

ENERGY IN THE CITY

A Summer School on Energy Demand and Mobility

18-20 July 2017, University of Leeds

Programme

Tuesday 18 July: Institute for Transport Studies, University of Leeds	
12:00-13:00	Lunch
13:00-14:00	Welcome: Greg Marsden <i>Introductions</i>
<i>Theme 1: Infrastructures and Flows</i>	
14:00-15:00	Matt Watson Infrastructuration: The co-constitution of urban infrastructures and practices Eleonora Morganti The urban food system
15:00-15:15	Break
15:15-16:30	Workshop <i>Small groups will discuss the reading pack and their own projects, and position themselves and the readings in relation to each other.</i>
16:30-17:30	Floorball (with time for check-in after floorball)
18:00-19:15	Elizabeth Shove Infrastructures and practices: connections, disjunctions and dynamics
19:15-21:30	Drinks reception & dinner

Wednesday 19 July: Institute for Transport Studies	
<i>Theme 2: Localising and Locating Demand</i>	
09:15-10:15	John Barrett Energy demand of consumption in cities Rachael Unsworth City roots, connections, fuels and flows: infrastructure in time & space
10:15-10:30	Break
10:30-11:45	Workshop <i>Participants move around a carousel of method-related puzzles and discuss them with one another</i>
11:45-12:30	Fieldwork Introduction
12:30-13:15	Lunch
13:15-17:45	Fieldwork <i>We will go into Leeds and work in small groups, later reconvening at The Tetley in Leeds centre, where each group will produce an exhibit for the next day.</i>
18:00-19:00	Tom Knowland , Head of Sustainable Energy & Climate Change, Leeds City Council Climate Change Planning in Leeds
19:00-21:30	Dinner <i>At The Tetley</i>

Thursday 20 July: Institute for Transport Studies	
<i>Theme 3: Case Studies</i>	
09:15-10:15	<p>Ian Jones Browsing, purchasing and delivery: what is in and what is out of the shopping infrastructure cart?</p> <p>Noel Cass Beyond the office: the futures of work spaces</p>
10:15-10:30	Break
10:30-12:30	<p>Workshop <i>Groups will explore key insights and ideas from the fieldwork posters. Building on this, they will develop a proposal for a small research project to be undertaken for Leeds City Council.</i></p>
12:30-12:45	Connections, reflections and wrap-up
THURSDAY AFTERNOON: A light lunch will be provided. Depart for overnight trip.	

ABSTRACTS

Matt Watson, DEMAND Centre and Department of Geography, University of Sheffield

Infrastructuration: The co-constitution of urban infrastructures and practices

It is clear that changing infrastructures of resource provision matter for the dynamics of everyday practices. Despite the burgeoning literature on cities and infrastructure, the detail of exactly how infrastructures relate to changes in everyday urban geographies and lives is as yet under-explored. From this perspective, homes represent material nodes for the convergence of multiple infrastructures, as well as being sites in which systems of provision are continuously brought together in the accomplishment of practices such as cooking, cleaning, or watching TV. These practices in turn constitute demand for resources, and so for the infrastructures that provide them, meaning that the work of daily life is part of the work involved in the production and reproduction of infrastructures. So how do practices shape and how do they get shaped by plural and co-existing infrastructural innovations? In this paper, through exploring the interweaving and co-evolution of urban living and multiple infrastructures and systems of provision, I introduce the concept of 'infrastructuration'. In bringing an infrastructural dimension to Giddens' notion of structuration, we provide a means of accounting for how household practices and infrastructures are productive of each other, and of urban realities.

Eleonora Morganti, Institute for Transport Studies, University of Leeds

The urban food supply system

Food issues are no longer only rural and agricultural issues. The progress of processing, refrigeration and transportation technology together with cheap and abundant energy resulted in a complex and fragmented way to provision food to city dwellers. As a consequence, the urban food supply system is inextricably linked to other community systems, including transport, land use, and waste management. This talk helps to comprehend the basic food flows occurring within (and beyond) modern cities and to identify the energy demand of the food distribution sector, which has to meet the increasing needs expressed by urban demand. The debate will be at the intersection of two broad bodies of literature: the discussion on sustainable food systems and the studies on city logistics and urban freight transport systems. Food waste and food recovery initiatives, online food shopping and final deliveries will be among the topics to be explored.

Elizabeth Shove, Co-director of DEMAND Centre, Sociology department, Lancaster University

Infrastructures and practices: connections, disjunctions and dynamics

This speculative talk explores a series of questions arising from an interest in the relationship between infrastructures and complexes of social practice. In thinking about how infrastructures-and-practices change over time, how they interact in specific locations and circulate between them, and how forms of interdependence take hold I am interested in thinking about processes that are important in social theories of practice but not yet firmly on the agenda in science and technology studies. These include forms of 'layering', 'obduracy', 'anchoring', 'de-tethering' and 'interweaving' and 'hybridisation'. I will make use of a collection of different examples –road infrastructures, digital networks, office buildings, power cuts and home IT – in support of an exercise in interdisciplinary agenda setting.

John Barrett, Director of the Centre for Industrial Energy, Materials and Products (CIE-MAP), University of Leeds

Energy demand of consumption in cities

The energy demand of households goes beyond issues such as heat, power and fuel for transportation. Indirectly, UK households drive energy consumption through all items of expenditure, including leisure activities, products, maintenance and food. The indirect energy demand of households is responsibility for the majority of UK household energy use. This presentation provides an analysis of the "complete" energy demand of consumption providing a broader assessment of energy service demands. I consider the key drivers for the variation in energy demand within UK households and introduce a framework to consider points of intervention to reduce energy demand. Finally, I explore how our energy demand is spatially distributed using an example of London.

Rachael Unsworth, Geographer at Large

City roots, connections, fuels and flows: infrastructure in time & space

Leeds is typical of city development: policy and practice have moved us away from high throughput of materials and energy with the associated waste and pollution towards a more sustainable use of resources. But Leeds also has its specific history and challenges. What have been the main elements of change? How far have they gone? What are the barriers to change? Where are the main future opportunities?

Ian Jones, DEMAND Centre and Institute for Transport Studies, University of Leeds

Browsing, purchasing and delivery: what is in and what is out of the shopping infrastructure cart?

If one was to place all shopping-related infrastructure into a metaphorical shopping cart (including the cart), what might one find? The relatively obdurate retail spatial configuration observed in a city's multiple buildings, laneways, under and above ground storage and delivery bays constitutes a small part of contemporary shopping. Historically, one could circumscribe a relatively small boundary between local farmer and artisan, store and delivery cart. Today, knowing what goes into the infrastructure shopping cart is more challenging. Shopping activities like browsing, purchasing and delivery rely on an ever increasing layering and interweaving of infrastructures which is both old and new, easily observed as well as often hidden, and is being continually re-configured by different users—which collectively blur the boundary between retailer, logistic provider and customer. A mobile device becomes a store's register, click-and-collect in turn result in customers engaging in deliveries. This talk problematizes understandings of shopping, showing that the units of analysis through which we understand energy demand in the city are themselves on the move, and prompts further reflections on the findings from the fieldwork.

Noel Cass, DEMAND Centre and Sociology department, Lancaster University

Beyond the office: the futures of work spaces

Traditionally the 'paper office' was an infrastructural space designed for paper processing - writing, copying and storing. The 'PC office' reconfigured this space with less need for physical storage space, but added heat generating equipment and services to cool. Now office spaces themselves are changing to facilitate mobile work on more efficient devices with wireless communication and storage, but work itself is de-tethering from the spaces and times of 'the office'. These changes in work practices and the devices and appliances used have implications: for workspaces within and beyond the office; for the physical and digital infrastructures that enable the networked organisation and the distributed office to function; and for the broader urban spaces of everywhere-networked, always on, 24/7 cities. This talk thinks through how changes in practice and technologies play out through infrastructures and spaces, and prompts further reflections on the findings from the fieldwork.

Dr Tom Knowland, Head of Sustainable Energy & Climate Change, Leeds City Council

Tom joined Leeds in 2002 to establish the Council's Environment Unit after previous posts with Oxford City Council, Cherwell District Council and sustainable development specialists, CAG consultants. Tom is a full member and also served two years on the Council of the Institute of Environmental Management and Assessment. He is a Chartered Environmentalist and Fellow of the RSA and is currently seconded to Leeds Beckett University as a visiting researcher.

Tom's role is concerned with achieving sustainable development, which in Leeds effectively means achieving the Council's corporate priorities for economic, social and environmental improvement, but all at the same time rather than at the expense of each other. A significant priority in the city is attracting investment for low carbon energy infrastructure to address fuel poverty, increase competitiveness and increase resource efficiency.