches) is not adopted within current social science approaches. When used in conjunction with other methods such as interviews and expanding our repertoire of qualitative methods for thinking about things, our understandings of things are not just channeled by what people say about them.

I started this project thinking that textile tests would offer an understanding of the material properties of jeans and social science methods would offer an understanding of people and their relationship to things. These assumptions have been 'unsettled' through the discussions in the project as all of the methods have offered an understanding of the materials. The methods of materials experts have been enhanced by the insights of the object interviews about previous practices of wear, and vice versa as we developed shared understandings. Materials, things and people are enmeshed and through mixed methods and a dialogue between methods we can start to keep these entanglements intact, rather than separate out 'the material' or 'the social'.

This article is not just about how we develop methods for material culture research but also how thinking with things has implications for qualitative methods more widely. This article is an exhortation to think more generously about what qualitative methods entail and widens the remit of qualitative methods to include how people and researchers can research with things and materials. Given that our relational and social worlds are multi-dimensional and co-constituted through things then using creative material methods can offer new insights and ways of thinking about the whole spectrum of social lives.

Acknowledgements

I would like to acknowledge Jane Wood for carrying out the textile tests and Karen Shah for designing the new garments for this project, and Chris Carr, Pammi Sinha and Muriel Rigout for early involvement in the project as well as the participants in the workshop discussions.

Bibliography

Author 2007, details withheld for peer review

Back L and Puwar N. (eds) (2012) Live Methods. Oxford: Blackwell.

Barry A and Born G (2013) *Interdisciplinarity: Reconfigurations of the Social and Natural Sciences*. London: Routledge.

Bennett J (2010) Vibrant matter: a political ecology of things. Durham: Duke.

Daniels I (2010) The Japanese House: Material Culture in the Modern Home. Oxford: Berg.

Dant T (2010) The Work of Repair: Gesture, Emotion and Sensual Knowledge. Sociological Research Online 15(3) 7. Online only. DOI: 10.5153/sro.2158

Dicks B, Soyinka B and Coffey A (2006) Multimodal ethnography. *Qualitative Research* 6(1): 77–96.

Gaver W, Boucher A, Pennington S and Walker B (2004) Cultural probes and the value of uncertainty. *Interactions - Funology* 11(5): 53-56.

Gell A (1998) Art and Agency. Oxford: Oxford University Press.

Gibson JJ (1977) *The Ecological Approach to Visual Perception*. London: Laurence Erlbaum Publishers.

Harper D (2002) Talking about pictures: A case for photo elicitation. *Visual Studies* 17(1): 13-26.

Harrison R (2011) Surface assemblages. Towards an archaeology in and of the present. *Archaeological Dialogues* 18(2): 141-161.

Hauser K (2004) A Garment in the Dock; or, How the FBI Illuminated the Prehistory of A Pair of Denim Jeans. *Journal of Material Culture* 9(3): 293-313.

Hockey J, Dilley R, Robinson V, and Sherlock A (2013) Worn Shoes: Identity, Memory and Footwear. *Sociological Research Online* 18 (1) 20. Online only. DOI: 10.5153/sro.2897

Hodder I (1998) The interpretation of documents and material culture. In: Denzin N and Lincoln Y (eds) *Collecting and interpreting qualitative materials*. London: Sage, pp. 110-129

Hoskins J (1998) Biographical Objects: how things tell the stories of people's lives. London: Routledge

Hubbard G, Backett-Milburn K and Kemmer D (2001) Working with emotion: Issues for the researcher in fieldwork and teamwork. *International Journal of Social Research Methodology* 4(2): 119-137.

Hurdley R and Dicks B (2011) In-between practice: working in the 'thirdspace' of sensory and multimodal methodology. *Qualitative Research* 11(3) 277–292.

Ingold T (2007) Materials Against Materiality. Archaeological Dialogues 14 (1): 1-16.

Keane W (2005) Signs are not the garb of meaning: on the social analysis of material things. In: Miller D (ed) *Materiality*. Durham: Duke University Press, pp.182-205.

Kingery W (ed) (1996) Learning from things: method and theory of material culture studies. Washington: Smithsonian Institute Press.

Klepp I and Hebrook M (2014) Wool is a knitted fabric that itches, isn't it?. *Critical Studies in Fashion and Beauty* 5(1): 65-91.

Latour B (1993) We have never been modern. Cambridge, Mass: Harvard University Press.

Latour B and Woolgar A (1979) Laboratory Life: the construction of scientific fact.

Beverly Hills, Sage.

Law J (2004) After Method: Mess in Social Science Research. London: Routledge.

Lury C and Wakeford N (2012) *Inventive Methods: the happening of the social.*London: Routledge.

Makinen M, Meinander H, Luible C and Magnenat-Thalmann N (2005) Influence of physical parameters on fabric hand. In: *Proceedings of the HAPTEX'05 Workshop on Haptic and Tactile Perception of Deformable Objects*, Universitat Hannover, December 2005.

Mason J (2006) Mixing methods in a qualitatively driven way. *Qualitative Research* 10(4): 461-478

Mason J and Davies K (2009) Coming to our senses? A critical approach to sensory methodology. Qualitative Research 9(5): 587-603.

Michael M (2012) De-signing the Object of Sociology: toward an 'idiotic' methodology.

In: Back L and Puwar N (eds) *Live Methods*. Oxford: Blackwell, pp166-183

Miller D (1987) *Material Culture and Mass Consumption*. Oxford: Basil Blackwell.

Pink S (2009) Doing Sensory Ethnography. London: Sage.

Rose G and Tolia-Kelly D (eds) (2012) Visuality/Materiality: Images, Objects and Practices Farnham: Ashgate.

Rowsell J (2011) Carrying my Family with me: artefacts as emic perspectives. *Qualitative Research.* 11(3): 331-346

Shankar S (2006) Metaconsumptive Practices and the Circulation of Objectifications. *Journal of Material Culture* 11(3): 293-317.

Shove E, Watson M, Hand M and Ingram J (eds) (2007) *The Design of Everyday Life*. Oxford: Berg.

Thurnell-Read T (2011) 'Common-sense' research: Senses, emotions and embodiment in researching stag tourism in Eastern Europe. Methodological Innovations Online 6(3) 39-49. Online only. DOI: 10.4256/mio.2011.005

Tracy F and Carmichael P (2010) Research ethics and participatory research in an interdisciplinary technology-enhanced learning project. *International Journal of Research* &

Method in Education 33(3): 245-257.

Woodward I (2001) Domestic Objects and the Taste Epiphany: A Resource for Consumption Methodology. *Journal of Material Culture* 6(2): 115-136.