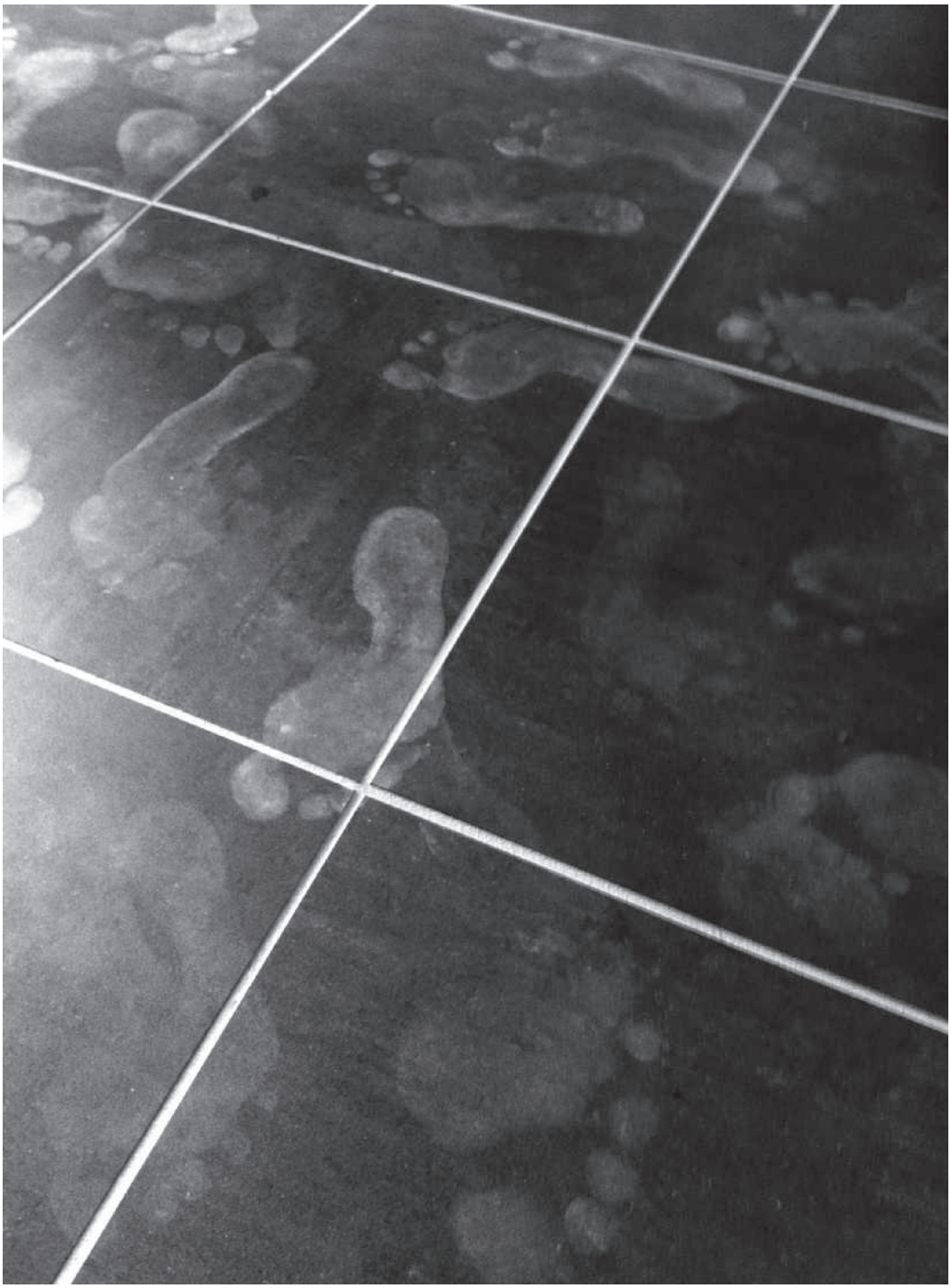
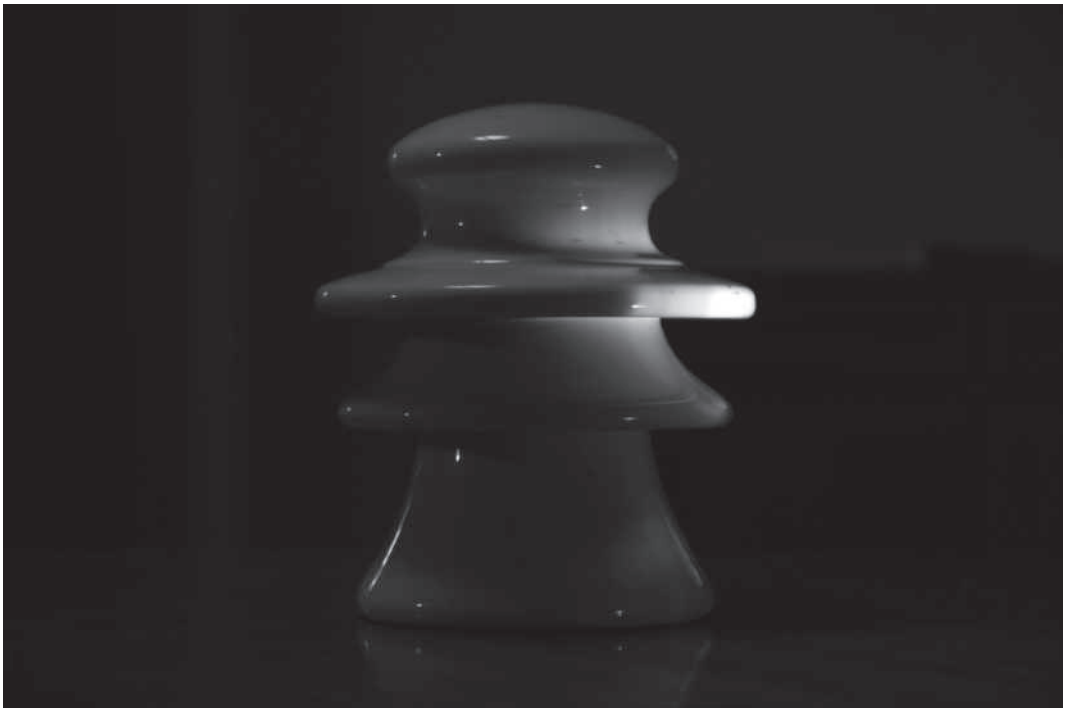


Ethnologia Europaea 41:1
E-journal © Museum Tusculanum Press 2012 :: ISBN 978 87 635 3938 8
www.mtp.hum.ku.dk/details.asp?eln=300309



Ethnologia Europaea 41:1
E-journal © Museum Tusculanum Press 2012 :: ISBN 978 87 635 3938 8
www.mtp.hum.ku.dk/details.asp?eln=300309

ETHNOGRAPHY OF THE INVISIBLE
Energy in the Multisensory Home

Sarah Pink

This article is concerned with the question of the ethnography of the invisible: multisensory research about domestic energy practices. In it I draw on existing and imagined research to outline an agenda for doing ethnography of domestic energy consumption practices. I will not be the first to use qualitative methods to research how people consume energy in their homes. Yet my aim is to further the methodological basis for such research by examining the implications of applying a theory of multisensoriality to understanding the co-constitution of the practices and places of domestic energy consumption.

Keywords: sensory ethnography, the invisible, energy, the home, consumption

Prologue

The alarm from my iPhone wakes me. I check the time on it as I lie in bed, the room is warm and the open window lets in some fresh air. It is nearly summer. There is no need for heating and the thermostat-controlled system has been off for at least a month. I step out onto the wooden floor soon to be exchanged by the soft carpet along the landing and down the stairs, where I reach the tiled floor of the cooler ground floor of the house. I open the door into the kitchen, again warmer from the heat of the gas-powered AGA oven, which is permanently on until the real summer starts, and open the window to let some of the warmth out before emptying, washing out with hot water and then refilling the traditional Spanish style *cafetera* with water from the tap and coffee from Ethiopia. The heat surges up at me as I open up the cover of the hottest plate on the AGA to stand the *cafetera* on it, in expectation of its bubbling sound and the smell of freshly brewed coffee. Then I take a glass from the dishwasher, which has been cleaning over night, and fill it with cold water. The fridge is quietly humming in the corner. I open the door, now feeling its coolness hit me as I take out the milk, yoghurt and blueberries. The blueberries have usually been imported from Latin America even if purchased from a local shop and carried home in a non-plastic bag.

The house is still quiet and still waiting for the coffee to surge up through the cafetera. I eat yoghurt and berries while checking my e-mail on my phone to see what I will have to do once I go upstairs to my study. Once the coffee is done I seal the heat back into the AGA by closing the hot plate cover, pour the coffee, add milk and again open the fridge, feeling its soothing coolness as I put the milk away. Taking the coffee I make my way back upstairs, switching on the power for the wireless router on my way. Once in my study I power up my laptop, plug in the iPhone to recharge and settle down to work. I check into Face-

book to find an announcement about the next media anthropology network seminar that will be online later today and reflect on how many people are crossing social media platforms and technologies as they post to Facebook, tweet and blog through their computers and phones. Then I turn to my e-mail opening a message about a meeting for the project I begin working on this year (2010) – LEEDR (Low Effort Energy Demand Reduction), funded by the Engineering and Physical Sciences Research Council (EPSRC) in the United Kingdom (see http://www.leedr-project.co.uk/ for more details). LEEDR is an interdisciplinary project which, as our statement about the project puts it,

> brings together academic experts in the fields of social science, user interface design, product design, building modelling and energy consumption, systems engineering and computer science with householders, energy providers and business to focus on the issue of using digital technology for reducing energy demand in the home. (http://gow.epsrc.ac.uk/ViewGrant.aspx?GrantRef=EP/I000267/1)

I am now at the top of the house in its warmest room. As I have assumed that heat travels up I very rarely heat this room at all, even in winter. Now I open the attic windows looking out over the rooftops and feeling that it must be wrong to heat the kitchen, cool the attic and not have solar panels installed on the roof.

The ways we use fresh air, water, gas and electricity are inextricable from our sensory and affective experiences of home. They are both contingent on the infrastructure of the home and themselves participate in the constitution of the sensory home. The description of the start to my own day above gives something of a sense of how domestic practices, energy sources and materialities are combined in ways that constitute our sensory experience of the home. As my narrative also shows, these experiences can be punctuated by moral discourses about the need to reduce energy consumption and how this might be done, although these discourses might be present within a practice without requiring that the practice conform to their principles. It was by actively performing and reflecting on my early morning experiences that I was able to turn them into a 'story' that draws together a series of things and subjective experiences that might superficially appear unrelated into an ethnographic event. Yet to date research methods for understanding such fundamental aspects of everyday life (and such fundamental themes for understanding sustainability) have largely been remarkably conventional. My proposal is that to understand the *invisible* resources of everyday life – the gas, electricity and other power sources that fuel the hot water in our coffee, washing machines, baths, showers and radiators, that power our computers, Internet routers, mobile phones, televisions, and more – sophisticated methodologies and innovative performative and reflexive methods are needed. More generally I argue that an approach to ethnography that attends to the sensory categories through which we understanding our face-to-face and mediated lives and to the multisensoriality of everyday embodied experiences, plays an important role in this process of understanding what is, on the surface of it, invisible.

Introduction

This article presents a series of questions and issues concerning doing research about domestic energy practices.* In it I imagine research that has not yet been done. The fantasy I develop is grounded in three projects, two I have worked on in recent years and the other to commence within months of the seminar. The basis for imagining the latter research engagements emerges from my earlier research experiences and my autoethnography of my own experiences of energy and digital media.

Energy, to the ordinary consumer, is invisible, as is often stressed in social science literature about energy consumption (see e.g. Lutzenhiser et al. 2009). It is also at the outset invisible to the ethnographer. Yet this is perhaps not such an unusual situation for the anthropological ethnographer to find herself or himself in. Moreover for the sensory ethnographer the point that something cannot be seen is not

Ethnologia Europaea 41:1
E-journal © Museum Tusculanum Press 2012 :: ISBN 978 87 635 3938 8
www.mtp.hum.ku.dk/details.asp?eln=300309

necessarily an obstacle to researching it. Indeed the question of the ethnography of the invisible, and of the use of visual methods in researching the invisible qualities of everyday life or special events is not new. In 1992 the anthropologist Kirsten Hastrup grappled with the problem of how photographs did not represent her experience of anthropological fieldwork at an Icelandic ram exhibition. She writes: 'the nature of the event could not be recorded in photography. The texture of maleness and sex which filled the room had been an intense sensory experience, but it was invisible.' Through photography she considered that, 'The reality of the total social event had been transformed in to a two-dimensional image, a souvenir … For me it invokes a particular memory, for others the information is very limited' (1992: 9). Understanding the use of energy in homes and the way we engage with and experience visual and digital media in ethnographic practice, both involve considerations of the *qualities* of experience, the sensory, affective and satisfying dimensions of everyday life – what Alan Warde has termed the internal rewards of practice (2005). To research the use of invisible energy we need to engage with these visible and material practices, processes, technologies and persons that consume energy.

Another dimension of the invisible in ethnography refers to things that are not evident because they happen when we are not there. Thus inviting the question of how we might find routes to documenting, understanding and empathising with them. Elsewhere (e.g. Pink 2004, 2006, 2007) I have discussed how video walks around the home and other everyday life contexts, and the (re)enactment of everyday activities, are important in evoking memories and explanations of past events and the sentiments and practical activities that are associated with everyday life practices. This can be particularly interesting for the evocation of sensory experiences (2009) and for the sensory ethnographer seeking to investigate the invisible it can be an invaluable tool. Yet, while visual methods can bring some dimensions of sensory experience to the fore, they are limited. As the autoethnographic account with which I began this article shows, there are a range of ways in which the sensory, affective and moral experiences of everyday life can be attended to. Indeed below I suggest a mix of methods that together might enable new approximations of the invisible in everyday life.

However, before discussing the methodologies of investigating what we cannot see or otherwise directly witness, I explore further how and where invisible energy comes into play through another example drawn from my personal experience. In doing so I outline the research trajectory that led me to questions about invisible energy and the sensory home.

Arriving at the Invisible

When I lived in Spain in the 1990s I soon became aware of the extent to which both family mealtimes and TV programming were shaped around mealtime viewing. The relationship between lunchtime and viewing television stood out to me because in England I had never experienced this before. In Spain watching TV seemed to be as much part of the aesthetics of lunchtime as the taste of the food. It was moreover equally part of the domestic energy consumption that is associated with making and eating a meal as was the everyday plugging in of the electric whisk, lighting the gas to fry the fish, and heat the coffee, warming the milk in the microwave, chilling the custard in the fridge and heating water to wash up the pans. If I had simply been interviewing Spanish people about how much gas and electricity they used in their everyday cooking and cleaning practices I would not necessarily have made this association. The aesthetics of the meal, although they unbalanced my English sense of a mealtime, often, it seemed to me, required a television. The place-event of lunchtime was constituted through much more than cooking practices (as well as the TV, this included the sociality around the TV, the food, in the winter a *brasero* – the electric version of a traditional coal-fuelled under-table heater – and in the hot summers an electric fan or air conditioning). As it happened I did not interview people about cooking or gas or electricity at the time because I was doing ethnography about women in the much more public context of bullfighting. However, some years later, in

Ethnologia Europaea 41:1
E-journal © Museum Tusculanum Press 2012 :: ISBN 978 87 635 3938 8
www.mtp.hum.ku.dk/details.asp?eln=300309

1999, I did a comparative video ethnography project about everyday housework and home decoration practices in Spain and England which has in retrospect offered me opportunities to follow through how electricity and gas are used through domestic processes and practices.

From 1999–2000 my research about everyday domestic practices was not focused on energy use *per se* but on practices through which energy is consumed – laundry, washing up and bathroom cleaning (Pink 2004, 2006, 2007). From this research emerged the idea of the sensory home (Pink 2004), which led me to ask a further question concerning the sensoriality of other environments. From 2005–07 I followed this by connecting this question with research focused on sustainability issues, through a multisited ethnography of the Slow City movement in the United Kingdom. In both projects I developed visual and sensory research methods as appropriate to the tasks of each project. These included touring and walking methods, usually involving technology such as video, photography or audio recording, audiorecorded interviews and some pen and paper note taking. I have written about these methods extensively in various publications and most notably in my books *Doing Visual Ethnography* (Pink 2007) and *Doing Sensory Ethnography* (Pink 2009).

Since 2007 my theoretical and methodological work has focused increasingly on understanding questions around multisensoriality, movement and the constitution of place. Along with this I began to consider the findings and methodologies of my work about domestic practices on the one hand and the slow movement on the other might converge through a focus on the practices of everyday life and the environments of which they are a part. I am writing about this in forthcoming publications. However, a second outcome of these two projects for me has been the idea of bringing together the theoretical, methodological, applied and ethnographic questions further to develop research that focused both on the home and sustainability. The result of this was a research agenda to understand everyday domestic energy consumption though the theory of the multisensory home. In my current work I am approaching this question more directly, as follows.

The reduction of domestic energy consumption is a key issue in the UK, and as such represents an important research challenge, not only for social scientists but also at an interdisciplinary level. Social scientists and, I believe, ethnographic approaches, have an important role to play in this process, offering exciting opportunities to participate in research that will simultaneously make scholarly and applied contributions and that creates new stages for interdisciplinary and collaborative working. Within this context, I am leading, as a co-investigator, the ethnographic strand of the interdisciplinary LEEDR project at Loughborough University where I am based (see above). LEEDR is a 3 years and 7 months project commencing in the academic year 2010–11. In what follows I summarise the project outline. Because the language used in the project description is necessarily used to cross disciplines, I quote in part directly from the text. The project is developed in a context where UK domestic energy consumption accounts for 30 percent of the country's total energy demand and by 2050 the government is aiming at near zero carbon emissions. By 2030 the UK government intends smart meters, which allow us to have much more information about how much energy we are using in our homes, to be distributed to all households. The LEEDR project seeks to find new routes to understanding how and where we can reduce energy consumption in ways that do not impact on our lifestyles unacceptably. As described above this is an interdisciplinary project with both sociologically and technological dimensions. The ethnographic part which I lead focuses on 'understanding how everyday practices in the home (including the use of digital media) result in the consumption of energy' and is also involved in the question of 'how this information can offer opportunities to develop products and services that are attractive to the householder and that have a real impact on energy consumption in the home' (http://gow.epsrc.ac.uk/ViewGrant.aspx?GrantRef=EP/I000267/1).

The ethnography, along with measurement data produced through engineering studies, will inform a series of design and engineering interventions. The

Ethnologia Europaea 41:1
E-journal © Museum Tusculanum Press 2012 :: ISBN 978 87 635 3938 8
www.mtp.hum.ku.dk/details.asp?eln=300309

area covered by the ethnographic part of the project will be an exploration of domestic energy using practices in relation to digital media practices. We will be seeking to understand how people's existing digital media practices might support their recruitment to practices and digital technologies that will enable them to reduce their domestic energy consumption. A later stage in the ethnographic research will involve understanding the ways that users interact with the design interventions. The LEEDR project demands the design of interdisciplinary methodologies that support the collaboration and communication between quite different academic disciplines. It also, however, involves the development of innovative methodologies within the social science and ethnographic strand of the research. In this article therefore I focus on just one aspect of the ethnographic theme, by exploring sensory ethnography methods for researching domestic energy consumption. To achieve this requires a series of innovations that open up methodological, theoretical and empirical questions that I believe have not yet been fully explored through existing methods for researching domestic energy in the social sciences. It involves developing a phenomenological methodology that can appropriately inform such methods. In this paper I explore this through a central question of: *How can we research the meanings and experiences of something that is intangible and invisible?* While the immediate application is to understand invisible elements including energy, tacit ways on knowing and memory in the home, there are also wider implications for researching the hidden, and therefore it is my hope that this article will also provide a useful basis for reflection for other researchers investigating 'invisible' research themes.

Invisible Energy

As I have noted above, energy is understood as invisible. As Wilhite has pointed out actually 'people do not consume energy *per se*, but rather the things energy makes possible, such as light, clean clothes, travel, refrigeration and so on' (Wilhite 2005: 2; see Shove 2003). Generally sociological approaches to energy suggest domestic energy consumption is best understood and studied as embedded in wider complexes of practices, priorities and processes of socio-technological change (see Shove 2003). Therefore already suggesting a methodology that approaches energy consumption through the practices by which it is manifested rather than directly as a practice itself. This approach provides a valuable route towards knowledge about historical process and the changes in collective practices. Yet for the purposes of the LEEDR project where we are seeking to create design interventions that will be appropriate for participants to engage with as part of the unique circumstances of their everyday lives and experienced realities, a phenomenological approach that will allow a deeper understanding of what domestic energy consumption (practices) feel like (that is affective and multisensory feelings) is needed. There is however little discussion of ethnographic methodology in social science work on energy consumption. An exception is the work of the anthropologist Annette Henning. Drawing on an interview-based study with Swedish couples focusing on experiences of thermal comfort, Henning (2006) calls for a focus on memory, emotional and sensory elements of thermal comfort and a spatial understanding of the home. She argues that these might inform technical developments. Henning has also discussed the use of more conventional anthropological methods in energy research. For example she describes a project that focused on the 'cultural structures and processes that tend to limit the opportunities for Swedish households to reduce their energy for heating purposes,' for part of which 'participant observation, small-talk, interviews and the study of magazines, advertisements, etc.' was undertaken as well as following some households through house-buying processes (Henning 2008: 54).

This existing research about domestic energy consumption has already made important interventions in debates about sustainability, pointed out the deficiencies in 'behaviour change' approaches, and in some cases argued for an anthropological perspective on energy (Wilhite 2005; Henning 2005). The anthropology of energy is indeed more prominent elsewhere than in the United Kingdom, for example

Ethnologia Europaea 41:1
E-journal © Museum Tusculanum Press 2012 :: ISBN 978 87 635 3938 8
www.mtp.hum.ku.dk/details.asp?eln=300309

in North America (e.g. see Nader 2006; Wilk n.d.) and in Nordic countries (e.g. Henning 2005; Wilhite 2005). Henning has made important points about attending to the senses in this field of research (2006). Yet the anthropology of energy remains rather conventional in its methods. What would happen if this field were approached through the increasing range of innovative ethnographic methods that are currently being explored in methodology literatures? What if the emphasis was switched from verbal accounts to experiential explorations rooted in a visual and multisensory anthropology?

Embodiment, the Senses and Energy in the Home

Up to this point I have focused on the question of how fossil fuel energy consumption is experienced in the home. Yet – although this connection seems to be rarely made in contemporary writing on energy – this question is also inextricable from that of human energy expenditure (but see Nader & Beckerman [1978]2010). As an undergraduate student in the 1980s I was fascinated by studies of hunter-gather societies and Marshall Sahlins's (1972) notion of 'The Original Affluent Society' where the question of human energy expended in the accomplishment of subsistence activities is central. While I am not proposing a return to the ecological anthropology and its methods of the 1970s and 1980s, this body of work does remind us of a key issue: domestic energy can be taken to refer not only to fossil fuel energy but to the embodied energy of human practitioners. Moreover, while I clearly take the analysis in a rather different methodological and theoretical direction here, it is interesting to acknowledge the parallels between this earlier literature and contemporary interdisciplinary theoretical concerns with movement, mobilities, walking and the embodied nature of practice (even if they are based on rather different philosophical assumptions). The point I want to make is that everyday domestic practices all involve human movement, the treading of routes through the home, and as such human energy. These uses of human energy are inextricably related to the consumption of gas and electricity. They are moreover fundamental to the ways we experience, perceive and act as part of the multisensory environment of the home. Thus, how do human energies, emotions, memories and sensory-embodied experiences (following Henning) become part of the energy ecologies of homes? And what methods provide the best routes to knowledge about this?

I suggest that by developing a methodology that is informed by theories of multisensoriality, movement and place, and that therefore also encompasses human energy, movement and the 'feelings' that this engages both physically and emotionally, we might arrive at a deeper way of understanding the meanings and practices of domestic energy use. Such an approach moreover supports an applied perspective by producing a better understanding of how to make design interventions that will help people work towards reducing energy consumption. It raises questions of documentation, representation and how to communicate this to designers and engineers, as well as back to participants and to wider audiences. Therefore, in what follows I discuss a series of ethnographic methods for understanding domestic energy use in the multisensory home-place. These methods go beyond conventional uses of the interview and participant observation in doing ethnography. Moreover they also extend the focus on energy beyond energy consuming practices, to focus on energy from a range of different perspectives, including that of sensory experience:

1. Autoethnography – the energy day diary – following the experiences as they happen and the experiences of the invisible human and other energy used.
2. Following domestic artefacts – following the material culture of domestic life to see how objects move around and make the home. How do they consume energy as they move? How do they make invisible energy 'visible'?
3. Touring the home – the video tour of the home involves inviting people to show and demonstrate their experiences of the home, and allows us to explore invisible memories and meanings through the evocations of the material and the sensory.

Ethnologia Europaea 41:1
E-journal © Museum Tusculanum Press 2012 :: ISBN 978 87 635 3938 8
www.mtp.hum.ku.dk/details.asp?eln=300309

4. Focusing on the practices – video recorded (re)enactments of 'normal' everyday activities allow us to follow people's embodied engagements to examine the invisible dimensions of skilled knowing.

First I outline a theoretical/methodological framework for understanding domestic energy consumption in relation to human movement and emotion in the sensory home-place.

Human Movement and Emotion in the Sensory Home-Place

In my book *Doing Sensory Ethnography* (Pink 2009) I outline an understanding of ethnographic practice rooted in phenomenological anthropology. This approach attends to human perception, movement and emplacement as a set of central principles through which to understand how we experience the social, sensory, material and imaginary elements of our everyday lives and the ways in which everyday life practices are part of and contingent on these contexts and perceptions. Here I briefly repeat the key features of these ideas since they inform the agenda for doing innovative sensory ethnography in the sensory (energy filled) home outlined below.

Multisensoriality. The idea of the interconnected senses is increasingly accepted across the social sciences and humanities. The approach I take to understanding multisensoriality acknowledges the contribution of the sensory cultures approach developed in the anthropology of the senses of the 1990s (e.g. in the work of David Howes 1991 as well as in Howes 2003 and 2005) but follows more closely an approach that is informed by the phenomenology of perception and neurological sciences. Much recent scholarship in this area (across disciplines) is influenced by the phenomenology of perception of the philosopher Maurice Merleau-Ponty, which offers a useful framework for understanding mutlisensoriality. This approach is developed by the anthropologist Tim Ingold in the context of a discussion of the relationship between sight and hearing. Ingold takes up Merleau-Ponty's point that the body should not be understood as 'a collection of adjacent organs but a synergic system, all of the functions of which are exercised and linked together in the general action of being in the world' (Merleau-Ponty 1962: 234, cited in Ingold 2000: 268). Thus for Ingold's argument, this makes 'sight and hearing, to the extent that they can be distinguished at all, facets of this action' (Ingold 2000: 268). According to this approach, then, sight and hearing might be understood as part of an encompassing process of perception whereby they and other senses are actually inseparable. Indeed anthropological research has shown very well that sensory categories are culturally constructed and specific (e.g. Geurts 2003). Although I have no claims to expertise in neuroscience, recent publications in this area suggest there are some interesting correspondences, in that they also find that 'the five senses do not travel along separate channels, but interact to a degree few scientists would have believed only a decade ago' (Cytowic 2010: 46). Therefore, for the purposes of this article, the senses are interconnected. I refer to this as a multisensory approach. The relevance of this for the discussion here is that it suggests that the tacit and often unspoken ways in which people experience domestic practices that consume energy need to be understood as embodied and multisensory. What we find out about the ways in which people experience thermal conditions, use of the fridge, or doing the laundry when we interview them is therefore very limited because we are asking them to communicate about an experience (that they infrequently discuss with anyone) which is embodied using verbal categories. A sensory ethnography attends to both seeking non-verbal ways to understand and communicate about the experiential dimensions of the phenomena we research, while also examining how verbal categories are used by people to classify and communicate about these experiences.

Movement. The idea of situating knowing in movement is becoming increasingly popular in phenomenological anthropology – as Ingold has put it we 'know *as* we go, not *before* we go' (2000: 239) and in Mark Harris's words even very abstract forms of knowing occur within specific environments, and in movement – in that a person does not '*stop* in order to know: she continues' (2007: 1, original italics).

Ethnologia Europaea 41:1
E-journal © Museum Tusculanum Press 2012 :: ISBN 978 87 635 3938 8
www.mtp.hum.ku.dk/details.asp?eln=300309

Therefore, to understand how people experience the use of both their own embodied energy and the practices through which they consume fossil fuel energy in their homes, and importantly how they *know* the focus needs not to be on what they can verbally report. Rather it should be on seeking routes to understand and communicate about how they know in movement, in practice and in ways that are not necessarily expressed verbally. Thus, rather than simply interviewing, asking and audiorecording questions and answers, when researching energy in the home the sensory ethnographer is herself or himself moving, taking a route through the (domestic) world. This in turn can be understood as a route to knowing about other people's experiences in/of movement. However, the methodology advanced here focuses not only on human movement but on the idea that we inhabit an environment that is always in movement and this applies equally to the mundane domestic objects that form part of our everyday lives. Therefore we should understand laundry items, washing up, the water that gurgles through our pipes and more as being part of the constitution of the domestic home, not simply as a static entity but as a vital, multisensory and moving configuration.

Place. To understand domestic energy use, the materiality, sensoriality and human movement and affect that it involves, I use a theory of place and emplacement. This draws on recent work across geography and anthropology that conceptualises place as what Massey (2005) refers to as 'a constellation of processes' and things and is discussed in forthcoming publications. It recognises place as open or unbounded (Massey 2005; Ingold 2008) and fluid and provides a way to understand the contingency and situatedness of practice. It distinguishes between place as a theoretical construct on the one hand, and locality as an everyday experience on the other. Following Ingold, I understand places as made through movement, as 'meshworks' (2007, 2008), which can also be thought of as ecologies of things in movement. The way energy is consumed in specific homes is contingent on these ecologies of place. The ethnographer herself or himself is both part of the ecology of place in which she or he does research, and also plays a role in the creation of what I call 'ethnographic places' – the representations of place and its constituents that we as researchers seek to communicate to others (Pink 2009). To make ethnographic places we precisely bring together a series of things and processes and explore their relatedness.

Emotion, memory, imagination. Following from the above, 'knowing in practice' (as Wenger 1998 has put it) is not simply concerned with practical knowledge about, for example, when the mixture is thick enough for us to turn off the electric whisk when cooking. Rather the performance of domestic practices is also embedded with affective ways of knowing, it is a medium through which memories are constituted and sustained. For example, the memory of a person from one's past might be associated with washing up with a particular detergent, or with the sensory experience of hanging out the laundry on a sunny day as the smell, texture of damp cloth and sunlight on one's skin 'brings back'/invokes a sense of social and material situatedness and emplacement from the past. Domestic practices are also embedded with a range of emotions, and related power relations, for example when the person responsible for doing the laundry gains the power to decide what will be washed and when, and what will be returned to its place unwashed, or through the question of which members of the household respectively turn up and down the temperature of the heating in their homes.

The sensory home-place is therefore the constellation of things and processes (sensory qualities, emotions, imaginaries, persons, things – such as washing machines, spoons, windows – discourses, flows of gas, electricity, and much more) that come together, whose trajectories are interwoven as they move at different rates and in different ways. The intensity of interrelations between these create the home, they make it perceptible as a locality. Yet it is not necessarily always *visible*, or at least not completely.

Doing Ethnography of Energy Consumption in the Sensory Home-Place

How then do we set about researching energy consumption in the sensory home-place, a place that is constituted through the movement of things and

Ethnologia Europaea 41:1
E-journal © Museum Tusculanum Press 2012 :: ISBN 978 87 635 3938 8
www.mtp.hum.ku.dk/details.asp?eln=300309

persons? My suggestion is that such an ethnography can be developed through a focus on movement: movement forward in time, movement of things (material culture) through the home, moving the research through the home, and the movements that are part of the way that practices are performed. By situating the research in movements the implication is that we might find routes to knowing about the invisible, unsaid elements of life in the home that are experienced and known in movement. In more practical terms for tracking the invisible – that is domestic energy – a focus on movement allows us to understand energy as embodied and as implicated when things move and when they intersect with other things. In this section I outline a series of research methods that follow the methodology outlined above to explore energy consumption in the sensory home-place.

Autoethnography/participant ethnography. I began this article with an account of my own energy consumption experiences, from the perspective of my own understanding of what was happening, during the first minutes of a 'normal' day. The energy-use diary offers an opportunity to reflect consciously on how we use energy in the home, as we engage in different practices and move from room to room. It requires a certain effort in thinking about practices and movements as being related to energy consumption, but in doing so it enables us to follow the diary keepers' experiences as she or he recalls them and showing how invisible energies are expended, consumed and experienced. The example with which I opened this article outlined my own experience of getting up and starting work in the morning through a narrative of the use of energy-powered technologies and some of the (moral) discourses I attached to them. In it I was careful to be attentive to the ways that energy use was implicated in the sensory experience of the home, including experiences of warmth, cold, smell, and more. Such diaries offer routes into knowing about how the expenditure and use of human and fossil fuel energy are interwoven as people go about their everyday lives, what is used when, why and how, and what moral and other values are attached to this. While such diaries offer some understandings of the temporal patterning of everyday energy use they are not intended to be time-use diaries that create strict patterning of everyday activities. Rather I would suggest that they could provide rich personal narratives that show us how the invisible can be made visible through conscious attention to the research brief.

Domestic material culture routes. Domestic material culture, as I have emphasised above, is not static. Rather an investigation of how it moves around the home and is involved in the processes through which the sensory home I made can contribute to the research task of making invisible energy visible. For example, as I discuss at length elsewhere (Pink forthcoming) following the laundry can show us how laundry practices go far beyond simply putting the washing machine on. Rather, they might involve making a cup of tea once the wash is in, watching TV while ironing, using the tumble dryer to dry the clothes indoors rather than human energy to peg them out on the line, putting the radiators on to dry clothes when it is raining, even though the home is already warm enough. As laundry items travel around the home, in various sensory states of being dirty, clean, wet, damp, dry, soft, ironed, fragrant and more they imply and implicate energy sources in their further sensory transformation. Tracing the routes taken by these domestic artefacts and the practices and sensations associated with them enables us to make visible the processes through which energy is used to transform them. The same principle can be applied to other domestic practices.

The video tour of the home. I have written about the domestic video tour in a number of recent works (Pink 2004, 2006, 2007, 2009). It is a video ethnography method that I first used to research domestic environments and which led to my developing the notion of the 'sensory home' (Pink 2004). In my earlier work the method has been used to explore the home through the prism of how it is cleaned, decorated and cared for (Pink 2004) and how it is constituted through laundry (Pink 2005, 2007, 2009). The method is likewise suited well to exploring the home through the narrative of energy use particularly because it involves going from room to room to exam-

Ethnologia Europaea 41:1
E-journal © Museum Tusculanum Press 2012 :: ISBN 978 87 635 3938 8
www.mtp.hum.ku.dk/details.asp?eln=300309

ine the artefacts, memories, routine practices and other activities that participants engage in, along the research theme. In more theoretical terms the video tour, in which the participant 'shows' the researcher the home while the researcher video records in such a way that is responsive to the participant's guidance, enables researcher and participant to co-create an 'ethnographic place' traced on video. While one (perhaps complementary) way of understanding how energy is used in the home would be to draw a map of the home and locate different energy-using practices in different rooms, moving through the home offers a different perspective. In contrast to mapping out the home from above, the video tour offers a route through and in the home, a way of understanding the home as a lived series of routes and performances. Moving through the home involves encounters with the material and sensory environment of the home and the meanings, memories and performativities that are part of this. In terms of understanding energy use in the home it allows us to explore how and where energies are engaged in the creation of the sensory home, by examining for example, how 'atmosphere' is created in a room. This might for instance involve a series of different practices, appliances and types of energy, which are combined in complex ways to make the room 'feel right', for example, through the use of electricity to play music, gas for the heating, low lighting, perhaps combined with candles, scented oils burning, fabrics, digital photograph frames and more. The video tour of the home is also a shared tour; the researcher and participant move together through the home, explore it together in doing so and the hope is to arrive at some form of shared knowing.

Focus on knowing through the practices. Above I have made reference to Etienne Wenger's notion of 'knowing in practice' (1998). Wenger argues that 'knowing is defined only in the context of specific practices,' and writes of 'the experience of knowing' as one of 'participation' (1998: 142). As I have noted above, I follow the idea that knowing also comes about in movement (as developed by Harris, Ingold and others). Video-recorded (re)enactments (discussed also in Pink 2009) offer the sensory ethnographer a route to understanding the ways that other people know as they do – 'in practice'. Such research exercises are not of course a way to directly access other persons' sensory embodied and emplaced knowledge – that would be impossible. Rather it involves following, on video, and as directed and discussed with a research participant, their movements to examine their skilled ways of knowing and working with the invisible – energy – in their domestic practices. Participants might not always think of what they are doing as ways of consuming energy (although in some cases they may reflect on this in ways similar to those I do myself in the opening example of this article). Yet by engaging with them through video while they perform everyday practices that consume energy we can collaboratively arrive at routes into understanding how and why certain levels of energy consumption are realised. Video (re)enactments are not observations of naturalistic behaviour, rather they are research events in which participants (re)enact everyday practices for the research process. As such they are reflective and contemplative events as well as being ways of documenting the stages and actions that a particular practice entails. When applied to domestic practices this typically gives the research participants an opportunity to contemplate an everyday activity that they have 'never thought about before'. In doing so they are likely to translate their embodied multisensory experiences into commonly used categories of experience so that they can express them to others. Yet, using video to record this also gives them the opportunity to communicate about this multisensory way of knowing practice *in practice*, as such using not just words, but also and often more appropriately their whole bodies, actions and material and sensory props as ways of representing the experiences of and ways of knowing in that practice.

To Conclude

In this article I have outlined an approach to researching the invisible, to making domestic energy visible, through a focus on multisensory practices that goes beyond interview-based methodologies that are often used to research everyday energy use.

Ethnologia Europaea 41:1
E-journal © Museum Tusculanum Press 2012 :: ISBN 978 87 635 3938 8
www.mtp.hum.ku.dk/details.asp?eln=300309

In the LEEDR project discussed above, these will be accompanied by other ways of making energy use visible – such as energy-use monitoring, and numerical modelling based on this. What is novel about this approach to ethnography? In some ways it could be argued that it is in fact part of an increasing shift in the mainstream in that it joins approaches to ethnography that depart from what I would now call 'classic' ethnographic practices of participant observation and interviewing, engages different technologies, and involves people intensively in the research process in concentrated ways rather than extensively over longer periods. It combines material culture approaches with the focus on movement drawn from phenomenological anthropology, and uses visual and sensory methodologies as ways of seeking routes to knowing about other people's experiences. It is also ultimately an applied ethnography, which as it develops needs to be communicated to an interdisciplinary team and to be understood in relation with other very different scientific ways of knowing about domestic energy consumption.

The wider implications of my discussion of the idea of doing an ethnography of invisible energy in the sensory home respond to contemporary discussions about the nature of ethnographic methodology. We are part of an era where there is an increasing focus on practice, knowing, the senses, place and an increasing need to develop our understanding of these themes in applied research. A sensory ethnography approach to researching the invisible, I suggest might offer us a route to at least some of the ways of knowing with which ethnographers need to engage in order that we should have a meaningful role in the development of applied interventions.

Note

* The initial inspiration for this article was an invitation from Orvar Löfgren to participate in the Irregular Ethnographies workshop held in Lund in 2010. I owe much to Orvar for involving me in this event and to my co-participants with whom I spent two days having some of the most interesting discussions of ethnography I have experienced, which inevitably influenced the further development of this article. My further thanks to Tom O'Dell and Robert Willim for their comments and work which has turned the paper into this journal article, as well as to the two anonymous reviewers whose insightful comments inspired me to think beyond the ideas expressed in the original text in several ways.

References

Cytowic, Richard 2010: Our Hidden Superpowers. *New Scientist*, 24 April 2010, 46.

Geurts, Kathryn Linn 2003: *Culture and the Senses: Bodily Ways of Knowing in an African Community*. Berkeley, Los Angeles & London: University of California Press.

Harris, Mark 2007: Introduction: Ways of Knowing. In: M. Harris (ed.), *Ways of Knowing: New Approaches in the Anthropology of Experience and Learning.* Oxford: Berghahn.

Hastrup, Kirsten 1992: Anthropological Vision: Some Notes on Visual and Textual Authority. In: P.I. Crawford & D. Turton (eds.), *Film as Ethnography.* Manchester: Manchester University Press.

Henning, Annette 2005: Climate Change and Energy Use: The Role for Anthropological Research. *Anthropology Today*, 21: 3, 8–12.

Henning, Annette 2006: Can Qualitative Methods Support the Development of more Flexible and Energy Saving Thermal Comfort? On-line at http://nceub.commoncense.info/uploads/Henning.pdf. Accessed 17 April 2011.

Henning, Annette 2008: Heating Swedish Houses: A Discussion about Decisions, Change and Stability. *Anthropological Notebooks*, 14: 3, 53–66.

Howes, David (ed.) 1991: *The Varieties of Sensory Experience: A Sourcebook in the Anthropology of the Senses*. Toronto, Buffalo & London: University of Toronto Press.

Howes, David 2003: *Sensing Culture: Engaging the Senses in Culture and Social Theory*. Ann Arbour: The University of Michigan Press.

Howes, David 2005: Introduction. In: D. Howes (ed.), *Empire of the Senses: The Sensory Culture Reader*. Oxford: Berg.

Ingold, Tim 2000: *The Perception of the Environment.* London: Routledge.

Ingold, Tim 2007: *Lines: A Brief History*. London: Routledge.

Ingold, Tim 2008: Bindings against Boundaries: Entanglements of Life in an Open World. *Environment and Planning A*, 40, 1796–1810.

Lee, Richard 1979: *The !Kung San: Men, Women, and Work, in a Foraging Society*. Cambridge, Massachusetts: Harvard University Press.

Lutzenhieser, Loren and contributing authors 2009: *Behavioral Assumptions Underlying California Residential Sector Energy Efficiency Programs*. California Institute for Energy and Environment Oakland, CA. On-line at http://cieedev.eecs.berkeley.edu/energyeff/documents/ba_ee_res_wp.pdf. Accessed 17 April 2011.

Massey, Doreen 2005: *For Space*. London: Sage.

Merleau-Ponty, Maurice 1962: *The Phenomenology of Perception*. Trans. C. Smith. London: Routledge and Kegan Paul.

Nader, Laura 2006: Rediscovering Energy Issues: A Response to Harold Wilhite and Annette Henning. *Anthropology Today*, 22: 2, 22.

Nader, Laura & Stephen Beckerman [1978]2010: Energy as it Relates to the Quality and Style of Life. In: L. Nader (ed.), *The Energy Reader*. Oxford: Wiley-Blackwell.

Pink, Sarah 2004: *Home Truths.* Oxford: Berg.

Pink, Sarah 2006: *The Future of Visual Anthropology.* London: Routledge.

Pink, Sarah 2007: *Doing Visual Ethnography.* London: Sage.

Pink, Sarah 2009: *Doing Sensory Ethnography.* London: Sage.

Pink, Sarah forthcoming: *Situating Everyday Life: Practices and Places*. London: Sage.

Sahlins, Marshall 1972: *Stone Age Economics*. Berlin: Walter de Gruyter & Co.

Shove, Elizabeth 2003: *Comfort, Cleanliness and Convenience*. Oxford: Berg.

Warde, Alan 2005: Consumption and Theories of Practice. *Journal of Consumer Culture*, 5: 2, 131–153.

Wenger, Etienne 1998: *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.

Whilhite, Harold 2005: Why Energy Needs Anthropology. *Anthropology Today*, 21: 3, 1–2.

Wilk, Richard n.d.: Culture and Energy Consumption. Online at http://indiana.academia.edu/RichardWilk/Papers/10894/Culture_and_Energy_Consumption.

Sarah Pink is professor of social sciences at Loughborough University (UK). She is author of a number of books, journal articles, and chapters focusing on ethnographic methodologies and the home. These include *Home Truths* (2004), *Doing Visual Ethnography* ([2001]2007) and *Doing Sensory Ethnography* (2009).
(S.Pink@lboro.ac.uk)

Ethnologia Europaea 41:1
E-journal © Museum Tusculanum Press 2012 :: ISBN 978 87 635 3938 8
www.mtp.hum.ku.dk/details.asp?eln=300309