



# COPENHAGEN

...from car domination to cycling city

Report of the symposium on Friday, 30 November 2012

















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## Introduction

In a symposium at the Building Centre on November 30<sup>th</sup> with over 200 delegates, proposals were formulated for taking the long road to achieving Copenhagen levels of cycling in appropriate parts of London. The symposium was organised by the London Borough of Ealing and URBED, with support from New London Architecture, and was sponsored by Berkeley First, the Danish Embassy, Peter Brett Associates and JMP. This report highlights the main messages, with images from the symposium. <sup>1</sup>



Pat Hayes, Executive Director of housing and regeneration, Ealing Council, welcomes delegates



Delegates take up the suggestion of arriving on bike, made easier with the help of cycle-hoop who provided the parking



Visiting speakers Niels Tørsløv, City of Copenhagen and Jeff Risom, Gehl Architects



Delegates pack into The Building Centre conference rooms proving cycling is a hot topic

<sup>&</sup>lt;sup>1</sup> For further information and statistics on cycling in Copenhagen please see <a href="http://www.cycling-embassy.dk/2012/05/10/cycle-concepts2012/">http://www.cycling-embassy.dk/2012/05/10/cycle-concepts2012/</a> and also the brochure, Copenhagen city of cyclists which was handed out in the delegate pack at the symposium <a href="http://velotraffic.com/wp-content/uploads/2011/07/bicycle-account-2010-copenhagen.pdf">http://velotraffic.com/wp-content/uploads/2011/07/bicycle-account-2010-copenhagen.pdf</a>



#### Cycling is good for you

**Julian Bell**, Leader of Ealing Council, is a recent convert but cycled 2012 miles last year. As a result he is far fitter (he lost a stone in weight), and gets places faster. He now wants Ealing to lead the way to making London 'a cycling city', which requires some dedicated infrastructure and a mind shift.

#### Cycling needs to be normal

Pat Hayes, Ealing's Director of Regeneration and Housing, argued for making cycling far safer and simpler in order to get ordinary people to use bikes for short trips where they currently use their cars. Only 2% of trips are by bike, largely due to fears for safety. He said cycling suits suburbs where orbital public transport is inherently poor, and where there is often road space, provided we changed our priorities. Cycle provision is still very patchy, despite some achievements like the 'Cycle hub' outside Ealing Broadway Station. Reducing car journeys would make suburbs much more liveable by improving the public realm and calming our town centres.



"The Barriers: cycling is not seen as a normal travel choice except by the cycling fraternity, fanatics and racer". (Illustration: Pat Hayes)



"In London the excuses are money, road space and attitudes" (Illustration: Pat Hayes)

#### Cycling in the suburbs

**Peter Murray**, Chairman of New London Architecture centre (NLA) spoke as someone who cycles in from Ealing almost every day, and as Hon Secretary of the Bedford Park Association. When suburbs were built over a hundred years ago, progressive people cycled, and this helped create the good life. Today they are car dominated. As half of all trips are under a mile, it makes sense to follow Continental examples, where bikes are used to get to school and for daily shopping, as well as for many people getting to work or the station. The whole of built-up London needs to be a 20 mph zone, and we should follow the Danish model of using parked cars to defend cyclists against trips.





"When the suburbs were built, progressive people cycle" (Illustration: Peter Murray)





"Inconsistencies make cycling unsafe such as cycle lanes which suddenly end" (Illustrations: Peter Murray)

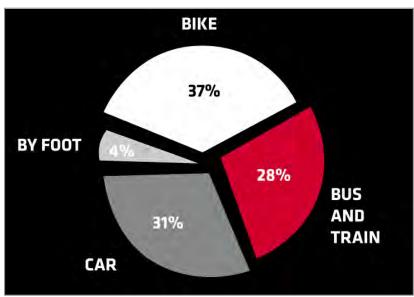


"A reduction in speed in the suburbs would make cycling much safer" (Illustration: Peter Murray)

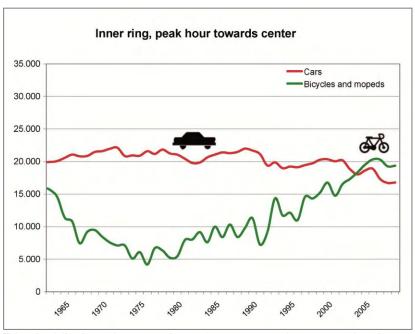


#### Copenhagen adopted a 'cyclists first' strategy

**Niels Tørsløv**, Director of Traffic Department for the City of Copenhagen showed how the City had turned itself into the capital of cycling by making it normal. The density of the two cities is similar, and Denmark has a harsher climate. Yet 37% of people get to work by bike, 50% of those living in Copenhagen, and 30,000 trips a day are made along the busiest routes. Furthermore 28% of young families have a cargo bike.



The Bike is the preferred mode of transport in Copenhagen (Illustration: Niels Tørsløv)



Trips by bike have increased over forty years as investment has been put into cycling (Illustration: Niels Tørsløv)

Like London, cars had taken over from cycling, which reached its lowest level in 1972. The oil crisis in 1980 caused a shift in thinking, with the first cycle track installed in 1981. The city invests £18 million a year, and this pays off, as economic studies have proved, helping to make Copenhagen one of the world's favourite cities. The reasons why people cycle are straightforward; 88% say it is quick and easy, 32% do it for exercise, 29% because it is cheap, and only 9% because it is environmentally friendly.

The City has progressively adopted higher environmental standards, (the main shopping street Stroget was pedestrianised in the 1960s) and is now aiming for 50% of trips by 2015 as part of achieving a carbon neutral city by 2020. 22 authorities are now collaborating on promoting long-distance commuting (10-20 kilometres) on 26 routes, with measures such as bridges over busy roads, and turning main roads into streets by taking space away from cars. 'Cycling brings human beings onto streets, and is fundamental to city life'.

Innovative ideas include planning the new town of Orestad (which financed the metro) as the 'five minute city' where everything is close at hand, smart phone apps to get quick reactions, 'green waves' through traffic lights as there is safety in numbers, and 'appreciative design' to make cycling as easy as possible.

The benefits of cycling are endless. In Copenhagen, "When a person chooses to cycle - this is a **gain** for society of **DKK 1.22** per cycled kilometre. Conversely, society suffers a net **loss** of **DKK 0.69** per kilometre driven by car." Additionally, the net health impact is 4.72 DKK per KM or 1.7 billion DKK per year.







(Illustration: Niels Tørsløv)



Niels concluded by outlining Copenhagens recipe for success:

- Personal political dedication is crucial
- Dedicated leadership in the administration is crucial
- Build a showcase testing and experimenting are the vitamins for real changes
- Take specially care of intersections and crossings
- Choose signature projects that communicates the idea of a human scaled city
- Aestetics matters! If it doesn't feel right it won't work....
- Provide credible documentation and ongoing monitoring
- Make investments for the next cyclist

#### Cycling helps make a city great

**Jeff Risom**, Associate, head of Institute, Gehl Architects, showed that it is the interaction between urban form and life that makes some places lively while others become unsafe and deserted. He illustrated how the model Copenhagen pioneered is being successfully transferred to other cities. The problem is essentially about people, not technology, and requires coexistence; 75% of motorists in Copenhagen are also cyclists so they know to watch out. Sociability, mobility and the quality of the environment are closely linked. A good example is Brighton New Road, which has been turned into a Shared Surface.





"Brighton New Road before and after. The result was a 93% reduction in motorized traffic, car speeds fell to <13mph, 22% increase in cycling, 150% increase in pedestrian activity and a 600% increase in lingering activity. Success is attributed to systematically analyzing sociability, mobility and the quality of the environment together." (Illustrations and statistics: Jeff Risom)

A City need not copy Copenhagen exactly; rather, follow the same recipe to succeed. Gehls Architects suggests a City define its own design in accord with four simple steps:

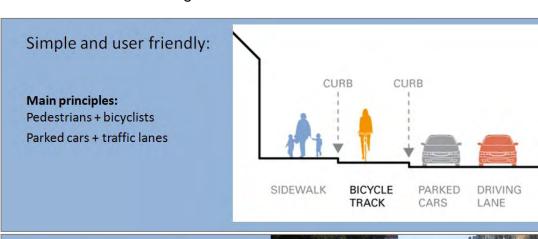
1. **It's about people:** Prioritize the user and how they make decisions. This is as much about politics and culture as it is about technical solutions.



- 2. People first design does matter: The 4 C's in bicycle mobility.
  - a. Consistent (a single model)
  - b. Connected (in the places where most people want to be)
  - c. Continuous (integrated but never finished)
  - d. Comfortable (details such as sheltered bike parking or foot-rests at intersections)
- 3. Forge Partnerships: Enable champions across numerous agencies, disciplines, stakeholders
- 4. Measure, test refine:
  - a. Establish a base case
  - b. Test in scale 1:1 pilots
  - c. Refine the design based on opportunities and obstacles to human behavior
- 5. A bikeable city is a livable city; improving cycling as a means not an end.

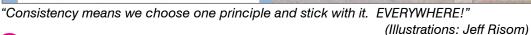
As outlined above, partnerships must be forged, and as cycling cuts journeys to work (only 50 minutes a day), there is more time for socialising which makes people happier. Cycle ways provide 90% of the capacity of a roadway for 1.3% of the cost. Significantly studies show that children who bike to school learn better regardless of whether they have had breakfast!

Finally it is essential to measure, test and refine. The project for Time Square in New York started by showing it was not a square, then transforming it through pilot projects so the car no longer dominated, with access still allowed but not through traffic. 'A bikeable city is a livable city, and people change not when you tell them to but when the context is right'.





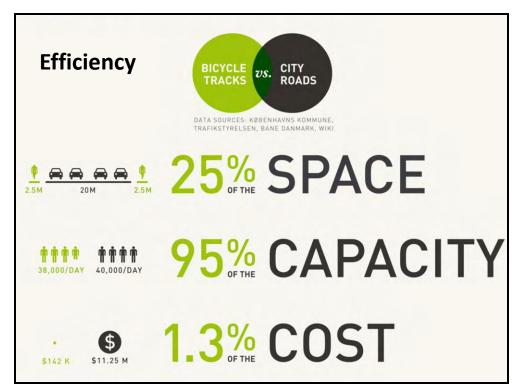






People first design: if the pizza box doesn't fit, don't try to stop people eating pizza. Simply, design a new rubbish bin. "Show rather than tell".

(Illustration: Jeff Risom)

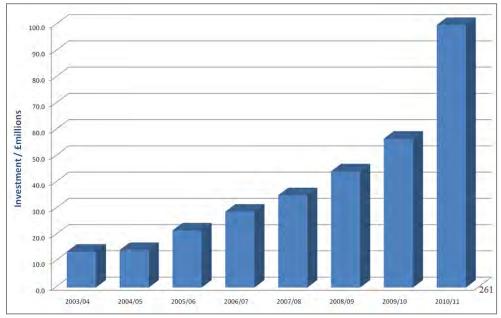




"Copenhagen has proven the efficiency of Bicycle tracks and the same model has been transferred to New York" (Illustrations: Jeff Risom)

#### London has a long way to go – but is on its way

**Ben Plowden, Director** of Planning, Transport for London, showed how the resources for cycling were being greatly increased, and the timing is now right for a major shift. Though London started off far behind other cities, cycling is now growing at the same rate it did in Amsterdam. We need to get above the threshold where cyclists are generally visible. As well as short hops in Central London, where cycle hire has really taken off, the priority is now shifting behaviour in Outer London for both commuting and local trips. There need to be a package of measures to build, support and promote cycling.



TfL investment in Cycling (Illustration: Ben Plowden)

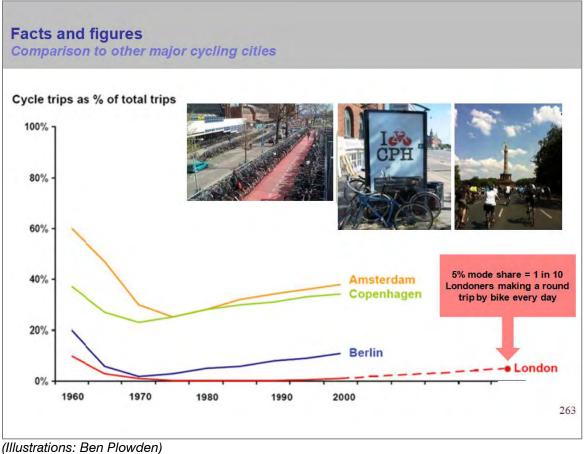


"I believe that the cycle-ised city is the civilised city", Mayor of London Boris Johnson:

"The aim is a 400% increase in cycling by 2026". (Illustrations and figures: Ben Plowden)



## **Facts and figures** Current cycling levels in London **540,000** cycle trips now made in London per day 350 300 Periodic index: March 2000=100; Annual index: 2000/01=100 23% of Londoners 250 cycled in the last year 200 100 50 2000/01 2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09 2009/10 2010/11 2011/12 -Periodic index -Annual index 35% of households 173% increase in cycling on London's main roads own a bicycle (8% between 2000/01 and 2011/12. increase over one year)





## There are plenty of practical steps to take

The panel responded to a range of questions, and their responses highlighted some steps forward:

- Parking cars at angles could replace places lost to cycle lanes.
- Cycle parking facilities are needed in shared areas such as More London and East Croydon Station (which means overcoming architects' and landlords' objections.)
- Nuisance from construction lorries can be reduced through deliveries out of peak hours
- Suburban town centres need to be linked up through collaboration between boroughs
- Cycling is popular in the suburbs of Copenhagen and 25% of trips between 6-10 miles are by bike, and all children learn to ride a bike with safer routes to schools
- Access by bike can affect property values by making areas more accessible, and Copenhagen uses
  pilot projects to test out the impact of giving more space to cyclists and shops on routes into the city
  centre
- Long-term plans as well as short term actions are needed to build confidence, and events can be used to see what it would be like to exclude cars, as in New York if it feels great and it is fun, you go for it.

## Feedback from the workshops raised some key points

**Ed Watson** of Camden Council reported on cycling in Camden and said the infrastructure had evolved and now needed refreshing in some parts. Major schemes to make Tottenham Court Road and Gower Street two ways could transform the experience of moving around in Central London. However the system for bringing about improvements is very complex.

**Mark Ames** from ibikelondon explored what it might take to convince your Nan to ride a bike. If London is to achieve a much higher cycling rate then many more people will need to decide that cycling is a safe thing for them to do; including more women, older people and children. Whilst targeted training is useful, the workshop concluded that separated cycling infrastructure suitable for all abilities of cyclists was the missing link on London's busiest roads.

**Robin Hickman** of UCL reviewed opportunities around Ealing Broadway station, and argued that values need to change so that pedestrians and cyclists get priority in town centres. Ealing should live up to its former claim of 'Queen of the suburbs' and make the area exemplary. This means reducing traffic capacity and testing out good practice from Copenhagen and elsewhere, such as the Walworth Road in Southwark, which has been transformed.

**Ben Plowden** from TfL focused on making streets work said that street design needs to reflect competing functions and a typology of roles. Design should be fit for purpose. Political leadership is needed, backed up by bureaucrats, to tackle places that clearly do not work.

**Kathryn Firth** at LLDC looked at designing places for the future and said that the aim should be to provide greater choice so everyone feels comfortable. Signs should be avoided by designing places so it is obvious what behaviour is appropriate, for example slowing down in a park. The priority is to sort out junctions and reallocate space.



**Tim Hapgood and Thomas Derstroff** from JMP explored whether it was best 'to share or not to share' and reported that most of the group favoured segregation. However it should depend on volumes. A priority was to turn roundabouts into crossroads where possible (as has been done in Denmark), to make turning safer and easier for cyclists, and crossing easier for pedestrians.

#### Conclusions

In conclusion to the symposium Pat Hayes thanked all who had made the event possible, and said that URBED were producing a report that would try to summarise the main conclusions.

Three points from the symposium stand out in particular:

- 1. The challenge is now to use the significant budget allocated to cycling in London to make a visible difference, and hence shift attitudes and behaviour
- 2. It is vital to match what is being achieved in parts of Central London with action in key suburban centres, such as Ealing, in order to shift people out of their cars
- 3. This requires significant demonstration projects that can be monitored and publicised, as in Copenhagen. It also requires some risk taking on the part of transport engineers and local politicians.

The same day the Mayor of London announced a major investment programme for cycling, so the timing should be right for a step change. This report, and the findings from the Copenhagen cycling study tour (See Appendix D), should therefore be used to help make cycling normal in London as part of wider efforts to create 'living suburbs'.



## **Delegate list**

Simon Hall	A2dominion
Andy Rogers	Andrew Rogers: Planning
Annabel Downs	Annabel Downs
Amanda Reynolds	AR Urbanism
Riccardo Bobisse	AR Urbanism
Roya Jodieri	Arup
Robert Sakula	Ash Sakula
Felicie Krikler	Assael Architecture Ltd
Kieran Ward	Atkins
Simona Dobrescu	Atkins
Ben Gutierrez	Avenue Bicycles
Nicole Pinch	Avenue Bicycles
Alex Macmillan	Bartlett School of Graduate Studies, UCL
Gualtiero Bonvino	Bartlett School of Planning ,UCL
Anna Nasalska	Bartlett School of Planning, UCL
Bruce McVean	g,
Michael Foster	Beyond Green
	Brompton Dock
Ruth Hardy	Brompton Dock
Marie Burns	Burns and Nice
Richard Bourn	Campaign for Better Transport
Richard Hebditch	Campaign for Better Transport
Rosie Tharp	Canal & River Trust
Sarah Boyd	Cazenove Architects Ltd
Niels Toersloev	City of Copenhagen
Craig Stansfield	City of London
Azhar Azhar	Conran and Partners
David Hennings	Consultant
Liz Wrigley	Core Connections
Michael Hill	Countryside Properties
Darren Reynolds	Creativetype
Matthew Noon	Cross River Partnership
Graham Smith	CTC
Philip Benstead	CTC London
Andrew Ratcliffe	Cycle Hoop
Anthony Lau	Cycle Hoop
Habib Khan	Cycle Hoop
Neil Webster Anne Hedensted-	Cyclo Consulting
Steffensen	Danish Embassy
Peter Krause	Danish Embassy
	East & South East London
Julian Sanchez	Transport Partnership East & South East London
Qasim Shafi	Transport Partnership
Esther Caplin	Edith Neville School
Ashok Bhavnani	Elemental Junction
Ria Bhavnani	Elemental Junction
Richard Marfiak	eRchitecture
Colin Brown	FIA
Francis Moss	FM
Martin Short	Foggo Associates
Richard Constable	Foggo Associates
	-

Axel Kubitz	FoRM
Jeff Risom	Gehl Architects
Gerald Koessl	Goldsmiths Univ. of London
Camilla Ween	Goldstein Ween Architects
Mike Martin	grontmij
Claudia Scholz	HTA Landscape Design
Mark Ames	ibikelondon
Beckie Crane	Illustrious Company
Martyn Ware	Illustrious Company
Bill Mount	Imperial College
Jill Borten	Jerwood Space
Tim Hapgood	JMP Ltd
Tom Derstroff	JMP Ltd
Jon Neale	Jones Lang LaSalle
Robert Offord	Kent Architecture Centre
Mel Cazzato	LB Bromley
Steven Heeley	LB Bromley
David Cohen	LB Camden
Bob Casteliin	LB Ealing
Christian Derix	LB Ealing
Julian Bell	LB Ealing
Noel Rutherford	LB Ealing
Pat Haves	LB Ealing
Hanna Salomonsson	LB Enfield
Martin Jones	LB Enfield
Chris Bainbridge	LB Hammersmith & Fulham
Chris Bainbridge	LB Hammersmith & Fulham
Graham Burrell	LB Hammersmith & Fulham
Simon Franklin	LB Hammersmith & Fulham
Richard Truscott	LB Haringey
Amandeep Kellay	LB Havering
Chris Calvi-Freeman	LB Hounslow
Jason Newton	LB Kensington and Chelsea
Andrew Judge	LB Merton
Chris Chowns	LB Merton
Howard Albertini	LB Slough
Jillian Houghton	LB Southwark
Charlotte May	LB Waltham Forest
Alistair Taylor	LB Westminster
Roger Stocker	Lewisham Cyclists
	London Cycling Campaign in
Oliver Schick	Hackney
Chandra Southall	London Green Cycles
Roman Magula	London Green Cycles
Kathryn Firth	LLDC
Anna Bray-Sharpin	London School of Economics
Catarina Brito	London School of Economics
Kathleen Scanlon	London School of Economics
Brian Q-Love	Love Architecture Ltd
Justinien Tribillon	LSE
Melissa Meyer	LSE



Carina Arvizu-Machado	LSE Cities
Peter Treadgold	Maines
David Patterson	Make
James Avery	Manifietso
Frances Madders	Medway Council
Peter Murray	NLA
Marie Blackman	nu-ne-lah design consultants
Julia Day	Open Streets
George Daugherty	PBA
Philip Cave	Philip Cave Associates
Paul Clark	PINS
Lewis Eldridge	Place Practice
Sam Appleby	PLACE PRACTICE
Francesca Morrison	Polis Design
Elizabeth Moore	Prentice Moore
Khrystyna McPeake	Prince's Foundation
Laura Georgescu	Prince's Foundation
Andrew Stuck	Rethinking Cities Ltd
John Tracey-White	RICS
Robert Tensen	Robert Tensen Urbanism Ltd.
Petra Havelska	Solidspace Ltd
Colin Hartridge-Price	Southwark Cyclists
Imke Bagde	Sprunt.
Martin Ebert	Studio Meda
Charles Martin	Sutton Living Streets
Mirek Witkowski	TeNGA
Miles Price	The British Land Company
Ben Fieldhouse	The Means
Giles Gibson	The Original Thinking Group
James Mackay	The Warwick Society
Ben Plowden	Transport for London
Henriette Lund	Transport for London
Robin Buckle	Transport for London
Simon Bradbury	Transport for London
Mark Strong	Transport Initiatives

Christian Spencer-Davies	UCL
Rob Hickman	UCL
Ulf Vollmer-Koenig	United Architecture
Steven Smith	Urban Narrative
Jessamy Bousie	URBED
Nicholas Falk	URBED
Nivedita Vijayan	Urbis
Frank Vickery	V Property Consultants Ltd
Mark Bradbury	Vertical Thinking Limited
David Beamont	Victoria Business Improvement District
Arthur Breens	West Ealing Neighbourhood Forum
Colin Wing	Westminster Cycling Campaign
Ross Corben	WestOne
Tim Forrester	WestTrans
Cara Wisman	WiseHaus
Sarah Wixey	WYG
Yang Cheung	Yoh designs
Ben Kochan	
Christopher Wise	
Dave Holladay	
David Tannahill	
James Mackness	
Jeremy Parker	
Joyce Bridges	
Karine Dana	
Khulood Nasaif	
Maria Hadjinicolaou	
Maria Tomalova	
Matt Senior	
Paul Disney	
Peter Chauncy	
Robert West	



## **Appendix A: Programme**

08.30	Registration	11:00 Coffee break
09:00	Opening words Julian Bell, Leader, Ealing Council	11:30 Workshops in the following groups:
09:10	Welcome and aims	Workshop 1: Camden on two wheels - A bicycle ride of Camden. Ed Watson, Assistant Director Regeneration and Planning, Camden Council
	Pat Hayes, Executive Director of Regeneration and Housing, London Borough of Ealing	Workshop2: "Every day and ordinary cycling - how do you get your Nan to ride a bike?"  Mark Ames, I Bike London
09:20	What makes a good suburb? Peter Murray, Chairman, NLA, and secretary of the Bedford Park Association	Workshop 3: Ealing Broadway - Applying good practice. Rob Hickman, Senior Lecturer, Bartlett School of Planning, UCL
		Workshop 4: Making streets work. Ben Plowden, Director of Planning, TFL
09:40	How we did it in Copenhagen? Niels Tørsløv, Director of Traffic Department, City of Copenhagen	Workshop 5: Designing places for future. Kathryn Firth, Chief of Design, London Legacy Development Corporation
10:00	Transferring the model Jeff Risom, Associate, Head of Gehl Institute	Workshop 6: "To Share or Not to Share". Tim Hapgood and Thomas Derstroff, Principal Transport Planners JMP Consultants Limited.
10:20	Response from Transport for London	12.30 Feedback by workshop leaders
10.20	Ben Plowden, Director of Planning, TFL	13.00 Close
10:35	Panel Discussion	

## **Appendix B: Workshop descriptions**

#### Workshop 1:

#### Camden on two wheels - a bicycle ride of Camden

Led by Ed Watson, Assistant Director Regeneration and Planning, Camden Council

This workshop will be a 1-hour bicycle tour of Camden which will highlight some of the unique challenges to a central city borough and show some of the original measures introduced to get people cycling as well as some more recent initiatives. You will see what developments are taking place in Camden to create a more liveable suburb. Please note that attendees who wish to take part in this workshop MUST provide their own bike.

#### Workshop 2:

Everyday and ordinary cycling - how do you get your Nan to ride a bike? Led by Mark Ames, Editor, ibikelondon

As the makeup of people living in cities change, so must our streets. How will we meet the challenge of more women, more children and more elderly people riding bicycles where we live, work and shop, and how can we convince these people to ride in the first instance? This workshop will explore the



idea that cyclist safety and the built environment go hand in hand, and the idea behind what makes an equal city, where even your Nan could ride a bike.

#### Workshop 3:

#### Ealing Broadway - applying good practice

Led by Rob Hickman, Senior Lecturer, Bartlett School of Planning, UCL

Ealing Broadway is an example of a suburban location that faces the challenge of a lack of space for segregation. Given the constraints, what are the options? Dutch, German, Danish approaches? This workshop will introduce you one example of how cycle routes could be put into Ealing Broadway and will explore a series of other possible options as well. You will expand to discuss how town centres and transport hubs can be reconstructed to favour cyclists and pedestrians and cut congestion and also how this can be financed.

#### Workshop 4:

#### **Making streets work**

Led by Ben Plowden, Director of Planning, TfL

The street, something we use every day, but what does it mean to make a street work? Ultimately what do we want our streets to achieve? By means of this workshop you will explore the characteristics of streets that work versus those that don't and will examine whether the same criteria apply in every location. Vegetation, traffic speeds, signage and clutter; do these things matter? How do good streets enhance the character and vitality of the community they serve? You will identify the variables, categories or types of street as well as the obstacles and opportunities.

#### Workshop 5:

#### **Designing places for future**

Led by Kathryn Firth, Chief of Design, London Legacy Development Corporation

Roads aside, what design aspects need to be included in new developments in order to support a cycling culture? In this workshop you will consider a day in the life of a resident of Queen Elizabeth Olympic Park. How will they move around? What options do they have? How will they leave a bicycle in different places such as the home, school, the station, shops? How does this affect different categories of residents such as parents, commuters, and people of varying financial means? You will expand your discussion to consider how new residential and commercial developments in general can lead the way in providing for cyclists and yet remain connected with existing areas of the city.

#### Workshop 6:

#### To Share or Not to Share – can we all have a piece of the road?

Led by Tim Hapgood and Thomas Derstroff, Principal Transport Planners, JMP Ltd

What are the advantages and disadvantages of sharing infrastructure? What are the grey areas? Using both a suburban and central London location you will examine aerial photographs and put yourself in the shoes of the designer. What are the different design solutions; "is it best to share, or not to share"? Do the solutions differ depending on the location? This workshop will tease out design principles in an interactive manner and will explore experiences and views on segregation, shared infrastructure and "Go Dutch" principles.



## **Appendix C: Biographies**

Julian Bell Leader of Ealing Council



Julian Bell has lived in Ealing for 25 years, arriving after his final year at Bath University where he read Politics and Economics and during which time he met his wife. Julian has been interested in politics since he was a teenager, but became actively involved in 1992. He first worked for the Labour Party in 1994 and ran several election campaigns. In 2002 Julian was elected as a councilor in Ealing. He is now serving his third term. In addition to being Leader of the Council, Julian works for the MP of Ealing Southall, Virendra Sharma and spends two days a week at the House of Commons or at his constituency office

Pat Hayes Executive Director of Regeneration and Housing Ealing Council



Pat Hayes has been Ealing's Executive Director for Regeneration & Housing since 2007. At Ealing, he is in charge of Town Planning, Building Control, Transport Policy, Community Safety, Environmental Health & Trading Standards, Regeneration, Economic Development, Property and Housing. Pat has developed and supported schemes in the borough to improve cycling infrastructure and promote cycling as a normal mode of transportation. Pat is an active cyclist and rides in BC open events at Higg Hill and Hillingdon on a regular basis.

Peter Murray Chairman NLA



Peter Murray is chairman of NLA, London's Centre for the Built Environment. He lives in Bedford Park - the first garden suburb - and is Deputy Chairman of the Bedford Park Society. He is also a keen cyclist and in 2013 he will be riding from Portland Oregon to Portland Place studying cycling infrastructure in cities in the US and UK.

Niels Tørsløv Director of Traffic Department The technical and Environmental Administration City of Copenhagen



Niels Tørsløv (born 1959) has a background as Landscape Architect (1987) and has since 2003 been Director of the Traffic Department in the City of Copenhagen. Before that he has worked at the Danish national Road Directorate and became head of their Department of Traffic Safety and Environment in 2000. Niels Tørsløv is chairman of the OECD/JTRC Working Group on cycling safety.

Jeff Risom Associate Head of Gehl Institute Copenhagen



As Head of Gehl Institute, Jeff Risom leads the Research and Development team at Gehl Architects. Jeff holds an MSc in City Design and Social Science from the London School of Economics and a BS in Architectural Engineering from the University of Colorado, in the US. This educational background and international design experience that combines the arts and sciences, provides Jeff a unique insight into the technical as well as social aspects of urban design. Jeff is currently leading urban design projects in San Francisco and Moscow in the City's Museum Quarter. Jeff is also an active teacher and guest critic at Harvard Graduate School of Design, the Integrated Design Studio at University of Pennsylvania, the Cities Programme at London School of Economics as well as at the Royal Academy of Fine Art in Copenhagen.

**Ben Plowden**Director of Planning
Transport for London



Ben Plowden has extensive experience of the workings of both national and local government, both from the "outside" as an environmental campaigner and from the "inside" as a senior director at Transport for London (TfL). Ben is currently Director of Planning, Surface Transport at TfL, a position he has held since 2011. Ben's responsibilities include providing the overall strategic direction for Surface Transport and delivery of cycling, walking, public realm, road safety, freight and bus priority. Before joining TfL, Ben was one of the country's leading environmental campaigners, ending up as the first paid Director of the Pedestrians Association.



**Ed Watson**Assistant Director, Regeneration and Planning
Camden Council



Ed has been working in Local Government planning for over 20 years and since January 2009 has been the Assistant Director for Regeneration and Planning at Camden. He leads the multi-disciplinary Regeneration and Place Shaping teams working amongst other things on Camden's Community Investment Programme - an ambitious plan to maximise the contribution Camden's assets make to place shaping. Prior to this he worked for the LGA/IDeA as a Programme Manager for the Planning Advisory Service (PAS) supporting the introduction of the Spatial Planning System. He has a daily 20 mile round trip bike commute from Crystal Palace to Kings Cross.

Mark Ames Editor Ibikelondon



Mark Ames is the editor of ibikelondon and has been writing about riding a bike in London for four years. In 2012 he fired the starting gun for the "Love London, Go Dutch Big Ride" setting off 10,000 cyclists calling for roads in London to be made as safe for cycling as they are in the Netherlands. He's appeared on television; online and in print talking about bicycle safety and in 2012 was invited to Oxford University and the Houses of Parliament to talk about everyday and ordinary cycling.

Robin Hickman Senior Lecturer UCL



Robin is a Senior Lecturer in Transport Planning and the City of the Bartlett School of Planning (BSP), University College London. He is a specialist in transport and climate change issues, urban structure and travel, integrated transport and urban planning strategies, the management of major multi-disciplinary projects, and has a keen interest in cycling. He is a frequent speaker at conferences on transport planning issues.

Kathryn Firth Chief of design London Legacy Development Corporation



Kathryn Firth is the Chief of Design at the London Legacy Development Corporation and urban designer with over 25 years of experience working on a variety of projects. Prior to this appointment she was Director of Urban Design at PLP Architecture. Kathryn has worked on a range of masterplanning and urban regeneration projects in the US, Europe, the Middle East and the UK. They include projects in sensitive heritage contexts such as the Somerset House masterplan and courtyard redesign in London, and a masterplan for the redevelopment of Covent Garden in London's West End.

**Tim Hapgood**Principal Transport Planner
JMP Consultants Ltd



Tim is a Transport Planner who has worked for both Local Authorities and in consultancy. Tim has a broad range of experience from policy and strategy development including Smarter Choices, cycling and urban freight management through to development planning and control. He is also a qualified project manager. Through his experience Tim understands the needs of both cyclists and goods vehicles in the urban environment and being a keen commuter cyclist in London he also has firsthand experience of, and appreciates, the often conflicting priorities between the different road users

**Thomas Derstroff**Principal Transport Planner
JMP Consultants Ltd



Thomas' broad-based background, including over seven years experience in the UK planning industry, gives him a strong understanding of the critical relationships between transport, land use planning and urban design. At JMP he splits his time between development planning projects and streetscape improvement schemes located in London. Thomas has also worked on a transport strategy for the Uxbridge Road corridor in support of the Ealing Development Framework. His daily ride from the London suburbs provides him with another perspective on current cycling issues, urban and suburban, in London.



## **Appendix D: Transport tour to Copenhagen**





## STUDY TOUR COPENHAGEN

WEST LONDON TRANSPORT PLANNERS LEARN FROM DANISH CYCLING & TRANSPORT INITIATIVES

**REPORT OF OBSERVATIONS** 

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#### Front cover Images:

Top left – Cycling for all ages
(www.flickr.com/photos)
Right – Green; Copenhagen's favourite colour
(www.cruisecopenhagen.com)





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#### **Lessons from COPENHAGEN**

## Report of the Study Tour 01- 02 November 2012

#### **Overview**

This report aims to summarize a recent study tour to Copenhagen which was organized to enable engineers and planners working in West London to see what Copenhagen has achieved, and to discover how elements can be replicated.

Over the past couple of decades Copenhagen has not only won awards as one of Europe's greenest cities by reducing carbon emissions, but also is classed as one of the most attractive to visit. Much of the appeal stems from work by the City Council to make the streets safe and attractive to walk and cycle. These apply many of the ideas put forward by Jan Gehl, Professor of Urban Design, whose consultancy practice is based in the City, such as treating a street as if you were a guest at a party. Cycling now accounts for 37% of trips to work in the city, and the goal is to raise that to 50%. Many residents own a number of bikes, which they use to reach the train, and trains and offices are designed to make cycling easy.

What the group discovered was that almost all of Copenhagen's segregated cycle tracks and painted cycle lanes have been made on a politically approved project and budget. The last few years the annual budget has included a bicycle package of around 10 million Euros with a list of specific facilities in the city that has to be delivered. On top of this there are usually also other infrastructure investments that include bike facilities. For example, during the last 10 years, three cycling bridges have been financed.

In the dense part of the city and on the busy cycle routes the Danes prefer to build the segregated Copenhagen design with a raised kerb towards car traffic and also a raised kerb towards pedestrians (see Figure 1 below). This design is of course more costly – but it is also much more effective in attracting cyclists. The philosophy is that you have to build cycle facilities, not just for existing cyclists, but for the not already convinced users. This is backed by the belief that the high perceived safety and comfort on a segregated solution will attract more users and be worth the money if the potential is there.

On less busy routes the Danes sometimes introduce painted bike lanes such as in Artillerivej. Often these are on the list in the initial budget "bicycle package" and changed into segregated solutions within a few years. This happens because whilst painted lanes work reasonably well, they do not really offer the comfort and safe-feeling that the more sensible bike-users are asking for.

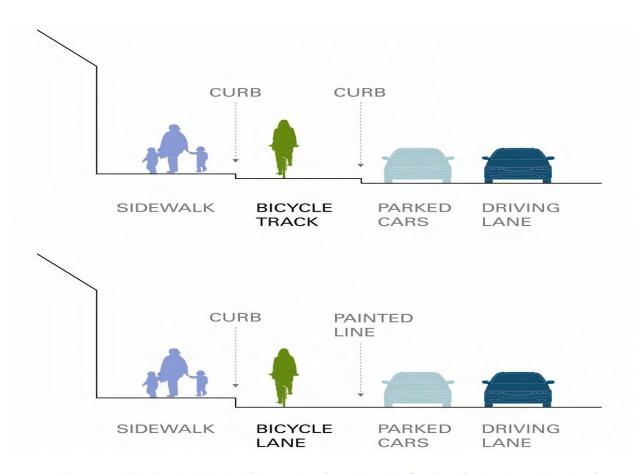


Figure 1 - The Danish Model (Illustration from Danish Cyclists federation slideshow)

#### 1. Where does London stand?

- a. Aspiration to be a 'leading world city'
- **b.** Quality of life and mobility are key
- c. Commitment to 'cycling superhighways'
- **d.** Enjoying boost in cycling popularity on the back of Olympics and high profile 'superstars' such as Bradley Wiggins
- e. Yet as a normal mode of transport cycle mode share in UK lags far behind Europe
  - i. (UK 1.5%, Sweden and Finland 9%, Germany 10%, Denmark 18%, Netherlands 26%)
  - ii. London lags far behind Copenhagen (2% vs. 37% conurbation, and 59% in the centre)
- f. The challenges lie in the suburbs
  - i. Relatively low population densities
  - ii. Car dominated life styles
  - iii. Poor orbital public transport routes
  - iv. But most trips are quite short
- g. The obstacles are known
  - i. London Cycling Campaign's vision is to create 'world-class cycling city'
  - **ii.** Yet people think cycling is 'Unsafe, unwelcoming, too much effort, abnormal' (*Understanding walking and cycling*, EPSRC)
  - iii. Lots of negative press over cycle deaths in London

#### Cycle trips as % of total trips

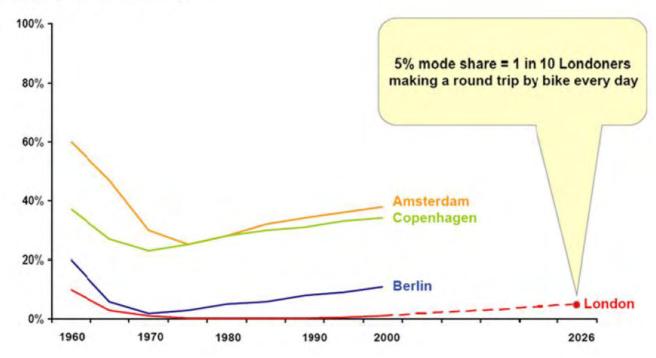
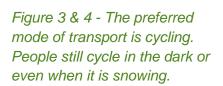


Figure 2 - London compared to other European cities (Illustration TfL)

#### 2. Why look to Copenhagen?

- a. Main city in Denmark with 1.8m residents in Greater Copenhagen and most of the new iobs
- b. Environmental capital e.g. 65% of homes are on district heating
- **c.** Voted top city in the world to live (with Vancouver)
- d. Since 1968 held car use constant, while boosting cycling
- e. 'Cities for people' and Project for Public Spaces
- **f.** Project started in 1962 by pedestrianising part of Stroget (foot traffic accounts for 80% of movement in the inner city)
- g. Parking progressively removed and space given to people
- h. Now closely linked to Sweden and the Oresund Region
- i. Inspiring other cities e.g. Odense, New York





(Top Illustration; Nick Falk, URBED

Bottom Illustration: Jeff Risom, GEHL Architects)





Figure 5 & 6 - Cycling for everyone from parent with children to the visiting tourist (Illustrations Nicholas Falk URBED)

#### 3. How has cycling been made 'normal'?

- **a.** Cycling is for everyone e.g. shopping with 'cargo bikes' (25% of families), getting to school, commuting, enjoyment
- **b.** People cycle in Copenhagen because it makes more sense for them
  - iv. Easy and Fast 55%
  - v. It's more convenient 33%
  - vi. Healthy 32%
  - vii. Financial reasons 29%
  - viii. Good way to start the day 21%
    - ix. Shortest route 10%
    - x. Environment 9%

**Copenhagen City of Cyclists Bicycle Account 2010** was given to the group by the Cycling Embassy on tour. The document highlights the following main points<sup>1</sup>:

- a. Streets and public spaces enrich 'common wealth' and lifestyles
- **b.** Cycling is promoted as a 'selling point' for the City

<sup>&</sup>lt;sup>1</sup> A PDF version of this document can be downloaded at http://www.cycling-embassy.dk/2012/05/10/cycle-concepts2012/

- **c.** 'A bicycle friendly city is a city with more space, less noise, cleaner air, healthier cities and a better economy' City of Copenhagen Bicycle Strategy
- d. Sixteen municipalities are working together to create Cycle Super Highways

## 4. What does Copenhagen do better?

a. Ample cycle lanes protected by kerb side parking



Figure 7 - Priority (Illustration: Simon Franklin, LB Hammersmith and Fulham)

b. Raised cycle tracks along main roads



Figure 8 – Raised tracks(Illustration: Nicholas Falk, URBED)

c. Routes through parks



Figure 9 – (Illustration: Niels Tørsløv, City of Copenhagen)

d. Priority at junctions



Figure 10 – The bike has priority. (Illustration from Copenhagen City of Cyclists Bicycle Account 2010 pg 67)

e. Motorists give way



Figure 11 - (Illustration: Simon Franklin LB Hammersmith and Fulham)

f. Consistently smooth surfaces



Figure 12, 13 - Rainwater gullies built into the curb to create a smoother, more bikeable path (illustrations from Copenhagen City of Cyclists Bicycle Account 2010 pg 66)

g. Attractive pavements



Figure 14 - (Illustration: Nicholas Falk, URBED)

h. Integrated with other modes



Figure 15 - In Copenhagen it is easy to take your bike on the train (Illustration; Jeff Risom, Gehl Architects)



Figure 16, 17, 18, 19 - (Illustrations Niels Tørsløv, Director of Traffic, Copenhagen City)

Promotion and support e.g. Cycling Embassy 'Come Out and About' Cycling Map



Figure 20& 21 - (Illustration: Nicholas Falk, URBED)

k. Starting at primary school



Figure 22 - (Illustration Niels Tørsløv, City of Copenhagen)

I. Gritting in winter prioritizes cyclists



Figure 23 - (Illustration: Niels Tørsløv, City of Copenhagen)



Figure 24 - Amargatorv square – bikes everywhere! (Illustration: thenational.ae)

n. Lots of dialogue in planning changes



Figure 25 - The group visits the Cycling Embassy (Illustration: Nicholas Falk, URBED)



Figure 27 - The group visit Gehl Architects (Illustration: Nicholas Falk, URBED)

#### 5. What are the lessons for London?

- **a.** Start with a common challenge e.g. accident rates
- b. Promote a strong vision e.g. 'eco metropolis' and liveable cities
- c. Ensure municipal leadership e.g. global ambitions
- d. Use an incremental approach over many years e.g. gap filling
- e. Run experiments backed up with evidence e.g. turning main roads into streets
- f. Show visible results e.g. traffic lights for cyclists
- g. Join up development and infrastructure e.g. Oresrad new town and the Metro
- h. Introduce innovative funding e.g. land taxes
- i. Seek to improve planning process and reduce over reliance on impacts to road network where enhancement to overall urban environments should be the key
- j. Dedicated investment in road surfaces make cycling safer and more enjoyable
- **k.** Wider education to all road users to lead to a culture change in how cyclists are viewed and treated is needed
- I. Review road user priority? This could include trialing cycle 'green waves'

#### **Observations**

The following table outlines comments from Nick O'Donnell, Assistant Director - Strategic Transport, London Borough of Ealing, in response to some of the observed and informed aspects of Copenhagen from on the study tour.

Observed or Informed	Comments
Lots of cyclists on main road cycle facilities. These are universally one-way, on the normal (right) side of the road.	Lanes and tracks are always on the right hand side. Such consistency and clarity aids all users.
Cycling modal share clearly very high even in awful weather.	Cycling levels drop far less in adverse weather than in UK. Key is to understand why.
There are crude gutter ramps in many places to let cyclists get onto and off cycle tracks between junctions.	These can be hazardous if cycled over lengthwise.
Cyclists feel safer on facilities, and the feeling of safety has improved recently.	Cyclist numbers seemed much lower where there were no facilities - but perhaps they are less useful routes.
Cyclist mode share has not increased significantly in the last 10+ years, though numbers of cyclists and average distances cycled probably have.	It is possible that helmet promotion is responsible for this.
Plenty of small children in freight bikes. But this creates congestion as they're slow, and many cycle tracks are too narrow for them to be passed easily.	Cyclists generally pass unsafely if there's no room to pass safely.
On principal cycle routes, cycle 'green waves' are being implemented, set for a speed of 20kph.	An excellent idea, but our SCOOT system works by responding to drivers' actual speeds, so would have to be replaced. Green waves at cycling speed reduce the incentive for drivers to pass cyclists, promoting both lower speeds and safer overtaking. We should have them - they don't affect motor vehicle capacity unless set for very low speeds.
Wide range of people cycling, but not many older children and teenagers.	Maybe I was in the wrong part of the city - but I did see this age group walking or waiting for buses, so they seem to be cycling less than other age groups. For this age group helmets may effectively be compulsory, and this may be putting them off.
Overall cycle casualty numbers have dropped at least 60% since 1996. No rate-based figures, but cycling has increased by at least 10% over that time. Relative cyclist and pedestrian casualties fluctuate rather a lot from year to year.	Good figures - but likely to be general road safety improvements rather than cycle-specific. UK figures also show similar improvement, but in our case cycle safety is improving more slowly than pedestrian safety.
The council reckons regular cycling increases life expectancy by several years.	As it's safer to cycle than not to, anything that puts people off is to be avoided.
All official cycling organisations (cycling embassy, city council, etc) promote cycle helmets. Wearing is near-universal among	There remains inconsistency on this matter.

shildren and shout 10 200/ for adults	
children, and about 10-20% for adults.	How do we got them from home O Double with
Drivers turning left give way to straight-on cyclists, often having to wait until the lights change. Sometimes the green light for cyclists goes off early to allow more drivers to turn.  After that drivers are quite assertive in pushing across the cycle track.	How do we get there from here? Danish drivers are used to this, and cyclist numbers are high enough to remind them if needed. The rule that turning road traffic gives way to crossing pedestrians, even at traffic lights, helps to instill the right habits.
To turn left at a crossroads, cyclists cross over and wait with traffic on the other road, crossing the road they were originally on when the lights change. Often there isn't room for them all on the cycle track, and they end up in front of the motor traffic lanes.	This is slower than a direct left turn by crossing motor traffic lanes, but generally there are two or more such lanes, and cyclists opt for (or are required to use) the slower but easier method. There are no formal markings for this way of turning - cyclists just swing round and stop wherever there's room.
There are no ASLs as we know them, and I saw no shared bus/cycle lanes. There is often coloured surfacing (blue!) where cycle tracks cross junctions.	Clearly, even here, driver awareness of cyclists when turning across their path is a significant safety problem. I can't recall seeing any bus lanes.
Cycle tracks are between the footway and any car parking spaces, segregated from parked cars by a white line or a kerb. There is no buffer space for opening doors, and the tracks are usually only just wide enough for two cycles, which means overtaking cyclists on the cycle tracks are right in the danger zone. Dooring casualties are quite common.	This is a problem they have to solve, but even on their spacious streets there isn't room for everything, and this seems to be what they skimp on. With car occupancy rates typically 1.2, nearside doorings may be rarer than driver's side.
Actual safety of cyclists reduces at junctions but improves between them, when cycle tracks are put in ('junctions' includes entrances and driveways). As a high proportion of collisions are at junctions, overall safety gets slightly worse when cycle tracks are installed.	Despite the well-trained drivers, adding conflict points increases collisions. It's the age-old question: is it acceptable to make cyclists less safe, if they feel safer and therefore cycle more (which makes them safer again due to safety in numbers)? Where is the cross-over?
There are an increasing number of cycle routes away from roads, including cycle-only bridges and cycle/pedestrian routes across green spaces. These seem to be popular with everyone. Routes shared with pedestrians are generally segregated.	Segregated routes tend to be too narrow, like ours. On the other hand, there are enough cyclists to keep most pedestrians off the cycle side.
There are plenty of roads without cycle facilities. Drivers seem to behave similarly to British drivers on these, overtaking cyclists too close rather than waiting for a better chance to pass.	Most cyclists ride in the door-opening zone rather than trying to prevent drivers overtaking where there isn't room to do so safely. I got the impression that drivers don't expect cyclists to delay them if they are not crossing cycle tracks.
In icy weather, cycle tracks are top priority for gritting - level with motorways (or equivalent),	We should do the same. In our case, the lengths of cycle track and path to be treated would be relatively short, so it wouldn't delay gritting roads

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and ahead of other roads.	much. The willingness of Danish cyclists to ride in all weathers was impressive. In London, the summer peaks in cycling have been rising much faster than the winter troughs, and this is something we have to change if cycling is to reach its potential. Our climate is better than theirs, too.
Cycle mode share falls off very quickly as you	Over longer distances, trains take over. There are
get further from the centre and as journey length goes over 10km.	huge amounts of cycle parking at stations, not very well managed.
Bus mode share (for journeys to work or	A major difference from London. I think our bus
school) is less than a fifth of the bicycle share. This makes it easier not to provide bus lanes!	mode share justifies our policy of providing bus/cycle lanes on busy roads.
Cycles are (almost?) universally allowed on	We should do this too. As a first step, we must
Metro and mainline trains, with no peak hour restrictions. The attitude is to provide more space, rather than impose restrictions, if demand increases.	ensure cycle carriage on Crossrail to and from Paddington. Second step is to allow it under central London, but with no getting on/off between Paddington and Liverpool St.
Mopeds and scooters share cycle tracks. This does not work too well as the limited space means they overtake too close.	They seem to get away with it, but this policy is not justified. Motorcycling confers no health or environmental benefits.
Cyclists clearly get training, and signal much more than British ones - including holding up a hand to warn that they're stopping.	An interesting idea, though not possible for emergency stops. It also relies on one hand being free while braking, because of the backpedal brake.
Overall KSI rate is about 1 per 4 billion passenger km - about a quarter of ours - with about 1 to 4 fatalities a year.	About the same as the Netherlands. I am convinced that the principal explanation for this is more careful driver behaviour around cyclists.
Speed and convenience are the main reasons people give for cycling. Very few cite environmental reasons.	Copenhagen cycle tracks have enough priority to make them fast. Ours, on the whole, don't, which is why people cycle on-road here even when offroad facilities are provided.
The Jan Gehl people were passionately prosegregated infrastructure - "build it and they will come".	Not in Stevenage. Or Milton Keynes. Whereas in Cambridge It's all about a cycling culture.
Over the last few years, length of cycle track/paths has increased much faster than cycling mode share.	It's clear further increase in cycling mode share is going to be hard. More restrictions on cars, and further improvements to perceived safety, will be required.
They are planning to introduce faster, somewhat more direct cycle super-highways along main radial routes and a couple of orbital	They are probably more comparable to LCN+ than our Superhighways. Copenhagen is much smaller than London. However, such an

alignments. These are being done by improving and joining up existing routes rather than starting from scratch. They are spending much less on them per mile than London is on its Superhighways.	approach is under active consideration with a WestTrans brief out on this.
Cycle parking is often no more than a designated space to park your bike on its kickstand. If stands are provided, they're likely to be wheel-benders.	Has the advantage that you can have dual- purpose car/bike parking. However, very poor cycle security.
Bikes are usually fitted with 'nurses' locks' - devices that immobilise the back wheel. Few people attempt to lock bikes to something solid. Theft is a problem, but the level seems to be low enough to be tolerable.	I can't see London getting back to a point where there's no need to lock your bike to something fixed. We're way ahead of them here – though only because we have fewer bikes and more cycle theft.
Bikes generally have back-pedal brakes on the back wheel, and a hand-operated brake on the front wheel.	Makes signalling (one way) while braking easier, but otherwise makes cycling slightly harder. Not an idea to copy.
The police have a veto on all highway schemes. They are pro-cycling (they say) but are reluctant to approve cycle contraflows without full segregation, or speed limit reductions.	We really are ahead of them on contraflows, and I think in risk assessment. Danes seem reluctant to look beyond feelings to get real data. Police are probably reluctant to be seen to be placing restrictions on motorists.
Until fairly recently (80s?) there was actually a law that cyclists should give way to motor traffic.	Presumably this only applied when sharing the carriageway. It may be one reason why Danish cyclists feel unsafe when not on cycle facilities.

#### **Comparing Impressions**

#### "My first impression of cycling in Copenhagen" – Nick O'Donnell, London resident

I was impressed by the ease of which one could hire a bicycle from our hotel at no cost and the simple locking mechanism of the bike. Despite it being a cold, windy and wet evening in November, the sheer volume of cyclists was striking. Compared to cycling in London, five main differences really stood out for me:

- 1. There is a more leisurely pace of cycling. During rush hour in London, everyone seems to be intent on cycling as fast as they can and the speed of cyclists is a lot higher than observed in Copenhagen. There is a slower overall pace of cycling and very few cyclists going full speed.
- 2. The high quality and well maintained roads and surfaces, along with the wide lanes meant cycling was a very comfortable and relaxing experience. Despite having cycled around the city for over two hours, there was no fatigue or discomfort and at times I found myself "switching off" as it was a secure and relaxing experience.
- 3. The behaviour of fellow cyclists and car drivers was very polite. Car drivers regularly gave way to cyclists and there was no sign of aggressive behaviour. On the odd occasion where I

- was in the way of a fellow cyclist, a gentle bell ring saw me move over and no words were exchanged.
- 4. Most people rode very standard bicycles and wore "normal" clothing. There were very people with expensive bikes and specialist bike clothing.
- 5. The range of people who cycled. All ages, and a very strong parental take up of cycling with their children.

#### "My first impression of cycling in London" - Henriette Lund, Copenhagen resident

Whilst planning my stay in London, I intended to use a bike as often as possible, as I love to cycle. However, seeing the traffic in London and the people on their bikes I began to think slightly different. For example I found the way in which cyclists have to negotiate junctions as quite different to Copenhagen and also a little scary.

My first impression of cyclists in London was that everyone is a committed racing cyclist, because they look like Danish racing cyclists, and they must be dedicated to buy all the equipment. For instance, I hardly saw a single cyclist in their normal clothing happily taking their bike for a short run to the supermarket.

An intimidating thing about cycling here in London is that cars don't necessary hold back for cyclists. I was told by colleagues that the drivers would see me as an irritating cyclist that is here to provoke and slow down traffic. I now understand that the law does not take into account that the cars should look out for cyclists as is the law in Denmark.

I chose to get some cycle training to help become a more confident cyclist.

My first cycle training experience was a little frightening. My cycle trainer told me just before the first junction, where I was to go right, that I should place myself in the middle of the road just as the cars and 'take the lane'. This is of cause for my own 'safety', but as I came up to the junction ready to take the lane, I felt quite intimidated. I told him "I hear what you are saying, but I don't want to cycle in the middle of the road as it is dangerous". With the help of the trainer I slowly rode through that junction and many others on my two hour trip around the city. Afterwards I was kind of on a high, feeling the adrenalin in my body. I was feeling alive and happy because I was learning how to be able to get around London on my own.

I come from a culture where I can cycle wherever I like, on safe roads and with flexibility where I don't even need to think about safe cycle parking and the cars holding back for cyclists.

One of my greatest fears of cycling in London is going through junctions, because it is not unequivocal how you go through them. This means that as a new citizen in London, not knowing the difficult junctions from the easy ones, I find myself having to prepare my trips around the city. I have discovered that even experienced cyclists sometimes have to do the same, or stop before some junctions to found out how they want to approach them.

Being a cyclist in London is not at all bad. As an employee at TFL I have learned that many different people cycle and that all the work going on around cycling is amazing and working very well. I am

really impressed about the commitment from TFL and the Mayor to make cycling a travel solution for everyone.



Figure 28 - The tour group on their bikes (Illustration; Simon Franklin, LB Hammersmith and Fulham)