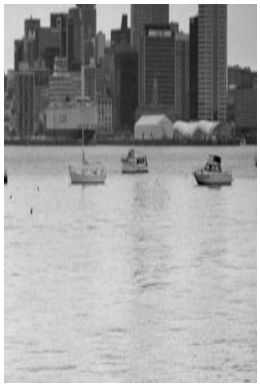
1. Articles



Periodizing Mobilities and Scales of Transition.

May 2015

Vivre à l'ère de la transition mobilitaire

A *Guardian* report on April 30th 2015 suggested that the US, UK and other advanced economies might have reached or passed their point of peak car use.[1] The economic crash of 2008 meant that car traffic, growing since cars were invented, plateaued and fell.

By Tim Cresswell

A *Guardian* report on April 30 th 2015 suggested that the US, UK and other advanced economies might have reached or passed their point of peak car use. [1] The economic crash of 2008 meant that car traffic, growing since cars were invented, plateaued and fell. This has led to discussions of whether this was simply a result of less money circulating or something more fundamental in the world of mobility. One hypothesis is labeled the “interrupted growth” hypothesis and this simply suggests that car traffic will increase again once the economies recover and grow. Some evidence for 2013 and 2014 suggests this may be the case. Other arguments suggest that there has actually been a cultural shift in favour of forms of mass transit and dense city living. It might also be the case that roads have simply become saturated and there is little desire to have more of our landscape given over to more and bigger roads. This is a hypothesis put forward by David Metz the former chief scientist of the Department for Transport in the UK. He argues that we are entering a new *fourth era of travel* .

In the first era of human travel, our hunter–gatherer ancestors walked out of Africa and populated the earth. In the second era, they settled in agricultural com- munities and towns, where travel was generally limited to about an hour a day on foot. The third era began early in the nineteenth century with the coming of the railways, when the energy of fossil fuels could be harnessed to achieve faster travel through a succession of

technological innovations, culminating in mass mobility made possible by the motorcar. There is now emerging evidence that growth of personal daily travel has ceased, so that we are entering a fourth era in which, on average, travel time, trip rate, and distance travelled hold steady. The 'peak car' phenomenon, whereby car mode share in cities like London reached a peak and has subsequently declined, marks the transition from the third to the fourth era. ***[2]***

Why would such a transition happen? Metz argues that this is because of a reduced marginal value of additional car travel in a world with decent and efficient public transport. [3] People in a city such as London simply do not have to travel more to reach the things they need or want. Supermarkets, clinics, schools, entertainment etc. are all near enough to make driving further and longer pointless. The increased use of mobile communications technology also plays a role. Metz argues that the macro-economic factors are not, in fact, the major determinant in the transition to a fourth era.

Metz's argument for a transition to a fourth era of travel is certainly not the first argument focused on historical transitions in mobility. He is drawing on well-known periodizations that may not put mobility at the center but do, nonetheless, have something to say about mobility. Most famously there are the arguments about the birth of the city that Metz draws on. V. Gordon Childe's 'urban revolution' hypothesis suggested that urban life was born as a result of an "Neolithic revolution" in Mesopotamia where the fertility of the land enabled the planting of crops and production of a surplus which allowed people to stop being nomads and settle down in proto urban settlements. [4] Perhaps the most famous theory of transition is Marx's theory of history, the theory of historical materialism. While the key drivers in this transition theory were the relationship between the forces and relations of production – it was clearly key to the move from feudalism to capitalism that serfs and peasants were freed from the obligation to Lords and the land and formed a mobile army of workers moving in on the rapidly expanding cities. Any account of the industrial revolution in the UK and Western Europe is, at least in part, an account of the rise of steam power and the railway.

Perhaps more specifically the geographer Wilbur Zelinsky proposed a "mobility transition hypothesis" in 1971. [5] Zelinsky wanted to match the general hypothesis of the demographic transition model with a mobility transition model. He stated his mobility transition hypothesis as follows: "There are definite, patterned regularities in the growth of personal mobility through space-time during recent history, and these regularities comprise an essential component of the modernization process". [6] Zelinsky broke this hypothesis down into a series of related statements that together confirmed an irreversible link between modernization and mobility through time that paralleled the demographic transition. Despite the universalizing nature of the hypothesis and the high level of generality at which it is stated, Zelinsky's paper actually prefigures much of the more nuanced language of more recent mobility theory.

But perhaps the greatest of the new mobilities is that of the mind. Perception and thought are no longer tethered to the living memory and to the here and now but have been

stretched to virtual infinity. Through such instrumentalities as the printing press, camera, telephone, postal system, radio, television, phonograph, electronic computer, library, museum, school, theater, and concert hall, as well as personal gadding about, there remain no effective boundaries beyond which the nimbler mind cannot penetrate . [7]

In many ways Zelinsky's mobility transition hypothesis foreshadows the arguments of Metz. It traces a transition from a "Premodern Traditional Society" (such as medieval Europe) in which residential migration is almost non existent and circulation is limited to the very few through to "The Advanced Society" in which residential mobility is at a high level, migrants move between cities, unskilled and semi-skilled migrants move from underdeveloped lands and forms of circulation such as work-related travel and tourism are accelerating. The final phase in the transition is the "Future Superadvanced Society" in which improved communication and 'delivery systems' begins to cut into the rates of residential migration and we experience "further acceleration in some current forms of circulation and perhaps the inception of new forms" as well as, prophetically, "strict political control of internal as well as international movements" (Zelinsky, 1971, 231). Throughout his account Zelinsky differentiates between forms of mobility that transition at different rates. Zelinsky's forms of mobility include rural to urban migration (very high as country's transition from premodern to modern), inter and intra urban migration and various forms of 'circulation' that are very high in the advanced and superadvanced stages. Looking toward the future "superadvanced" society Zelinsky is quite prophetic.

Although there is an absolute minimum for both fertility and mortality, it is more difficult to fix an effective upper limit to human mobility, even if the phenomenon is obviously finite. Is there a point beyond which mobility becomes counterproductive economically and socially or even psychologically and physiologically? … When and how will mobility saturation be reached? In any event, further general socioeconomic advance may well bring in its wake socially imposed mechanisms for controlling location and movement of populations. What might be technically and politically feasible is unclear, but planning for a restructured urban system and for circulation and migration therein may become urgent in the near future. The traffic-control systems on our streets may be a primitive precursor of much more elaborate devices . [8]

Despite their similarities, Metz and Zelinsky come from different domains of academic interest. Metz in firmly embedded in the world of *transport* and his account of transition is one of changing modes and intensities of transport. Zelinsky's account is embedded in an interest in *migration* and although it includes references to advanced technologies and various forms of mechanized mobility it is looking a world historical transformation in the kinds of migration and circulation that humans engage in. This is where recent work on *mobilities* that seeks to centre *all forms of mobility* – their patterns, frequencies and velocities as well as their meanings and characteristic practices can do some useful work. [9]

Finally it is interesting to ask what the periodizations of Metz and Zelinsky have to bring to the discussion of transitions currently being carried out under the umbrella of "Multiple Level Perspective on Transition". This work originates from the writing of the Dutch Professor of System Innovation and Sustainability – Frank Geels. [10]

The Multiple Level Perspective of Transitions (MLP) is based on three analytical levels – socio-technical landscapes, socio-technical regimes and niches. These levels are often described as a 'nested hierarchy' with niches existing inside of regimes inside of landscapes. Niches are protected sites (by implication small scale) where innovations most often take place. The example of a laboratory is frequently given. Niches are allowed to, or encouraged to, deviate from dominant regimes. Regimes are the established and relatively stable socio-technical contexts. Regimes (drawing on Giddens' structuration theory) refer to the "deep-structural rules that coordinate and guide actors' perceptions and actions". [11] The socio-technical landscape is an even wider set of established structures including the actual physical landscape (and by implication, dominant socio-spatial arrangements) as well as dominant sets of values and economies. In most apparent senses these are also scales and are represented as such in diagrams, which show a base layer of small niches feeding into a large and higher regime which is, itself part of a still larger and higher landscape which seems to map nicely on to the scale of the nation. Geels and colleagues are not providing accounts of transition from era to era – but, more modestly, from one technology to another – such as the horse drawn carriage to the automobile. The models are being used to think about ways to transition in the future to more sustainable socio-technical regimes. Geels' model of transition is very technology centred unlike the accounts of either Zelinsky of Metz.

So how do these different accounts relate. Geels' account of transitions puts an emphasis on small-scale niche developments working their way up through levels to become part of the landscape. We can think of current work being done on electric cars in places like Tesla in these terms. But was this how older, large scale, transitions happened or are happening. Zelinsky's account of the transition from premodern to advanced mobility societies is based on massive changes in patterns of mobility as people left the land and moved to the city. The drivers here were fundamental changes in agricultural productivity and cultural and social changes in what the relations of production. Hardly "niche" developments. Metz's account of transition is one in which car use reaches saturation point and it simply becomes irrational to drive further of more often. Again – this is not fundamentally anything to do with niches (which is not to say that niches do not have a role to play here). So, my question is, where should we look for the drivers for transition to a new era of mobility (not transport or migration but both and more besides)?

[1] http://www.theguardian.com/cities/2015/apr/30/have-we-really-reached-peak-car

[2] Metz D, 2013, "Peak Car and Beyond: The Fourth Era of Travel" *Transport Reviews* **33** 255-270. P267

[3] Ibid.

[4] Childe V G, 1937 *Man makes himself* (Watts, [S.l.])

[5] Zelinsky W, 1971, "Hypothesis of Mobility Transition" *Geographical Review* **61** 219-249

[6] Ibid. P221-222

[7] Ibid. P225

[8] Ibid. P248

[9] Cresswell T, 2006 *On the move : mobility in the modern Western world* (Routledge, New York), Cresswell T, 2010, "Towards a Politics of Mobility" *Environment and Planning D: Society and Space* **28** 17-31, Sheller M, 2012, "The Emergence of New Cultures of Mobility: Stability, Opening and Prospects", in *Automobility in Transition? A Socio-Technical Analysis of Sustainable Transportation* Eds F W Geels, R Kemp, G Dudley, G Lyons (Routledge, New York) pp 180-202, Sheller M, Urry J, 2006, "The new mobilities paradigm" *Environment and Planning A* **38** 207-226

[10] Geels F W, Kemp R, 2012, "The Multi-Level Perspective as a New Perspective for Studying Socio-Technical Transitions", in *Automobility in Transition? A Socio-Technical Analysis of Sustainable Transport* Eds F W Geels, R Kemp, G Dudley, G Lyons (Routledge, New York) pp 49-79

[11] Ibid. P54

Mobility

For the Mobile Lives Forum, mobility is understood as the process of how individuals travel across distances in order to deploy through time and space the activities that make up their lifestyles. These travel practices are embedded in socio-technical systems, produced by transport and communication industries and techniques, and by normative discourses on these practices, with considerable social, environmental and spatial impacts.

En savoir plus x

Residential mobility

Broadly speaking, residential mobility refers to a household’s change of residence within a life basin.

En savoir plus x

Movement

Movement is the crossing of space by people, objects, capital, ideas and other information. It is either oriented, and therefore occurs between an origin and one or more destinations, or it is more akin to the idea of simply wandering, with no real origin or destination.

En savoir plus x

Mobilities paradigm

The mobilities paradigm is a way of seeing the world that is sensitive to the role of movement in ordering social relations. It serves to legitimize questions about the practical, discursive, technological, and organizational ways in which societies deal with distance and the appropriate methods for their study.

En savoir plus x

Associated Thematics :

Lifestyles

- Change in practices

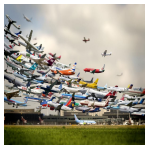
Policies

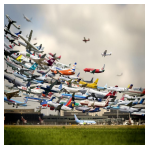
- Cars

Theories

- Concepts

Other publications





Did Covid cause public transport to grind to a halt?

Annelise Avril, David Henny