Cycling: methods, ideas, initiatives, facts and figures

We will use this selection of material to inform one of the working party sessions. In putting these notes together I've simply raided a selection of articles and documents. I have included a few other references as well (thanks to Dave Horton and Mikko Jalas). The idea is that this material will help us think about changing patterns of cycling, and about how the practice evolves. Some of the material provides a 'trace' or record of past cycling practices, other snippets give a glimpse of current policy and of what is happening in Lancaster – one of a number of 'cycling cities'.

Recruitment

"From 1890s to the 1930s walking to work was the most common experience, with more than 40% of those in employment walking to work before 1920".. bicycle use increased rapidly from about 1910. (Pooley and Turnbull 2000: 14)

"Use of the bicycle to travel to work between about 1920 and 1950 was particularly notable in smaller settlements,with commuting by bicycle the single most important means of travelling to work in such towns in the 1940s." (Pooley and Turnbull 2000: 14)

http://cyclingview.files.wordpress.com/2008/01/kilcock-1940-small.jpg

During the 1930s and 1940s, approximately one fifth of men cycled to work, and around one tenth of women. ... (Pooley and Turnbull 2000: 19)

Table 3
Main mode of transport for journeys to work in Britain since 1890 (%)[a]

Decade	Transport mode							
	Walking	Bicycle	Tram/trolley bus	Bus	Train		Motor cycle	Car/van
					Overground	Underground		
1890–99	59.4	2.0	16.8	5.0	9.8	5.0	0.0	0.0
1900–09	49.4	11.2	11.6	14.6	10.2	0.4	0.0	1.1
1910–19	40.6	13.3	16.0	9.9	15.4	1.9	0.6	1.9
1920–29	28.5	17.5	10.6	15.3	17.8	2.3	3.9	5.2
1930–39	22.5	19.1	9.7	13.8	18.4	4.1	2.3	9.1
1940–49	17.2	19.6	6.7	23.0	18.3	5.4	2.2	6.0
1950–59	13.4	16.0	2.5	23.3	18.9	4.4	3.0	16.3
1960–69	14.0	5.2	0.2	18.8	16.2	5.3	2.6	35.8
1970–79	13.4	4.5	0.1	15.8	13.2	5.5	1.9	44.5
1980–89	10.3	6.1	0.0	11.7	15.4	5.4	1.8	48.5
1990–98	7.9	6.1	0.2	10.1	17.2	4.5	0.6	52.8
Sample size	2083	1379	466	2073	2002	564	264	3108

[a] *Source*: Details of 12,439 journeys to work taken from 1834 individual life histories. Statistics are calculated for the decade in which a particular journey to work started.

Defection
"From the 1950s cycling rapidly declined in popularity." (Pooley and Turnbull 2000: 19)

Variation
Patterns of cycling are not at all the same in different **countries**
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Percent of Trips by Travel Mode (all trip purposes)					
Country	bicycle	walking	public transit	car	other
Netherlands	30	18	5	45	2
Denmark	20	21	14	42	3
Germany	12	22	16	49	1
Switzerland	10	29	20	38	1
Sweden	10	39	11	36	4
Austria	9	31	13	39	8
England/Wales	8	12	14	62	4
France	5	30	12	47	6
Italy	5	28	16	42	9
Canada	1	10	14	74	1
United States	1	9	3	84	3
Source: John Pucher, Transportation Quarterly, 98-1 (from various transport ministries and depts., latest avail. year)					

http://www.ibike.org/library/statistics.htm

"It is no coincidence that bicycle use is so much developed in the Netherlands, where more than 16% of the total road network is devoted to bicycle paths. National policy plays an important role: the Netherlands was the first country to implement an official national bicycle policy. In order to face the oil crisis in 1975, the Dutch Ministry of Transport and Public Works implemented a policy in favour of the use of the bicycle in the form of National Bicycle Tracks Grant Act. It introduced a fund for the construction of urban and rural bicycle facilities. In ten years, 500 million guilders (227 million euros) have been provided as subsidies to most of the Dutch municipalities. (Rietveld and Daniel 2004: 536).

Within countries there are differences between **cities**

Bicycle mode split by city:	
Paris, Marseille, Lyon, Toulon, Metz and Reims, France	less than 2 percent
Rennes, Bordeaux, Toulouse and Nantes, France	2-5 percent
Grenoble, Lille, Orleans, and Valence	5-10 percent
Strasboug, France	15 percent
Copenhagen, Denmark & Basel, Switzerland	20 percent
New Dehli	22 percent
Moscow, Russia	24 percent
Tokyo, Japan and Odense, Denmark	25 percent
Erlangen, Germany	26 percent
Dhaka, Bangladesh	40 percent
Beijing, China	48 percent
Groningen, Netherlands	50 percent
Shenyang, China	65 percent
Tianjin, China	77 percent

Notice diverse conjunctions that 'work': differences between Dhaka and Amsterdam, both on the 40% scale.

Population density: "The use of the bicycle is low in low-density areas, as in such areas there might be fewer opportunities to make short trips. Then it reaches a maximum in medium density areas, and falls again, as might be expected, in high density areas, where public transport is well provided so that it is a competitor to the bicycle"(Rietveld and Daniel 2004: 536)

UK 2001

City	2001 census % cycling to work	Mode share %
Cambridge	28	18
York	13	10
Shrewsbury	6	3
Bristol	5	3
Lancaster, Exeter, Derby, Colchester	4ish	4ish

From Cycling England.

Rates of change

City	From-to	End mode share	Average annual increase in cycling flows
Vienna	1996-2002	4.5%	+ 6.4%
Munich	1980-2002	13%	+5.5%
Zurich	1981-2001	11%	+2.3%
Delft	1979-1985	40%	+1.2%

http://www.dft.gov.uk/cyclingengland/site/wp-content/uploads/2009/11/as-report-nov-2009.pdf

"In Denmark the growth curve for cycling has been striking as the city installed bikeways and made driving in the city less convenient. In the early 1970s, according to a city report, motorists outnumbered cyclists during morning peak hours by about three to one. By 2003 the lines diverged and cyclists now outnumber motorists" (Mapes 2009: 81)

http://f00.inventorspot.com/images/Peoples_Republic_Of_Cycle.img_assist_custom.jpg

From walking to cycling – can be viewed as 'recruitment' to a practice of cycling (leisure and commuting)
From cycling to not cycling – can be viewed as 'defection' from the practice of cycling; but in relation to what rival or competing practices?

Elements of cycling

"From a policy perspective, it is not so clear what policy makers can do to promote these transport modes. Is it sufficient to provide footpaths and bicycle lanes? Or are more stringent policies needed, implying the discouragement of using competing modes?" (Rietveld and Daniel 2004: 532)

Roads/paths – hills; red paint on the roads, traffic lights (set in Denmark, to allow cyclists to keep going at 12km/hour).

The bike itself

Design, portability, made to carry passengers or luggage, made to go fast, made for safety. Size, trailers, folding. (Bijker 1997). See also Cox on 'the role of cycle sport in stifling innovation' – in terms of seating position, design and more.

"At the cutting edge of utility cycle design and promotion Shimano Europe have concluded that new riders creating a modal traffic shift "will demand better products and solution, changing the mobility industries dramatically, both what they offer and how it's developed" (Cox 2006: 4 quoting from van Vliet 2005)

"the forms appropriate for sports use are not those best suited for general purpose transport use. The mundane realities of everyday use require integral luggage carrying capacity, mechanical reliability and durability and, in most situations, the provision of adequate lighting and mudguards as a minimum. If the cycle is already burdened with an image as a second class means of urban mobility, then the hegemony of cycle sport means that designs departing from the norm are oft regarded as second class bicycles. Cycles purposely designed for transport risk being doubly marginalised by the dominant claims of sporting images as the 'ultimate'. (Cox 2006: 5)

In the UK at least, the cycle retail business is still largely dominated by its history of independently owned business, rather than large multiples or franchises. Independent retailers build trade discounts through loyalty to particular suppliers and gain discount according to volume sold. With relatively low margins in the business there is little financial incentive to stock non mainline products. (Cox 2006: 8)

Related stuff

http://www.freshtrend.com/wp-content/uploads/2009/05/designer-bike-helmets1.jpg

http://limitedhype.com/wp-content/uploads/2009/02/beetle-cyde-

http://www.talk2myshirt.com/blog/wp-content/uploads/2009/05/illuminated-jacket.jpg

Lights, batteries, bags, helmets (safety and numbers of cyclists – public policy and fear see Dave Horton's chapter in (Horton, Rosen et al. 2007), clothing, reflective vests, gloves, all different bits not welded together as in car.

http://thecityfix.com/files/2009/10/bikerack_georgetown.jpg

Places for storage and keeping, locking and unlocking. Issues of personal and collective property: rental and owning.

Cycling – meaning and image

From speed to safety (Bijker 1997), men and women. Numbers and thresholds of being ordinary – consider network effects also in relation to cars. Is it odd, is it normal: for whom? Also notice caring relationships with the machine itself.

You grow fond of bikes when you ride them and fix them … Little by little you get used to the vehicle, and the character of the bikes gets into your backbone and the posture on the bike is perfected. I for my self would not sell a good bike. You of course keep them inside and not in the common basement [of apartment houses] and especially not out in the mercy of the weather. In the home you can wonder them like pieces of art. On a ride the bike is like a silent companion. Of all the things I own, bike is really the most important and useful. (translated by the author).

'I was once in shop when it started to rain heavily. Then I came to think that the bike is out there in the rain. No choices but to go out and bicycle rather than staying inside and waiting for it to stop. You don't leave your mate to soak outside. If necessary, we'll both be there' (translated by the author)

'These are such personal matters. I cannot tolerate any mal-functioning in my bike. A solid bike makes no noises. I couldn't stand to ride a bike that tinkles and rattles. Or a bike that has a diverted pedals or jumping chains, or gears that do not work immediately. Or with offset rims, or spokes needing alignment, or flat tires. Or dirty cable and gears. And yet previously I did not recognize these as faults. But then I had not bicycled any further than the swimming stadium.' (translation by the author) Mikko Jalas 2009, 'Boats and Bikes' working paper.

Competence: in riding, in clothing, in traffic, fixing punctures, expertise in cycle shops. Physical ability. Sweat: showers; well being, exercise, bikes in gyms that go nowhere.

References on the experience of cycling:

LeBlanc, R. M. (1999). Bicycle Citizens: The Political World of the Japanese Housewife. Berkeley, CA., University of California Press.

Jones, P. (2005). "Performing the city: a body and a bicycle take on Birmingham, UK." Social and Cultural Geography 6(6): 813-830.

This paper brings the debate on sustainable transport policy into direct confrontation with the embodied practice of cycling in a highly urbanized environment. Using the example of a regular journey to work the author undertook in Birmingham, UK during the summer of 2003, Lees' notion of a more performative approach to understanding architecture is extended to a performance of the wider city. Tracing in detail the practice of this journey, the paper uses the notion of affect to highlight the sheer physicality of the bike ride and how the city is thus remade through the cyclist's experiences. This performative understanding is contrasted with more traditional understandings of the city, illustrating how the two

reinforce each other. Ultimately the question is posed of whether the thrills and chills of urban cycling in the UK will leave it as a marginalized transport mode for the foreseeable future, despite noises from policy makers about using cycling to solve problems of urban congestion and sustainability.

Complexes of practice
Cycling, cars and patterns of mobility – distances to 'work' new possibilities and options (commuting by car); also interfaces between different methods of getting around, bike racks at stations.

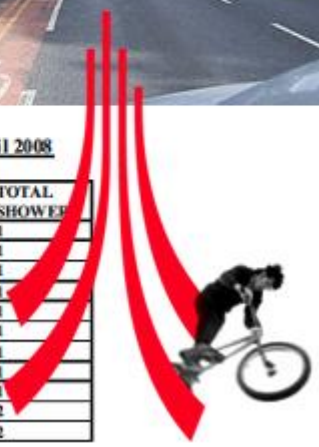
Policy interventions and measurement of success, counting movements.
Motivational and risk factors: time, physical needs and comfort, safety, risk of theft, cost of using a bike, personal security.

"The reasons respondents gave for either cycling or not cycling to work remained almost constant from the 1930s to the present, though those who began work more recently were more likely to show an awareness of environmental considerations. The main perceived advantages of cycling, in all time periods, were low cost, relative speed (especially the ability to undertake complex cross-town journeys quickly, to cut through standing traffic and avoid waiting for public transport), flexibility and the enjoyment of exercise." (Pooley and Turnbull 2000: 18)

Lancaster, cycling city

Lancaster University Non-Residential Showering Facilities – April 2008

LOCATION	MALE	FEMALE	UNISEX	TOTAL SHOWER
Biology Dpt. C22a				1
Boiler House W.C.				1
Bowland Ash House A17				1
Bowland East B65				1
Bowland East B207, Safety Office				1
Bowland East C66				1
Bowland East C210				1
Bowland East C231				1
Bowland, English Dpt. B Floor	1			1
Bowland Tower C210				2
CETAD A Floor	1	1		2



In Lancaster and Morecambe, this investment (1.5 million) saw the number of local people cycling rise by 25%. This has been thanks to projects including the extension and introduction of both on and off-road cycle routes, improved signage, cycle training, incentives schemes and by working in partnership with major employers and schools to encourage commuting by bike.

Of particular success has been the number of people cycling on the promenade in Morecambe. The prom was opened up to cyclists in April 2007 and it is already known that there has been a 33% increase in cyclists using this route which was recognised with a prestigious National Transport Award for cycling improvements in August this year. All these projects have been of benefit to many local people who previously did not see cycling as a viable mode of transport.

The Transport Minister also announced the release of the Government's remaining £60million cycling budget for this year to deliver new parking provisions, designated routes and other enhancements aimed at encouraging more people to cycle.

Lancaster and Morecambe are set to benefit from the £10million package having been allocated £200,000 to fund a number of new crossings and the setting up of a bike hire and cycle parking scheme at the University of Cumbria.
http://www.celebratingcycling.org/news_more.asp?news_id=154

Policy references from Dave Horton

1. Hot off the press comes this latest document, published by the Prime Minister's Strategy Office, calling for much greater emphasis on walking and cycling in cities ….
   Slide 74 says: "walking and cycling policy making often occurs without broader consideration of the trade offs required (e.g. disincentives to short car journeys to achieve a mode shift to walking and cycling)."
   http://www.cabinetoffice.gov.uk/media/308292/urbantransportanalysis.pdf
2. Walking and Cycling Action Plan - http://www.dft.gov.uk/pgr/sustainable/walking/actionplan/
3. A Sustainable Future for Cycling (DfT) - http://www.dft.gov.uk/pgr/sustainable/cycling/cyclingfuture.pdf

References

Bijker, W. (1997). *Of Bicycles, Bakelites and Bulbs*. Cambridge, M.A., MIT Press.

Cox, P. (2006 of Conference). "Stifling Innovation in Cycle Technology" Velo Mondial 2006 Cape Town.

Horton, D., Rosen, P., et al., Eds. (2007). *Cycling and Society*. London, Ashgate.

Mapes, J. (2009). *Pedaling Revolution*. Corvallis, Oregon., Oregon State University.

Pooley, C. and Turnbull, J. (2000). "Modal choice and modal change: the journey to work in Britain since 1890." *Journal of Transport Geography* 8: 11-24.

Rietveld, P. and Daniel, V. (2004). "Determinants of bicycle use: do municipal policies matter?" *Transportation Research Part A.* : 531-550.