



7th and 8th September 2017
Imperial College London

Book of abstracts

ORAL PRESENTATIONS

Session 1: PLANNING

Chair: Graeme Sherriff (University of Salford, UK)

Claudia Peñaranda and Alex Longdon (Transport for London, UK)

Analysis for developing a Strategic Cycle Network for London

What should an ideal Strategic Cycle Network for London look like by 2041? Where are the most important corridors and areas for investment in cycling now? And where can cycle investment help making communities healthier and more connected?

Our presentation will provide an answer to these questions based on the spatial analysis of complex and varied datasets, including the new Cycling Network Model for London (Cynemon), the updated Analysis of Cycling Potential, and population and employment forecasts. We will also discuss the potential benefits of developing a Strategic Cycle Network to address wider societal concerns such as safety hotspots for vulnerable road users', realising walking potential, enabling multimodal trips, improving bus reliability, and increasing access to public transport.

To complement the focus on the network, we'll present our use of data on cycling demand, street types, and street connectivity, to identify the best opportunities in London for area-wide schemes, where walking and cycling could be jointly unlocked and the place potential of streets fostered.

The main findings of this unprecedented analysis were published by Transport for London on the 16th of June, in a report entitled Strategic Cycling Analysis (<http://content.tfl.gov.uk/strategic-cycling-analysis.pdf>), and were also included in the proposals and maps of the Draft Mayor's Transport Strategy (https://consultations.tfl.gov.uk/policy/mayors-transport-strategy/user_uploads/pub16_001_mts_online-2.pdf).

Our belief is this analysis will become an invaluable resource for London boroughs, developers and campaigners, and it will inspire town and transport planners from other UK cities. This presentation will be a key opportunity for the cycling community to gain insight into a new approach to cycle infrastructure planning, network-oriented and evidence-led. And it will allow us to gather invaluable feedback and thoughts on our analysis from a wide audience of experts, helping us further refine and improve our work.

Joseph Croft (University of Westminster, UK)

Infrastructure and Normalisation: voices from the three Mini-Holland boroughs.

In recent years, against a national, low-cycling background, London has begun to invest more heavily in cycling. Whilst central London has been an epicentre for funding - with Cycle Superhighways, a network of radial Quietways and a Cycle Hire Scheme - other areas of outer London have experienced a pace of change that is glacial by comparison. Three outer London

boroughs provide a notable exception. Enfield, Waltham Forest and Kingston are part of the 'Mini-Holland' programme (MHP) which aims to replicate the favourable, high-quality cycling provision available in the Netherlands. The MHP programme is more than a third complete but the re-appropriation of roads and new infrastructure has created a level of polarisation in local communities.

This research paper considers the changing nature and perceptions of cycling in the three MHP boroughs. It is based on 12 in-depth qualitative interviews with local residents. Key themes explored include the normalisation of cycling, the interplay of affluence and gentrification – and perceptions of unequal participation rates in different social groups.

While the research is continuing and will be complete by early September, tentative conclusions include a consensus that new, higher-quality infrastructure is thought to be leading to more people cycling. Furthermore, certainly in Waltham Forest, local hostility towards the scheme may be showing signs of thawing – although there is still a marked perception that cycling is not demographically diverse and that improved infrastructure does little to change this. As the MHP continues, and is potentially replicated in other areas, research and investment must focus on achieving a greater level of inclusivity to ensure that cycling is seen as a normal and logical mode of transport in London and other low-cycling contexts.

Tim Warin (Aalborg University, UK), Jens Stissing Jensen (Aalborg University, UK), Anne Jensen (Aarhus University, DK)

Operationalising planning for cycle transitions. An institutional perspective of Quietway 2 in London.

Transitions in planning for cycling are too often liable to policy failure, with cycle infrastructure projects being manipulated to fit the existing status quo in planning. Using new institutional theories and transition theories, the study investigates the challenges and opportunities for local planning bureaucracies in translating abstract plans for 'improving cycling' into street level interventions, and the operationalisation and delivery of new street designs. Specifically, we examine the case Quietway 2, a project within the Mayor's 'Vision for Cycling' in London and focus on planners, engineers and politicians implementing the cycle policy of Quietway 2. The study shows that transformational street level interventions for cycling delivered by local boroughs are constrained by institutionalised practises, rules and toolsets that historically have been framed around automotive planning. It is demonstrated that two distinct realms of planning exist; the strategic road realm and the local road realm, with each exhibiting differing barriers to implementing cycle infrastructure where disruption to current normative practises is required. Moreover, the study shows how path dependencies are cracked by institutional brokers in local planning departments and among everyday users of the streets. As such, the study concludes with suggesting that future cycling projects attempt to better navigate and transform these institutional environments and build context sensitive, epistemic tools for local officers. Where Quietway type interventions are concerned, it is suggested that this focus be on operationalising traffic reduction on local roads, with pathways for achieving this suggested based upon analytical findings.

Andrea Hernandez and Ditte Bendix Lannig (Aalborg University, DK)

Mobility Acupuncture in Caracas city

How can we incorporate a bike transport system? For some cities it seems impossible to imagine alternatives to solve mobility problems. Social, cultural, economic and political aspects are aligned together in favor of car dependency and not sustainable ways of moving. Mobility and urban dynamics are growing in the way that they become unsustainable in time and hence collapse. Caracas is an example of this phenomenon that is perceived by citizens as irreversible. Historically, Caracas has grown under a disorganized urban planning, based on pragmatic solutions to move from home to work faster, prioritizing the construction of roads, motorways, highways and means of transport without having a human scale development perspective. The strong influence of the European urbanism and modern urbanism, by the application of zoning, generated a car dependent city and problems like overcrowded means of transport, due to insufficient transport capacity, disorganized and 'informal' means of transport, lack of public spaces and spontaneous sprawl. How and where to start solving the mobility problems? This paper will analyse the Caracas en bici-case¹ as an example of how biking can be used as a catalyst to solve here-and-now mobilities problems, and how it can be a key component of a long-term strategy.

¹Caracas en bici (Caracas on the bike, English translation), it is a first place project proposal in Caracas a pedal (Pedaling Caracas) competition, launched in 2012 by The Metropolitan Municipality of Caracas. Authors: Arch. Andrea Hernandez and Arch. Cruz Criollo.

Session 2: ROAD SAFETY AND EDUCATION

Chair: Gabriele Schliwa (University of Manchester, UK)

Al Baker and Kate Pangbourne (University of Leeds, UK)

What do online arguments about cycle safety reveal about the politics of transport?

In this paper we describe some recent findings about the prevailing arguments that break out on social media in response to tweets about safety and cycling. We have identified several distinct focal topics for arguments that break out, in which safety features heavily.

Here, we focus on two case studies - the controversy generated by the Think! 'Hang Back' campaign from September 2016, and threads about the concrete barriers on Westminster Bridge installed in June 2017. Our first case study, the 'Hang Back' campaign, was intended to raise cyclists' awareness of the danger of collisions with heavy vehicles when turning left at junctions, was widely derided for a perceived implication that the campaign was unfairly holding cyclists responsible for any injury sustained in collisions with vehicles. Our second case study involves responses to the placement of concrete barriers on Westminster Bridge following the recent terrorist attack on pedestrians perpetrated by driving a car onto the pedestrian walkway along the bridge. The concrete barriers were erected overnight and placed directly over the existing cycle lanes, leading cycling campaigners to raise concerns about risks, such as crushing, to cyclists forced to ride on the main road between often heavy traffic and the waist high concrete.

An analysis of the argumentation surrounding both case studies reveals that the complaints and criticisms of cyclists and pro-cycling campaigns to Government policy are commonly undermined by claims and arguments which imply that cyclists' concerns about their own safety are illegitimate; an implication in tension with the expressly safety-focused aims of policy debates in which these concerns are raised. We argue that these case studies are indicative of a consistent and dangerous minimisation of cyclists' interests in the politics of transport, and suggest some rhetorical and argumentative strategies that, if adopted by relevant stakeholders, could contribute to a more just and sustainable politics of space and safety in transport policy.

Angela van der Kloof (Radboud University, NL)

The Formation of Cycling Knowledge

Cycling is a mainstream form of transportation in the Netherlands. In streets and roads in cities and towns, and also between cities and regions, people on bikes can reach their destination with relatively safe and convenient infrastructure. Many people in the Netherlands indeed cycle, and you will find people of all ages, backgrounds and abilities on cycles. It should be kept in mind however, that not everybody cycles, and that it is not done to the same extent and for the same purposes by everyone.

In my research project I take a closer look at the processes in society that enable people in the Netherlands to learn to cycle, have a bicycle and have a positive attitude towards it. We can take this for granted, and say that cycling is in the DNA of the Dutch, but that is not very helpful if we truly want to understand which factors influence cycling levels and why there are e.g. still many short, bikeable trips done by car, or why certain groups cycle less than others. My research question is: How is cycling knowledge amongst children and elderly in the Netherlands formed and sustained by the social infrastructure? I take both formal, as well as informal educational activities for children and elderly, as key elements of the social infrastructure (e.g. parents, schools, Cyclist Unions, organizations for the elderly and local authorities).

I will present the preliminary conceptual framework of my research in which two types of infrastructure are the input of the formation of cycling knowledge: social and physical infrastructure. Actors in the social infrastructure in the Netherlands form and sustain cycling knowledge through activities and motives that take place at home, in schools and in community centers. This process is supported by bicycle friendly physical infrastructure.

Graeme Sherriff (University of Salford, UK)

'Seeing it from a cyclist's point of view is totally different' Cycle training, driver training and the normalisation of cycling

This paper will report on two pieces research - with those cycling and those driving HGVs respectively - and present further theoretical development of the concept of cycle training within the context of the normalisation of cycling.

Whilst cycling, for sport, leisure and utility, is gaining in popularity, the 'various barriers to cycling ensure that it remains a very marginal means of urban travel' (Pooley et al 2013: 150).

It is important to be realistic about the extent of the challenge of normalising it as mode of transport. Research has shown that other road traffic forms a particularly significant barrier, in terms both of its intensity and of the behaviour of other road users.

In relation to confidence and understanding of the 'rules of the road' cycle training can be helpful for both children and adults (Sherriff, 2014). One finding of research into attitudes towards cycle training is that it is important that cycle training is not viewed in isolation: that is, cycling is not singled out as the one mode of transport that needs to address cycle safety. It is therefore important to address driving practices that may put them at risk.

'Safe Urban Driving' courses currently being delivered in Greater Manchester can be understood as a response, and this paper reports on research into training provided to HGV drivers. HGVs are a relevant target for such training, with HGVs historically accounting for a disproportionate number of walking and cycling deaths (TfL 2014).

The paper will explore important questions about how cycle training is conceptualised. How does the cycle training agenda relate to notions of disobedience and sub-culture in cycling. If cycling is normal, why should we 'need' cycle training and why should HGV drivers need reminding that there are bikes on the road?

Pooley, C. et al., 2013. Promoting Walking and Cycling: New perspectives on sustainable travel. Bristol: Policy Press.

Sherriff, G., 2014. Communicating Cycle Training Perceptions and Experiences of Adult Cycle Training. University of Salford

Transport for London, 2014. Collisions and Casualties on London's roads: Annual report 2014. London

Toby Jacobs (University of Westminster, UK)

Analysing Bicycle Crash Risk in Portland, USA: what difference does infrastructure make?

The introduction of cycling facilities to a city's transport network has effects in terms of safety for a variety of users as well as the uptake of cycling for different journey types. Measuring these effects has proven difficult due to a number of factors, not the least of which being the often patchy and incomplete data on cycling rates. Here we look at the safety effects of the introduction of a network of cycling facilities over the period 2005 – 2014, in the city of Portland Oregon, USA.

Portland has been chosen because of the availability of data on both infrastructure and cycling levels; including data on installation dates and locations of all cycling facilities. GIS shape file data has been used to define the facility's locations within the Portland network. Additional shape files containing information about injury collision rates and locations were also used. Portland has relatively high levels of cycling which means that there are enough data points to test statistical significance, which can be an issue in English speaking cities that typically have low levels of trips made by bike.

Many previous studies looking at this issue have suffered from the key weakness of failing to control for exposure; i.e. looking at where cyclists are injured but without being able to account for where cyclists are riding. This means that apparently dangerous sites might appear so because of high volumes of cyclists, rather than high risks for each cyclist. We have used local count data combined with trip records produced by users of the Strava cycling

smartphone app to generate control points whose infrastructural characteristics can be compared with injury points. This enables us to see whether, for instance, bicycle boulevards (streets with reduced motor traffic volumes and/or speeds, which cyclists are encouraged to use) are associated with lower injury risk.

Analysis is currently under way and will be complete by August ready to present the results at the Symposium.

Session 3: METHODS

Chair: Cosmin Popan (Lancaster University, UK)

Jolein Bergers, , Stijn Rybels, Maarten van Acker, Tom Coppens and Dirk Lauwers (University of Antwerp, BE)

The assessment of the cycling renaissance: towards a composite Bikeability index for urban planners and policy-makers.

Global questions on congestion, climate change, changing demography and physical inactivity have shifted the collective focus of the disciplines of urban planning and transportation planning towards strategies to reduce motorized traffic and to promote active transportation. Accordingly, urban planners and policy-makers worldwide are reintroducing the bicycle on the (urban) scene, retrofitting existing car-oriented environments into more bicycle-oriented - or 'bikeable' - ones (Groningen, Portland ...). This concept of 'bikeability' goes beyond the design of urban infrastructure: it captures the whole urban infrastructure and its relation to the urban environment on a cyclist' scale.

Concerning bikeability, international research has provided evidence of the correlation between the built environment and cycling behaviors, but the correlation between these determinants is not clear. On the other hand, existing bikeability assessment tools measure combinations of these determinants, but fail to truly cover the entire spectrum of bikeability. Nevertheless, the growing complexity and scale of cities (and the questions and problems that this fact entails) has created support for the development of monitoring and assessment tools that can assist policy-makers and urban planners in their decision-making processes. The development of these assessment tools could serve in parallel as a flywheel for a better understanding and quantification of the essential environmental and perceptual measures influencing cycling

By means of a state of knowledge on bikeability determinants and existing bikeability in-dices, this paper tries to set out a framework for the development of a Composite Bikeability Index (BCI) that would allow urban planners and policymaker to make thorough decisions on how to increase the bikeability of urban neighbourhoods, but also, for a further understanding of the interrelating factors between measures from transportation planning, urban planning and cycling experience studies.

Jesse van Hulst (Wanderhulst.com, NL)

Cyclo-geography: The Irish borderlands in wake of Brexit.

Soon the border between Northern Ireland and the Republic of Ireland will become an European outer border. As of yet it remains unclear how exactly the border will be shaped in the future, at the time of writing the negotiations between the United Kingdom and the European Union just started. Through a cycling journey following the border, a research has

been done within the phenomenological tradition and the mobilities turn combined with an ethnographic research into the borderlands of Ireland. This ‘cyclo-geography’ explored the possibilities of a site visit from the perspective of the bicycle. It argues that the bicycle is a splendid instrument to experience a region and a humble tool to conduct research. Through qualitative interviews with people living along the border about living during the Troubles, life now and about the Brexit, a view on the borderlands has been made.

The Irish border has changed dramatically in recent history. Once constructed in context of Post-Imperialism of the British Empire, it saw decades of smuggling and more recently, it became one of the most militarized zones of Western Europe in the second half of the 20th century during the Troubles. After the Good Friday Agreements, the European Union invested significantly in the region through PEACE IV and INTERREG programs. Now the Brexit will drastically change live in the border region. All these themes are discussed in the interviews with the inhabitants of the border lands; what their views, hopes and dreams are on this tumultuous region. Combined with the site visit on the bicycle, this research creates a story of the borderlands between Northern Ireland and Ireland.

Adrien Caillot, Thomas Buhler and Marie-Hélène de Sède-Marceau (University of Bourgogne-Franche-Comté, FR)

Understanding the links between cyclists' behavior and cyclability in French Cities. A mobile method with real time discourse

Since the 80s in France several urban policies have emerged targeting a shift from car to other transport modes. Despite new infrastructures and communication campaigns, the results of such policies still remain lower than expected [Kaufmann, 2000 ; Buhler, 2015]. For most of French cities, bicycle modal share remains under 3%. My PhD work focuses on the reasons of this.

A consistent literature suggests institutional, technical and economical reasons, but in our knowledge there are few research works about bicycle usage from the cyclist's point of view. The hypothesis we tackle here concerns the “cycling-ability” that makes a person cycle or not.

In an urban environment, a cyclist needs to deal with a lot of different parameters: position on the road, route, balance, speed, other users' moves... Dealing with these factors at the same time needs to have an important part of them internalized, a psychological process that transfer them into automatic reflexes.

To study “cycling-ability”, that is to say the way urban cyclists deal with all these parameters at the same time, we developed a mobile method consisting in following volunteer cyclists in real time conditions letting them comment their ride. This method, partially based on similar works [Meissonnier, 2012], consists in two parts:

- First we ask the user to cycle on a well-known route for him.
- Then we ask him to cycle to another place we choose.

In both parts, we follow him with an embedded camera, in order to record his behavior and his comments. This method lets the user describe his experience in real time, without the need of questions, so it limits the risk of influencing his discourse. It gives the opportunity to see his behavior in his environment, without any filter. Then this method allows to carry out

other research projects: comparisons among different people cycling through the same place, or between the same person's behavior in different places, or among different kinds of users, etc.

The presentation will be first about the aims of the experience, then the method in itself will be described, and finally we will see the first results.

Oliver Blake (Utrecht University, NL)

Incorporating the Everyday: Pedalling Towards Citizenship and Belonging.

As a cycling nation, the bicycle makes up a key part of daily lives for many Dutch citizens, truly an object of the everyday. However, riding a bicycle is a skill that not all living within the Netherlands poses. For people in this position, predominantly those with a non-Dutch background, the provision of cycle lessons intends to make this skill available.

Through ethnographic research I have come to understand these lessons make as a liminal period in which pupils learn a skill, moving them from one state, that of a non-cyclist to a cyclist. This period of change lets them engage with an aspect of social citizenship in the Netherlands, aligning them closer to a sense of Dutch identity. Once finished the lessons some students can independently cycle, with their own bicycle. These students have incorporated an everyday practise of the Netherlands into their own everyday.

This process teaches much beyond the bicycle. The journey students go on across the lessons fosters strong bonds between the Dutch teachers and the non-Dutch students, both parties, mix, learn and integrate; something I come to understand as a two-way process. The ability to ride a bicycle does not only connect people with an object so closely linked to Dutch national identity, it also allows exposure to space and place which the students inhabit, creating the potential for a deeper sense of belonging within their new nation.

Gabriele Schliwa (University of Manchester, UK)

Designing Urban Citizenship - Is the bike today's 'Trojan Horse'?

Who does not remember the sense of freedom as a kid, when the first bike suddenly opened up entire new neighbourhoods, new friendships along with independence and responsibility? Today, cycling is becoming mobilised and promoted within a whole variety of contexts and under different agendas. We find retro bikes displayed in hip coffee shops, we watch mayors cycling in front of journalists, innovation research testing the latest cycling app and automobile industries launching their own bike series. Faced with cities across the globe drowning in congestion, air pollution exceeding critical levels and public health issues ever increasing, cycling appears to be the one fits all solution for many urban problems.

My presentation reflects upon cycling as a lens to better understand the socio-political as well as socio-economic contexts and underlying values of initiatives, individuals and organisations that promote cycling. The research draws upon a variety of examples and uses CycleHack - an initiative on a mission to reduce barriers to cycling by bringing human-centred design into the world of cycling - as in-depth empirical case. I suggest that a pure focus on the promotion of cycling might limit arguments as well as agents of change available to us. I argue that the bike might function strategically as a 'Trojan Horse' under political and economic agendas that

might lead to the individualisation of systemic problems and even contradict our personal value system. Today it is more than ever necessary for urban research to (re-)discover cycling as a lens to understand society.

Session 4: EQUITY

Chair: Angela van der Kloof (Radboud University, NL)

Simon PJ Batterbury (Lancaster University, UK and University of Melbourne, AU)

Community bike workshops: creating *vélonomie* through the social economy

Community bike workshops (or 'bike kitchens') provide an 'urban commons', where people can learn to repair or build a bicycle. Some were established over thirty years ago, often in association with other campaigns, and most Western cities now have at least one - there are hundreds across Europe and North America. Recycled bikes and parts are repurposed and repaired by those needing transportation, or those wanting to achieve "*vélonomie*" (bicycle autonomy- mobility + skills) assisted by staff or volunteers. With a small group of collaborators, I have interviewed participants or worked in 28 workshops in continental Europe, the UK, NZ and USA, to research their history, mode of operation, budgets, and contributions to urban sustainability. Our research at <http://bikeworkshopsresearch.wordpress.com/> explores the different pathways and emergent innovations in workshops. Missions vary from "creating *vélonomie*" in a locality, to gradually transitioning into larger social enterprises with paid staff; finding and maintaining workshop premises is a shared problem. Staff are stalwarts of 'community economies'; their concerns usually go well beyond bikes. Some are anti-establishment activists but there are also social entrepreneurs and bike enthusiasts. Gender balance is rare. Workshops are well 'networked', particularly in France and Belgium, but there are signs of emerging competition and tensions around their missions and ideals. In sum, community workshops operate on the 'demand' side of sustainable urban transportation. Building 'demand' for cycling is much harder than building bike infrastructure ('supply'), and is considerably less explored by mainstream planners, engineers and scholars of cycling, who have largely missed the importance of workshops. The passion and the skills needed to build a bike culture reside in them; as does support for bicycle justice and new rights to the city.

Katja Leyendecker (Northumbria University, UK)

Making the personal political – overlaps in feminist theory and cycle activism

I start from the point that a lack of conceptual oversight is one major trap that cycle activism can be ensnared in - especially at a time when democracy and democratic processes are in crisis. Where can cycle activists turn for knowledge and ideas?

With that backdrop in mind "What can cycle activism learn from feminism?" is a question worth asking: not only does feminism hold a rich and undulating history of activism, it can also provide academic theory and concepts relevant to cycle advocacy and academia. Employing feminist theory and revisiting the history of feminism I want to draw out parallels to cycle activism. I also hope to uncover new avenues for cycle activism to advance its radical cause for social justice: happy citizens and their communities in healthy cities with prospering local economies.

The basis for my analysis is an auto/ethnographic look at newcycling.org (Newcastle's local cycle campaign, founded in 2010). I will compare newcycling.org's origins and progress (its linkages with politics and inter/national cycle activism) to radical feminist theory, thus plotting parallels, overlaps, diversions and partings. In closing, learning from the comparison, I will attempt to draw an outlook for an emancipated cycle activism.

Cosmin Popan (Lancaster University, UK)

Utopias of fast and slow cycling

Historically, cycling has nurtured a multitude of competing, sometimes even conflicting, visions about what represents the 'good society'. Indeed, the bicycle is 'a complex socio-technical object whose meanings and uses are shaped variously through its histories, production and uses' (Vivanco 2013: 26). As such, the bicycle utopias meant different things to different people at different times in history.

In late 1800s, cycling was mainly a bourgeois pastime, while the bicycle was associated with aspirations of modernity and progress (Furness 2010; Reid 2015). Conversely, the first half of the last century has witnessed a democratisation of the practice, particularly driven by feminist and socialist dreams, while in the second half environmentalist and anarchist movements kept the hopes of cycling futures alive (Horton 2006). Today, cycling is inspiring visions of sustainability, urban regeneration and getting economies back on track.

Drawing on research of contemporary cultural representations of cycling from literature, graphic novels and other artistic experimentations, as well as from policy documents such as cycling plans from London and from across Europe, this paper aims to unpack the form, content and function of current bicycle utopias (Levitas 2013). In doing so, I argue that aspirations of truly 'sharing cities' can only be achieved once the utopian promises of fast and seamless mobilities, as well as their associated hopes of unfettered economic growth, are challenged upfront.

Bibliography:

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Anne Jensen (Aarhus University, DK)

Cycling visibilities and social equality in the city

Across the globe, cycling is receiving increased attention as a way to tackle a range of health, congestion, environmental and spatial challenges in the city, and cycling policy is in some

cities also included as central to promote the transition to post-industrial, post-carbon cities for people. Many initiatives increase liveability and access in cities and change the design of urban space, thus challenging the dominance of the car and automobility. How this affects issues related to social equality is however addressed fragmented and is often based on the assumption that improvements for cycling will per se increase social equality in the city. This study focusses on social equality related to cycling and mobility, and based on Foucauldian and Deleuzian theories, we examine how the way cycling is made or become visible impacts social equality in the city. For cycling to be included in urban policies, cycle mobility needs to be represented in specific ways that shape mobility perceptions and constitute cycling as an object of governing for local policy-makers, e.g. as providing opportunities for health, as included in transport modelling, or as meters of cycle tracks and minutes saved in traffic lights with green waves for cycles. Equally, people who conduct cycling practices interact with and make cycling visible as a form of everyday mobility that takes place in urban spaces, which also includes atmospheres of places, sense-scapes and the experience of cycling as a bodily activity. Thus, cycle mobility is also made visible in ways beyond what can be represented in words and numbers. Through qualitative interviews, document analyses and observations of cycle practices, the study shows how the groups of urban citizens that cycle mobility is designed for, motivates and opens new opportunities is deeply embedded in these representational and non-representational visibilities of cycle mobility and that this in some cases increase inequality.

Isabelle Clement (Wheels for Wellbeing, UK)

How do we build an inclusive culture for disabled cyclists?

This year, Wheels for Wellbeing carried out a [survey](#) to gather the views and experiences of disabled cyclists nationally in order to better understand their issues and concerns. We believe this is the first ever such survey.

The results challenge some widely held assumptions about disabled people and cycling. They also highlight a clear need to carry out a lot more research into this group.

Amongst other things, we found that 1 in 3 disabled cyclists have been asked to dismount and walk their cycle, even though they were using it as a mobility aid – a concept which is unbeknown to many. Interestingly, a further 11% said they had been allowed to cycle in a pedestrianised area once they'd explained that their cycle was their mobility aid, suggesting a variation in police and local authority understanding on the issue.

Though the mobility aid concept is clearly an important issue, disabled cyclists said inaccessible cycling infrastructure was the biggest difficulty they face. This is usually down to narrow cycle lanes, bollards and anti-motorcycle barriers that restrict or deny access to non-standard cycles, such as tricycles and tandems.

For those cycling non-standard cycles, cost and lack of subsidies is a further barrier to cycling. One in ten disabled cyclists have been unable to obtain a cycle through the Cycle to Work scheme because the cycle they requested exceeded the £1,000 loan limit. 19% have been unable to find any inclusive cycling opportunities in their area.

We will use this opportunity to share with delegates our latest findings and explain how this has shaped the focus of our current campaigns. We will also put forward a number of practical recommendations and solutions for making cycling more inclusive for all.

Session 5: INTERMODALITY

Chair: Claudia Peñaranda (Transport for London, UK)

Nicola Waight (University of Westminster, UK)

Experiences of journeys combining folding bikes and rail in the UK

In the words of the users, combined bike and rail use offers seamless travel; bikes solve the issue of the first and last mile and their riders bring more revenue to rail companies. Yet many trains, particularly towards London, are already full and cannot accommodate bicycles on board.

Mass cycle parking at stations is the model used in many other countries and is booming in the Netherlands but the UK is some way behind. Folding bike use here has increased whilst the number of full size bikes on board has declined. So what's happening? Literature specifically related to folding bike and rail is very limited; this research offers a new angle by investigating the experiences of those who choose to travel by folding bike and rail in the UK. Qualitative research in the form of semi-structured interviews was used to gather a rich insight into the experiences of current users asking; what motivated them to buy folding bikes; why do they take them on trains; and how do they experience their journeys from end to end?

The themes arising from these questions will (by mid-July 2017) be posed to key members of the Cycle Rail Working Group (formed of The Rail Delivery Group: Network Rail, Transport for London, Department for Transport, Urban Transport, and UK Cycling Alliance among others) for their perspective and response (agreed with chair Philip Darnton). These views will be incorporated into the research findings to be submitted as an MSc Dissertation in Transport Planning and Management at the University of Westminster by 5th September.

Alberto Zanni (Independent Researcher and Consultant, UK/IT)

The determinants of high modal shares in the cycling cities of Northern Italy

Cycling in Italy is often associated with multi-stage races and alpine passes. However, the country also boasts a number of medium-small cities with a strong everyday cycling culture and high modal shares (>20%, with peaks of 29% in Bolzano and Pesaro). Some of these cities have also developed a considerable infrastructure network that, while not as sophisticated as in Holland, is definitely worth being discussed and analysed.

Not much research has been done on these cities so far, and the purpose of this presentation is to discuss the current situation, good (and bad) practices and build a set of hypotheses (to be tested in a subsequent phase) about the way the current modal shares have been achieved and how they can be increased.

The presentation will focus on the experience of the Northern cities of Reggio Emilia (22% cycling modal share in 2015), which has the highest rate of cycling infrastructure per inhabitants in Italy, and Bolzano, which has the highest modal share (29%) but less infrastructure. These are the hypotheses:

- infrastructure is essential, but experience in Italy shows something can also be done with smaller scale efforts (improving connections, signals, pedestrianisation, speed limits, two way systems for bicycles, lorries restrictions), especially in historical city centres, where complete separation is not always possible
- people cycling and people driving are largely the same person (and conflicts about urban streets users are less strong than in the UK)
- in many cases, the person who cycles regularly is at least the 4th generation of people cycling within the same family (strong family ties)

The discussion will help the planning of the future steps of this research, which will also look at whether some of the identified best practices can be replicated in cities elsewhere in Europe.

Reference list:

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Caroline Bartle, Kiron Chatterjee and Ben Clark (University of the West of England, UK)

How and why do commuters mix cycling with other modes of travel? Lessons from the North Bristol Commuter Panel

Increasing the proportion of commute trips undertaken by cycle is an established part of local transport policies which seek to reduce peak-time traffic congestion and improve population health in cities. Surveys show that people who cycle to work tend to be more satisfied with their commute than car and public transport users, whilst cycling is also increasingly seen by employers as offering indirect business benefits by contributing to the health and wellbeing of staff. However, making a complete switch to cycling to work every day can be challenging for many individuals.

The North Bristol Commuter Panel study, which tracked the behaviour and perceptions of 1,900 commuters on seven occasions (three months apart) between March 2014 and October 2015, has been used to reveal the extent to which commuters mix cycling with other modes as part of their commuting routines, and the extent to which this changes over time. At each wave the panel participants completed a one-week commuting diary. This showed that although only about 11% of the respondents cycled to work every day, 23% cycled to work at least once during the week. Respondents were also asked to identify their 'normal' commute mode (mode used with greatest frequency) at each wave. Changes between driving alone and cycling from wave to wave were relatively common. Analysis was undertaken of individuals' reasons for these changes based on open survey responses and follow-up phone interviews.

The findings showed that stable changes to or from cycling, following, for example, a home or job move, were less common than periodic changes and routine modal mixing. Common reasons reported by respondents included: time of year, changes in family circumstances, health issues, workplace parking restrictions, and routine day-to-day commitments. The findings suggest that measures to encourage cycling to work should be designed to accommodate the complexities of individual travel patterns and life demands, aiming to facilitate the greater use of cycling within the 'modal mix' of a diverse range of commuters.

Mark Dimond (ITP Consultancy, UK)

How the changing world of Bike Hire Technology influences the role of planning in encouraging active travel

Many UK and international cities are continuing to invest in public cycle hire schemes, to help facilitate clean and active travel and mitigate the effects of traffic in city centres. Cycle hire schemes can help encourage more of the travelling public to try active travel modes for commuting and leisure, resulting in health improvements and contributing to better air quality. A big part of the role of planning in these projects is the selection of the best possible sites around a large town or city, picking locations which serve the public need and are convenient for the largest population possible.

This presentation will describe how ITP's work in several Midlands cities has brought together different open data and proprietary datasets to form an evidence base to help select these locations. For example, many local authorities have GIS data of planned future residential, employment, and transport developments, but the understanding of these in siting infrastructure is complicated. The talk will discuss the challenges of obtaining appropriate data, and also the opportunities raised by data collected from new sources such as Strava and hire usage datasets.

Finally, we will examine the impact of the changing marketplace – particularly the advent of 'dockless' hire scheme operators which exploit on-bike technology and widespread smartphone usage to reduce the need for costly on-street docking infrastructure. With growing use of such systems, detailed location planning may become less crucial to the installation of schemes, but we will explore the issues that remain and the role of planning and data in addressing these.

Posters' lightning presentations

Chair: Esther Anaya (Imperial College London, UK)

Lucy Marstrand (University of Westminster, UK)

Transport Culture and Curriculum: What's stopping walking and cycling from being mainstream?

1. Entrenched practices and cultural barriers

Literature review findings: the engineering profession plays a powerful role in shaping our roads and engineering convention is found to have an in-built bias towards motorised traffic. Analysis of the LinkedIn profiles of senior transport practitioners in order to shed light on the culture and values of this professional community. Findings:

- 69% are engineers
- skills pertaining to designing for the car are held in higher regard than walking, cycling or urban design skills

2. Lack of diversity among 'Heads of Transport' in Transport Authorities

91% of Heads of Transport surveyed were male compared to only 9% female. Men drive more than women and may favour car-oriented environments. Equal representation of women in transport could help promote walking and cycling.

3. Walking and cycling not mainstream in Transport MSc courses

- a) Walking and cycling were often 'add-on' topics in engineering modules, but conventional highways standards covered rigorously.
- b) Road safety often appeared to be studied in isolation from the critical issue of designing for more pedestrian and cycle traffic.
- c) Engineering-orientated courses were considerably weaker when it came to critiquing the status quo or encouraging students to envision alternatives.

4. Diversifying routes into the transport profession

Routes into transport are well sign-posted for engineers, but are less clear for those from other disciplines. This paper argues that given the increasingly complex challenges in transport the transport profession now needs to attract a more diverse range of skills and individuals than before. Today's transport practitioners need to know not only how to design for 'motorway man', but also 'walking woman' and 'cycling child'.

Tiffany Lam (London School of Economics, UK)

Cycling London: an intersectional feminist perspective

London's "cycling revolution" has garnered international attention and increased the political salience of cycling. However, despite London's increased investment in cycling infrastructure, the rollout of the Superhighways and Quietways, and overall growth in cycling over the past decade, the gender gap remains unchanged whereby men make 74% of cycle journeys in the city. If London's cycling paradigm is to be regarded as a global prototype, then this gender gap must be critically examined. This paper adopts an intersectional feminist perspective—that analyses gender as a complex category that intersects with other socially-constructed categories of identity, such as race, sexuality, class, migrant status, etc.—and argues that London's cycling paradigm treats infrastructure as apolitical and a spatial fix for complex urban problems, and reflects an implicit androcentric bias. Consequently, London's cycling interventions primarily serve and raise the profile of already-visible privileged cyclists (white, middle-class men) for whom cycling is a lifestyle choice while further erasing "invisible cyclists" for whom cycling is an economic necessity due to social exclusion and spatial isolation. Equity and social justice must foreground cycling advocacy, policy, and infrastructure in an increasingly diverse London.

Giulio Ferrini (Systra Consultancy, UK)

Redefining Sustainability: cycle centric development

In London, transport policy has focused on shifting from car to public transport use by minimising car parking and concentrating development in areas of high PTAL rating. Whilst this has successfully made public transport the obvious mode choice for the majority of Londoners, it has increased commuter distances and discouraged active travel.

I will present census travel to work data from different areas in London (Hackney, Canary Wharf, Croydon, Battersea) to suggest that the current development model is unsustainable as it pushes residents further out of London, requiring continuous upgrades to the public transport network and contributing to the current inactivity public health crisis.

Is it more sustainable to build Crossrail, which allows employees to commute from Reading to Canary Wharf, or to build a high-quality network of segregated cycle lanes connecting Dagenham or Bromley to the Isle of Dogs?

I will suggest an alternative development model based on the propensity to walk or cycle. High-density development should be encouraged in areas within walking or cycling distance to work rather than as close as possible to a station.

In particular, development should be encouraged in areas of poor public transport connectivity within close proximity to employment centres, as this is where there is greatest potential for a switch to active travel. At these locations, we can build high-density cycle centric developments, with segregated cycling and running lanes, wide footways and a high-quality pedestrian environment that connect people's front doors to schools and workplaces.

By successfully integrating land use planning and sustainable transport infrastructure, cycle-centric development can provide a unique opportunity to increase population density whilst reducing the need to travel, alleviating pressure on public transport infrastructure and reducing healthcare costs through increased physical activity.

David Vale (University of Lisbon, PT)

A bicycle-friendly index as a tool to cycling promotion local policies: an application to Portugal

It is widely known that urban cycling contributes to better cities, promoting cleaner and healthier environments, more inclusive communities and safer and livable neighborhoods. In the last decade the Portuguese municipalities made some efforts to promote the use of bicycle, mainly by investing in bicycle infrastructure and bicycle sharing programs. However, in most of the cases, the investment is made without a proper strategy, and although cycling infrastructure is important and needed, other important aspects are normally neglected. In this paper, we propose to build a 'bicycle-friendly index' to evaluate the cycling environment of the municipalities, and with it, to guide policy interventions to promote cycling. In general terms, the index reflects components such as slope, density, connectivity and existence of cycling infrastructures but also modal share, land use mix, and public administration commitment, the last reflecting the amount of investment in cycling infrastructure and other associated measures. In order to be easily replicated yearly, we are using open data and publicly available data, such as openstreetmap and census data. Although the objective is to classify all Portuguese municipalities (around 300), we are starting our assessment by

focusing only on municipalities of the continent with more than 100.000 inhabitants, in order to validate the methodology. The index for 2016 shows significant differences between municipalities, not only reflecting the major differences in terms of modal share, but also highlighting the paths needed for each municipality.

Gergely Papp (PAD Foundation, HU)

Budapest Bike Equity

In the recent years large scale bicycle infrastructure developments and bike share network expansion is taking place in Budapest, Hungary, however, low-income neighbourhoods are not sufficiently involved in bike infrastructure planning. In these neighbourhoods socially marginalised, vulnerable and immobile residents' proportion is higher than the city's average. Conversely, on the relatively flat part of Budapest, the neighbourhoods that receive the most bike infrastructure are typically affluent neighbourhoods where the residents have more access to social capital. The impacts of this unequal distribution of resources are not only limited to mobility. Cycling provides quantifiable social, environmental and economic benefits to communities and individuals at almost every level. It significantly lowers individuals' and families' transportation costs, improves the physical health of residents, improves the environmental health of a city district, increases emotional well-being, and boosts the economy of low-income or struggling neighbourhoods, not to mention the interpersonal and social benefits of a strong biking community. The lack of accessible cycling infrastructure and possibilities in low-income communities is not merely a transportation issue, but actually prevents those communities from accessing the significant positive feedback loops of cycling, thereby exacerbating the social and economic inequalities between them and their higher-income counterparts.

The Budapest based PAD Foundation started to map the socio-spatial characteristic of the low-income neighbourhoods in and around the city centre in order to make suggestions to the Budapest public mobility manager company (BKK) – runs the bike share system (BUBI) – in their ongoing bicycle development plans. Mapping and discussing the hindering factors of such an attempt on the example of Budapest is important to make long-term sustainable solutions for equal access to public transport, which would be the topic of our presentation.

Thomas Humphries (Nottingham City Council, UK)

Nottingham Cycling and the politics of space

Forward thinking Cities around the world have embraced cycling and Nottingham wants to be a part of this. In May 2015 Nottingham City Council launched its Cycle City Vision with the aim of doubling Cycling by 2025 by delivering a world class cycle network to match its world class public transport system. Following on from increasing cycling levels through the Local Transport Programme and Local Sustainable Transport Fund, the City Council identified a need for a step change in levels of funding and infrastructure to achieve this target.

From the vision we have developed a programme of potential cycle corridors which could include reallocation of roadspace in order for them to be Coherent, Direct, Safe, Comfortable and Attractive to users. As the highway authority, we have sought to address this by producing our own design guide. This guide recognises that cycle corridors (for moving people

quickly with dedicated space) and cycle permeability (enabling access to jobs, goods and services) have different requirements in how they relate to a movement/place function.

The Nottingham Cycle City ambition programme has been the first delivery phase of the Cycle City Vision and includes four cycle corridor improvements to connect a number of key employment and learning destinations, all of which when finished will deliver space for cycling in different ways.

Cycling is now being integrated into other major projects including the redevelopment of the Broadmarsh area in the City Centre and Nottingham Enterprise Zone, both key economic development sites for the City.

The Broadmarsh work will change the way that motorised traffic crosses the City Centre by removing an environment currently dominated by motor vehicles into a transformed public realm and southern gateway.

The presentation will explore how space for cycling in Nottingham has been delivered whilst also ensuring the transport network considers how other modes of transport travel in the City.

Workshop

Mark Dimond (ITP Consultancy, UK)

Funding cycle network improvements: A Practical Guide

The DfT's Draft Cycling and Walking Investment Strategy articulates Government's aim to encourage widespread uptake in walking and cycling for shorter, everyday journeys. Supporting this, research evidence on the positive public health, air quality, traffic decongestion, and economic benefits associated with increased levels of everyday cycling is compelling – having been amassed over a number of years. Yet despite all this, relatively few UK towns and cities have been successful at implementing cohesive cycle route networks.

This presentation will provide a practical guide on how towns and cities can use existing tools, like the Propensity to Cycle Tool and WebTAG, and existing evidence bases on the impact of cycle interventions, to successfully design and fund cohesive cycle networks that meet the most-common patterns of urban movement. It draws on ITP's experience of working with Council officers in the East Midlands and South West England to help them secure over £25m of Local Growth Fund and DfT funding for strategic cycle network investments and complementary travel behaviour change interventions.

The presentation will interest anyone seeking to make the case for investment in cycling in their area.