Traces of Water Workshop Report 2:
Water practices and everyday life

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1. Introduction

This report summarises "Water Practices in Everyday Life", the second of a series of five workshops. The first workshop started to unpack assumptions about 'the water consumer'. Taking this forward, the core aim of the second workshop was to explore the concept of consumer 'practice' as an alternative to individual consumer choice. The aim was to examine the ways in which water consumption is embedded within the context of everyday practices. Ordinary water consuming practices – for example showering, laundering, gardening, are shaped by and require the active co-ordination of different meanings, conventions and technologies. Understanding such co-ordination requires a shift in focus from isolated decision making to a more sophisticated appreciation of how behaviours are routinised. Rather than considering how individual make choices the challenge is to examine the processes through which particular options are structured.

The workshop raised questions such as: What is the relationship between consumer behaviour, water consumer technologies and wider social patterns? How do the symbolic and material aspects of water technologies, the habits, practices and expectations of users and consumers, and the socio-technical systems, collective conventions and arrangements that make water consumption possible hang together? What does it mean to talk about consumption as a process of transformation and practice rather than the outcome of explicit choice?

The report outlines some of the limits of the 'consumer choice' perspective (section 2). It then describes the practice perspective and explains what such a perspective offers for understanding patterns of consumption (section 3). The paper then explores three examples which formed the basis of workshop presentations: gardening, showering, and laundering (section 4). Section 5 then

reports on issues emerging in workshop groups which considered ways of developing a practice perspective on dishwashing.

2. Conceptualising consumer choice

Demand management strategies routinely suppose that it is possible to shape the decisions that people make about the water they consume. Measures adopted in response include the development of information campaigns about the need to "use water wisely", as well as advice on how to do it, from installing retrofit cistern devices to turning the tap off when cleaning teeth. Other strategies involve pricing to encourage people to use less water. More extreme methods are banning the use of hose pipes during droughts. All seek to change the 'decisions' people make. These strategies do make a difference although the extent to which they are successful, and when, how and why they work, as well as what their impact actually is, remain matters for continued evaluation. .

Demand management strategies of this type suppose that people make decisions based on rational choice, that is, they weigh up the costs and benefits of different actions based on the information they have available. Following this logic it seems perfectly sensible that raising the price of water coupled with providing information about how to save it would be an effective strategy to reduce demand. A subsidiary logic is that people make decisions based on normative principles, that is, their decisions are influenced by what they think they ought to do or buy, what is seen as the right thing to do. Following this logic, strategies that appeal to concerns about protecting the environment, coupled with information about how to save water, also seem appropriate.

In a way both these assumptions seem like common sense, and indeed, they are dominant within contemporary culture. Many scholars writing about consumer culture share the view that consumption is a process through which people exercise individual choices, for example about style and identity. But to what extent do people actively make decisions about their water use in everyday life? Is it realistic to expect water to feature so explicitly in peoples' goals and aspirations? What constraints limit the very basis of those choices? And what difference might social-cultural variables make? It is these sorts of questions that an analysis of practice begins to address.

3. The entanglements of practices

It we start to think about our everyday activities, and what needs to be in place to enable them to happen, we soon find ourselves looking beyond our own capacity to decide and choose. Much of what we do in everyday life is routine. Such routines require a complex co-ordination of bodies, minds, technologies, and resources. In everyday life, these different elements come together and are regularly, if invisibly, co-ordinated as we go about our most basic tasks, from brushing teeth to watering a garden plant. Instead of understanding these practices in terms of a set of decisions – such as 'what is the cost in relation to benefit' or 'is this the best option for me' – social scientists have developed the concept of practice. A practice refers to a 'routinised type of behaviour' (Reckwitz 2002 p.249). Different practices involve different elements and/or different relationships between the elements.

The existence of a practice depends upon the specific interconnectedness of many elements:

- Forms of bodily activity
- Mental activity
- Things and their use
- Background knowledge in the form of understanding, know-how and notions of competence
- States of emotion and motivational knowledge

At the same time, elements and interconnections are reproduced through the practice (following Reckwitz 2002).

A number of implications follow from this practice perspective.

First of all, to understand how water is consumed in everyday life, we need to pay attention to the elements and relationships that are integrated in practice. This means understanding the skilful, often 'unconscious' co-ordination by individuals, the wider social, economic and cultural traditions which give rise to particular meanings and ways of doing things, and the various material and technological entities involved.

Second, practices are always entangled within other practices. Washing up, taking a shower, doing the laundry are often coordinated with other practices such as child-care, getting ready for work, preparing meals. When understanding why and how people do what they do, it is therefore important to think about how activities relate to what else is going on rather than seeing them in isolation.

Specific activities are often part of wider practices. For example, showering can also be a practice of washing, or gardening might be part of a more encompassing process of home care. We should therefore ask, how might similar practices be configured differently in specific settings? If we take the example of showering, and we understand it as a practice of washing, we can compare specific showering practices and other washing practices such as taking a bath or washing at the sink. However, showering might also be part of a wider leisure activity in which case it might be compared with other forms of relaxation or revitalisation.

The key point is that the consumption of water takes place as a consequence of accomplishing different types of practices rather than for its own sake. Indeed, as the title of this series describes, the measurement of water merely traces the complex of practices through which water is actually consumed.

4. Water Practices: showering, gardening, and laundering

The previous section provides an abstract account of the practice perspective. In this section we look at the examples of gardening, laundering and showering. Each example demonstrates different ways in which the practice perspective can be developed and applied.

Gardening

Water use in gardening offers interesting challenges for water companies and the Environment Agency. Garden water is one of the few areas where the use of particular technology – namely pressure jet hoses – means that a property must be metered. It is also one of the few areas where households in the UK appear reasonably willing to use water that has been collected from rainfall. Gardening is an area of uncertainty and change with respect to water consumption, for example we don't know what the effects of gardening trends might be, for example increased ownership of exotic plants, the trend towards decking, the impact of climate change, or the growth in building conservatories. Building on the argument developed above, we need to locate demand side management

methods based on 'cost-benefit' rationalities and 'injunctions' in relation to habits and meanings that characterise and constitute the practice of gardening.

Little social science work has looked specifically at water use in gardens, however, two Australian geographers provide a useful exception. Askew and McGuirk (2004) undertook a multi-method study involving both qualitative and quantitative data collection about water use in suburban gardens in Australia where outdoor water use accounts for as much as 50% of domestic demand. Drawing upon literature about the home and garden as sites of consumption, they write about how gardening relates to accumulation of 'cultural capital'. By 'cultural capital' they mean the resources required to make judgments about and engage in particular cultural practices. Cultural capital is distinct from social capital (referring to social connections) and economic capital (that is wealth). While economic and social capital often structure opportunities individuals have to participate in particular practices, the accumulation of cultural capital can form the basis of both 'social distinction' and 'social conformity'.

Askew and McGuire explore the relation between cultural capital and the development of particular meanings that shape water intensive practices of gardening. In this context water becomes 'a tool with which to attain this cultural capital and is a symbol through which to display cultural capital' (p.22). In their interviews they found that water conservation figured low when compared to entertaining, safety and leisure. Indeed, their survey found that people who were most concerned to minimise water use were in fact the highest water users. They also found that people would discuss water conservation in relation to national debates and native plants, but in a way that was disconnected from their own practices or from the water implications of designing hard surfaces, lawns and minimal plant beds. Interestingly they also found widespread usage of water minimising technologies. The authors argue this is not so much about individual desires to save water but instead reflected a process whereby people would accumulate cultural capital through expressing their knowledge of gardening techniques, including 'dry' or appropriate gardening.

The implication of Askew and McGuire's study is that we need to understand gardening practices in relation to the attainment of cultural capital. This can work in two directions. On the one hand, gardening can be an expression of distinction, of being different, of individualism. And on the other hand it can be an expression of conformity. Standards of 'conformity' and respectability played a significant role in increased water use in relation to general maintenance of gardens and outdoor areas. Askew and McGuire postulate that potentially, in relation to water conservation, conformity could have a useful role to play in interacting with garden practices, for example, in relation to the acceptance of rainwater tanks.

Interviewees quoted by Askew and McGuire (2004):

"We think our biggest asset now is our outside living area … in the summertime it is good because we can have a barbeque and keep out of the sun" (p.25).

"We try to keep it low maintenance … user-friendly sort of, you know, so that out the back there's plenty of grass' (p.26).

"I think there should be fines imposed on people that don't maintain their yard … it detracts from the beauty of your place" (p32).

"And that's what's good about a place where the blocks of land are expensive to start with, you'll get the sort of person … that will obviously build a pretty good house … and then hopefully they'll keep it looking nice" (p.32).

Summary
The study presented here develops a practice oriented approach to gardening and focuses specifically on the role that gardening practices play in the expression of cultural capital, in terms of both distinction and conformity. A further elaboration of a practice perspective of gardening would examine the role of technologies, as well as plants, in shaping the constraints and possibilities for different gardening practices and the interaction with meanings of gardening and associated forms of know-how and routine.

In the workshop, Russell Hitching's (University College London) presentation on 'Organising domestic gardens and implications for water use' set the scene by noting current gardening trends (e.g. increased time spent in gardens, increased money spent on gardening, and smaller gardens with new-build houses). Russell highlighted the importance of taking into account the contexts of current gardening practices if we are to understand the implications for water use. Looking at garden centres as well as different types of gardens revealed the different ways in which gardening takes place and is shaped. Russell concluded by noting tensions between different and competing gardening values (for example aesthetics versus the environment) and between gardening as relaxation and as work. He also talked about the need to understand the different times and places where attempts to change gardening practices might take place, for example garden centres, plants providers etc..

The full presentation is available at:
http://www.lec.lancs.ac.uk/cswm/dwcworkshop2.htm

Showering
Taking a shower instead of a bath is often promoted as an important way to save water. The effectiveness of such strategies is increasingly in question. First, as showering technology has developed, many showers, and especially power showers, use much more water than their predecessors. Second, showering on a daily basis has become much more of a norm, rather than, for example, the weekly bath or even public bath. Put together, showering now threatens to increase water demand in relation to personal hygiene. How might the practice perspective help understand the popularity of daily or twice daily showering? Can it give us insight as to where the habit of showering has come from and how it is has been transformed? How has showering become such a normal practice? What elements are brought together in the practice of showering?

In their paper "Explaining Daily Showering" Hand et al (2003) identify three sets of elements that co-evolve in relation to each other to form the practice of showering as we know it today. First, they identify the importance of innovations in plumbing, heating and power that have enabled the movement of showering from communal bathing houses to individual homes. In the UK domestic plumbing was introduced in the 1930s for middle class homes, and 1950s for working class homes. Point-source water heaters were widely available from the 1940s, but it was not until the 1970s and the development of electric mounted shower units, that the practice of showering truly emerged as a significant domestic practice. Since the 1980s technological developments include shower cubicles, and more recently power showers and more elaborate variations. Second, and in addition to these technological innovations, Hand et al describe changes in expectations and values of the body and self. Socio-cultural historians have shown how concepts of the body move through different regimes. The notion of 'care of the self' is inherited from the Greco-Roman notion of the whole body as an entity that needs regeneration and care. The move to 'clean bodies', is associated with the 19th Century. Here the body becomes a site of disease, requiring protection and intervention, and a site on which to mark distinctions

defining social classes, civil society and even nationhood. More recently the body has recently become a focus for multiple representations of individual cleanliness, freshness and fitness. Showering now takes on multiple roles, from cleansing to relaxing to a performing a wake-up call. The third set of elements identified by Hand et al concern temporal organisation and the routines of everyday life. Showering, in contrast to bathing, tends to be associated with speed and convenience. Showering can be squeezed into a shorter time-frame than taking a bath and is valued for this reason too.

Bringing together these three accounts – of technology, concepts of the body, and everyday routine – Hand et al argue that to understand their integration we need to move from a focus on 'the shower' to the process of 'showering' as a practice. Showering is not defined by technologies, conceptions of the body or convenience alone. Showering as a practice is actively constituted by a specific arrangement of materials (the technology and infrastructure), conventions (of the body) and routines (temporality). These are brought together through 'know how', competence and ways of doing 'showering' as we know it. In other words, to understand showering, and changes in showering, we need to look beyond individual components or elements and consider the emergent arrangement as a whole.

Hand et al note three implications. First, understanding the quantities of water used in showering requires an analysis of how the practice of showering has become defined and conceptualised through technologies, conventions and routines. Second, changes in showering technology work in so far as they link in with how the practice is or can be (re)configured. Third, this requires understanding the interaction and 'lock-in', or path-dependency, of material, cultural and social dynamics. Finally, the practice of shower is clearly contingent, it has an open future.

Summary
Hand et al provide a practice oriented approach to showering that focuses on the interdependencies between materials, conventions and routines. Though daily domestic showering has become a taken for granted norm it is a very recent development. The practice perspective suggests the need to develop further sets of questions about types of showering practice and how these vary across different social groups.

In her presentation, 'Bathrooms as context for daily water practices' Maj-Britt Quitzau (National Environmental Research Institute of Denmark) noted while there had been an overall decrease in Danish domestic water consumption in recent years, there had been little radical change to everyday practices which raises concern about trends for the future. For example was the decrease only due to fixing problems of leakage or was the reduction 'real'? Maj-Britt then presented insights from her research on bathroom routines, highlighting different uses of the bathroom – as a ritual, a relaxing treat, as playtime. Maj-Britt argued that if we want to understand the drivers of change, we need to think about the implications of shifting notions of convention, changing everyday conditions, the symbolic status of practices and the implications of new economic and technological possibilities.

The full presentation is available at:
http://www.lec.lancs.ac.uk/cswm/dwcworkshop2.htm

Laundering
The practices of laundry pose another set of challenges for water resource management. Though the washing machine was conceived of as a labour saving

device, it appears we are doing more washing than ever before. The saturation of washing machines (92% ownership in the UK) demonstrates the normality of doing clothes washing within domestic space. Of course this hasn't always been the case and as with showering, the practice of laundry needs to be situated within a historical context of the meanings of 'cleanliness', the routine work of doing the laundry, and the co-ordination and synchronisation of multiple socio-technical systems (Shove 2003 p.80). How can a practice perspective help explain the rise in the frequency and quantity of clothes washing?

Shove (2003) situates the practice of laundry within a broader analysis of comfort, cleanliness and convenience. The practice of laundry has some specific characteristics. First, it involves work that can be divided and delegated in different ways. Second, this work is typically women's work and often associated with notions of domestic performance. Third, laundry requires sequential steps from sorting out the clothes, to washing, to drying. The type of steps and what is involved has varied historically for different laundering technologies require different processes. Finally, rather than explain laundry in terms of achieving cleanliness, Shove argues that the manner in which laundry is organized has consequence for definitions of cleanliness and the skills and judgements involved in achieving it (p.121).

In her analysis of laundering as a practice Shove identifies different reasons for washing clothes, including the sensation of wearing clean clothes, social values of cleanliness, disinfection, deodorisation, as well as habit. Compared with the 1750s clothing is no longer expected to require washing because of its role as a cleansing agent for the body. Instead 'laundry is about decontaminating clothes that have been in contact with the body and restoring valued attributes of style, feel and image" (p.126). Similarly what is washed has evolved such that the laundry basket now includes different types of fabrics requiring different types of wash. The frequency of laundering also has various different justifications. Pulling all this together, 'one consequence is that washing machines, in association with an array of specially formulated detergents and conditioners, have acquired a pivotal role in specifying the meaning of appropriately laundered clothing' (p.133). That said, people reformulate and develop their own ways of interpreting machines through their own routines, for example putting clothes together in particular ways and running particular programmes.

By understanding laundry as a system of systems, Shove's analysis points to the ways in which "change is engendered by the circulation and mutual adjustment of ideas and practices" (p.135). As with other practices the relationship between the technological, symbolic and routine co-evolve in different ways. Shove argues that "the meanings of washing will change as a result of interaction between the various elements and components involved (for example fabrics, washing machines, detergents, reasons for washing, stocks of clothing and so forth)" (p.118). In other words, the practice of laundering involves the co-production of 'those who do the washing, their values and ambitions, the conventions and standards of the day and the tools and technologies they use" (p.118).

"Strategies for washing 'normal' items vary. Stocks of everyday clothing are often such that it is possible to defer the laundry for quite a time. Even if one pair of jeans is dirty there is likely to be another in the cupboard. But this is not quite how it works. Within the range available to them, people have favourite garments, things they like to wear all the time and which are therefore always in the wash. The tendency to distinguish between favourite clothes and others that are worn for short periods and washed after every use has the overall effect of increasing the throughput of laundry. Specialization also creates new pressures

of laundry-related timing with the result that people who own lots of clothing may still find themselves with nothing (suitable) to wear" (Shove 2003 p.130)

While washing machine are increasingly designed to use less water and energy the trends in laundering suggests increased frequency of clothes washing. For example, recent estimates suggest that American households wash 1,332kg of laundry a year (392 loads of 3.4 kg), nearly three times as the amount record in 1950 (156 loads of 3.6 kg). In the UK the estimates are that households run their machines on average 274 times with loads of 2kg. It appears that 'what used to be a weekly pattern has become a never ending spiral of refreshing and revitalising a steady stream of discarded clothing' (p.131).

Summary
Shove's analysis situates laundering within the context of shifting historical meanings of comfort, convenience and cleanliness. The practice of laundry has co-evolved through the interaction and co-production of different meanings, technologies and routines. Further development of the practice perspective would involve the elaboration of meanings and routines in relation to different social groups and the impact of changing washing machine technologies.

Elizabeth Shove (Lancaster University) made a presentation on 'Laundering as a Systems of systems'. Within the context of trends towards increased cycles of washing machines, Elizabeth emphasised the importance of understanding how things come to be normal. Important questions including why wash, what is washed, when is washing done, how to wash and with what tools? Answering these basic questions requires understanding the interaction between the materials of washing, the symbolic status of washing and the routine practices of washing. Developing this argument Elizabeth suggested laundering and associated patterns of water consumption I shaped by the outcome of changing routines and conventions of ordinary consumption.

The full presentation is available at:
http://www.lec.lancs.ac.uk/cswm/dwcworkshop2.htm

5. Applying the practice perspective to dishwashing
Following presentations on gardening, showering and laundering, workshop participants formed small groups to explore how the practice perspective could be applied to dishwashing. More specifically we asked, what do we need to know to anticipate water demand in relation to dishwashing practices?

Background information informed the discussion. Herrington's report on "Climate change and the demand for water" published by the Department of the Environment in 1996 quotes data from 1991 that suggested new dishwashers were using an average of 27 litres per standard cycle. No reduction in this figure was anticipated. Herrington's report predicted that dishwasher ownership would be approximately 50% of households by 2021 (see table below)

	% Ownership	Frequency of use per household	Litres per cycle
1976	4	6/week	60
1991	20	6/week	45
2001	30	6/week	30
2011	40	6/week	27
2021	50	6/week	27

(from Herrington 1996 p.148)

More recently, however, the DEFRA Market Transformations Programme (www.mtprog.com) suggest the average consumption for a dishwasher is now typically less than 20 litres, and often less than 15 litres. Average water usage for washing up is estimated at 63 litres in the UK, implying dishwashers save "least three times more water" than manual washing.

The Market Transformation Programme estimates that UK ownership of dishwashers is around 27%. By contrast, according to market research contracted by the retailer Dixons ('*Chained to the Sink*', 10th December 2002)[1], household ownership across different counties varies as follows:

Austria	63%
Switzerland	59%
Germany	56%
Sweden	54%
France	44%
Netherlands	34%
Italy	31%
Greece	27%
Spain	23%
UK	20%
Turkey	18%
Czech republic	6%

Some immediate and general questions emerged in the discussions:

- Why is there is an apparent mismatch between the measurement of dishwasher water usage and popular perception?
- What diversity of ideas are there about "normal" dishwashing practices?
- What social, economic, cultural and political factors might explain different market penetration of dishwashers across different counties? What is different about those countries with high market penetration of dishwashers? What variability is there in dishwashing practices within those countries as well as between them?
- Would greater household uptake of dishwashers lead to less variability in dishwashing related water consumption (as implied in Herrington's work)?

More specific questions, using the practice approach, were also developed:

- **Routines and other practices**: what impact might changing patterns or eating have, such as eating out, eating pre-prepared food or entertainment? How might people be resistant to changing their dishwashing routines? How do dishwashers alter our practices (e.g. washing teapots, or washing cups more often)?
- **Materials**: how might the aesthetics of kitchen design play a part, for example moves to open plan living? What variations are there in what is put in dishwashers (example of salmon and glass for recycling were noted!)?

[1] http://dsgportal01.dixons.co.uk/wps/portal/!ut/p/_s.7_0_A/7_0_IQ/.cmd/ad/.c/6_3_1F3/.ce/7_1_25E/.p/5_1_1C5?PC_7_1_25E_contentID=1000

- **Images**: what is the significance of cultural perceptions of cleanliness in relation to dishwashing? Is there, for example, a trend to hide dirt in the kitchen and value tidyness?
- **Economic factors**: how do the cost of dishwashers affect different groups in different ways?

Summary
There is uncertainty about whether trends in dish washing will reduce or increase water consumption, and indeed, how stable such trends will be. Focusing attention on dishwashing alone gives little sense of what happens in practice. The practice perspective offers an approach which situates the role of the dishwasher within a wider context. Essentially, anticipating future water demand requires better understanding of the relationship between the routines, technology and images.

6. Conclusions

A number of new questions emerged during the workshop:

Understanding practices: What 'elements' come together for different water consuming practices, for example brushing teeth, dishwashing, car washing etc.? What conventions exist for these practices? How are they embedded within different types of routine? What are the similarities and differences between different types of water consuming practices? Which practices are more or less on the move? Are some practices more resistant to change than others? Are there proxy measures for changing practices? Where do we look to understand practices? The moment of acquisition, of use? The home, media, shopping outlets? How are different and competing ethics, or notions of success, mediated in practices? What can the practice perspective reveal about differences between social groups (ethnicity, social class, age etc.)?

Understanding change: How do practices change – do they creep? Do they change suddenly? Do they need disruption? How committed are people to particular practices? Why? How can we identify moments of change? Do we need to make practices visible in order to change them? How can change be shaped? Is there are role for information and pricing? What happens to information and pricing in a practice perspective? Is the challenge for the water sector to raise the visibility of water as a resource or to look elsewhere, (for example to water consuming practices)?

The practice perspective enables us to explore the interaction between images, materials and routines. It also enables us to think about the role played by different industries, the media etc. in constructing and reproducing convention. To understand domestic water consumption, in other words, we need to move from an emphasis on choice and decision making towards understanding the interplay between very different 'systems of systems' through which everyday routines become normalised. Finally, if we want to understand and shape change we need to develop more sophisticated ways of thinking about the constitution of consumer demand. Most significantly this means looking at the different places and moments where change can occur.

The next two workshops pick up on these themes. Workshop 3 (November '05) looks more specifically at the role of infrastructural dynamics in shaping water practices and workshop 4 examines the ways in which water stress can prompt change (February '06):

Workshop 3	Shaping water practices by infrastructure	10th November '05
Workshop 4	Water stresses disrupting the consumer	9th February '06
Workshop 5	Imagining the future	6th April '06

Please see the *Traces of Water* Website for further details:
http://www.lec.lancs.ac.uk/cswm/dwcworkshops.htm

7. References

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See also the DEFRA Market Transformations Programme (www.mtprog.com) for see various briefing paper on 'wet appliances'