

BICYCLE URBANISM BACK TO THE FUTURE CITY

FLORIAN LORENZ, SMARTER THAN CAR

TV WIEN RINGVORLESUNG: RADFAHREN IN DER STADT — 28. APRIL 2014 —



Liman Zhao
Shannon Bufton
Joshua Grigsby
Florian Lorenz

SMARTER
THAN CAR



比车牛

Think Tank
Fellows
Braintrust



SMARTER
THAN CAR

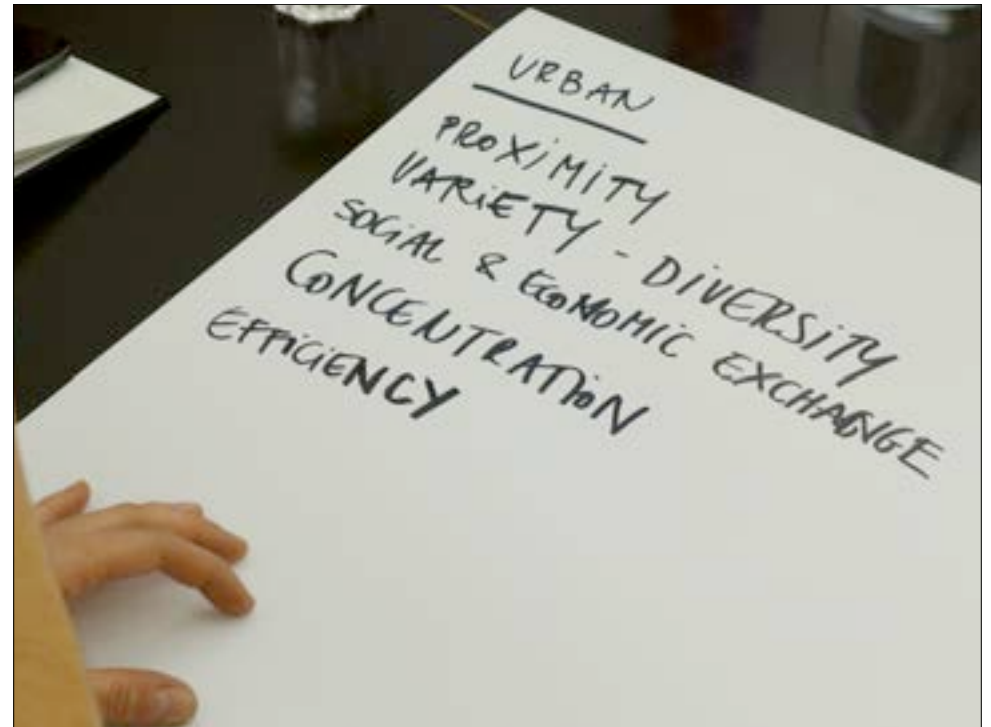


比车牛



RADFAHREN IN DER STADT

Cycling hispter image, wien 1890...

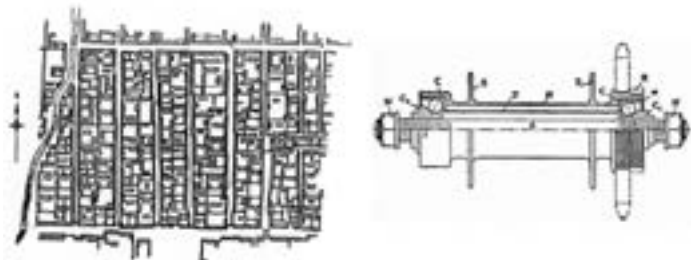


Bicycle Urbanism

Individual mobility to access urban functions while fostering urban quality and social equity.

Analyzing, planning and maintaining urban environments with a focus on pedal-powered vehicles.

Urbanization and appropriation of cities with pedal-powered vehicles.



BACK 
TO THE FUTURE CITY

1950  **BEIJING**  **2014**

In 1949, the city had only 215 km of surfaced roads. The widest road ran from Dongdan to Xidan (Changan Avenue) for a length of 3,8 km, and its widest part did not exceed 11m.

[Sit. Beijing: urban transport issues in a socialist Third World setting (1949-1992). 1996]



Tienamen square before expansion | Anon | ca.1950
<http://blog.uchinatravel.com/?p=79>

[T]he government, as a measure of expedience, deliberately encouraged the use of the bicycle to cover up inadequacies of both public transport and land use planning so as to maintain a city and its population ,on the move‘.

[Sit. Beijing: urban transport issues in a socialist Thir World setting (1949 - 1992). 1996]



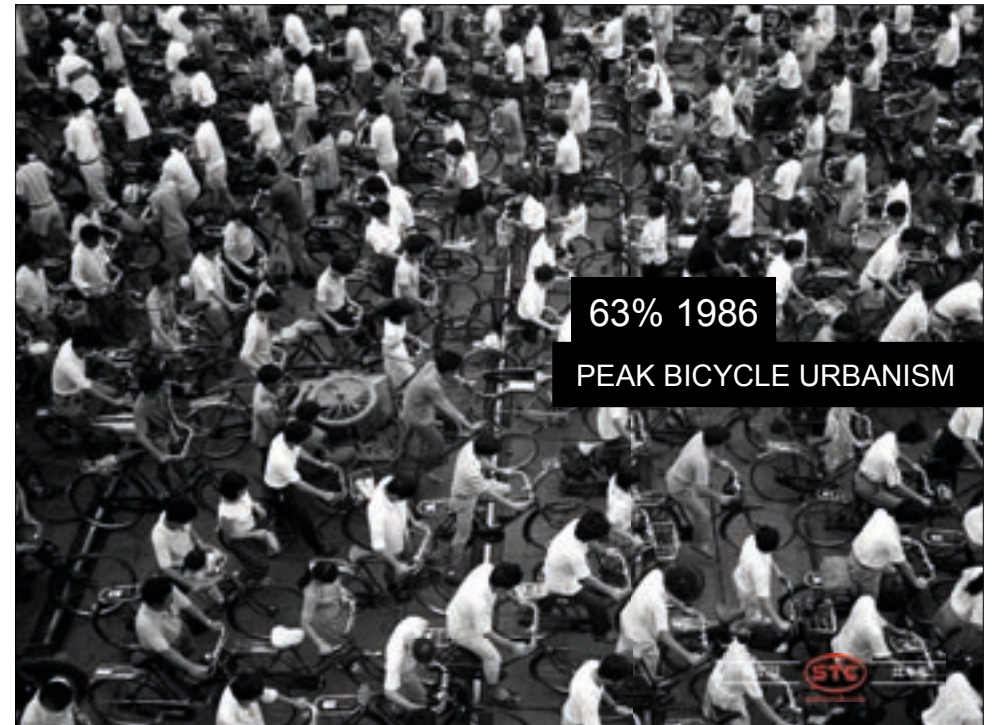
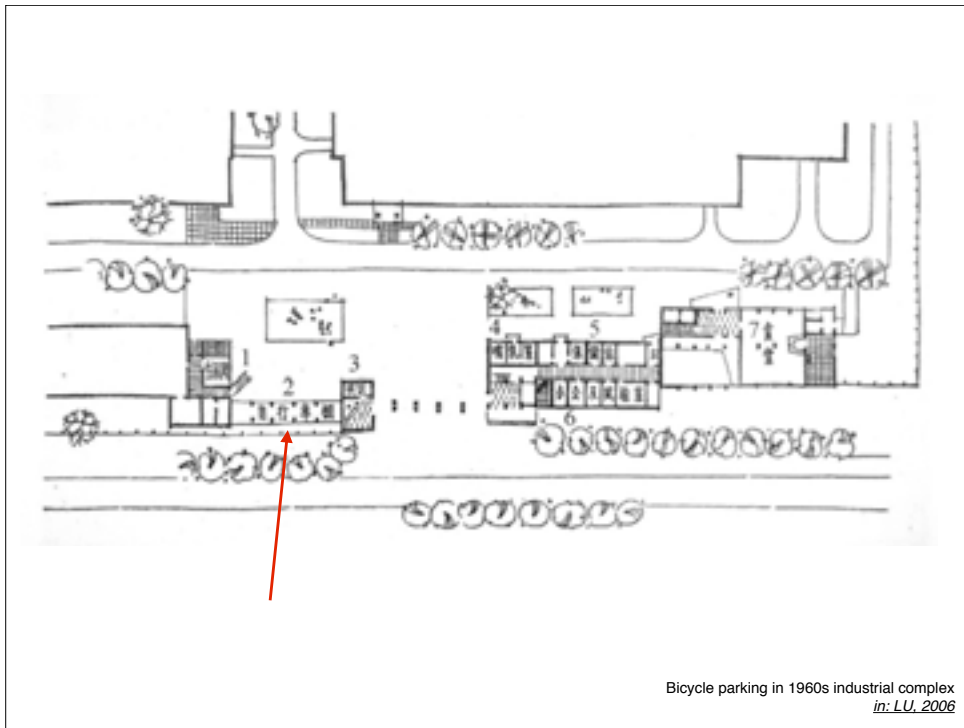
Bicycle propaganda
<http://woofjakarta.blogspot.com/2011/10/postcard-china-propaganda-girls-bicycle.html>

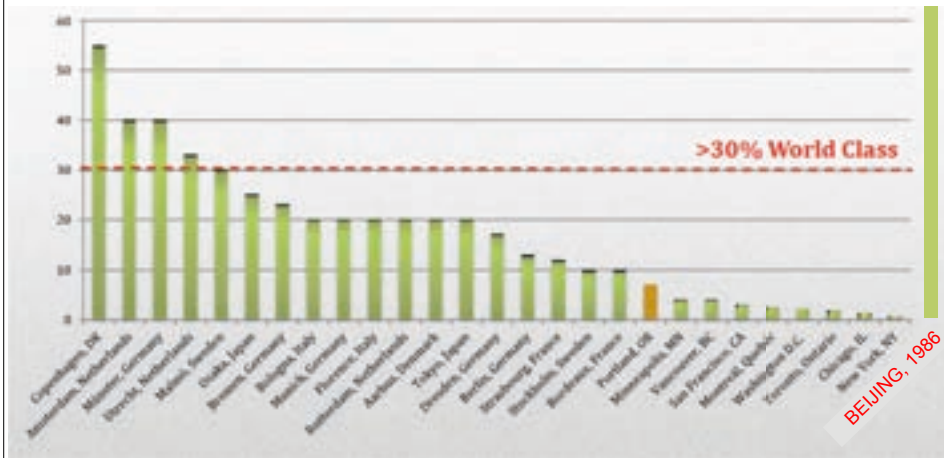


The Three Bic Items 1960s | Anon | 1960s



Safeguard the Orderliness of the Revolution: Transportation Is Getting a New Look | Anon | 1970s
<http://www.flickr.com/photos/7286111@N07/4807960994/sizes/l/in/set-72157624181966128/>

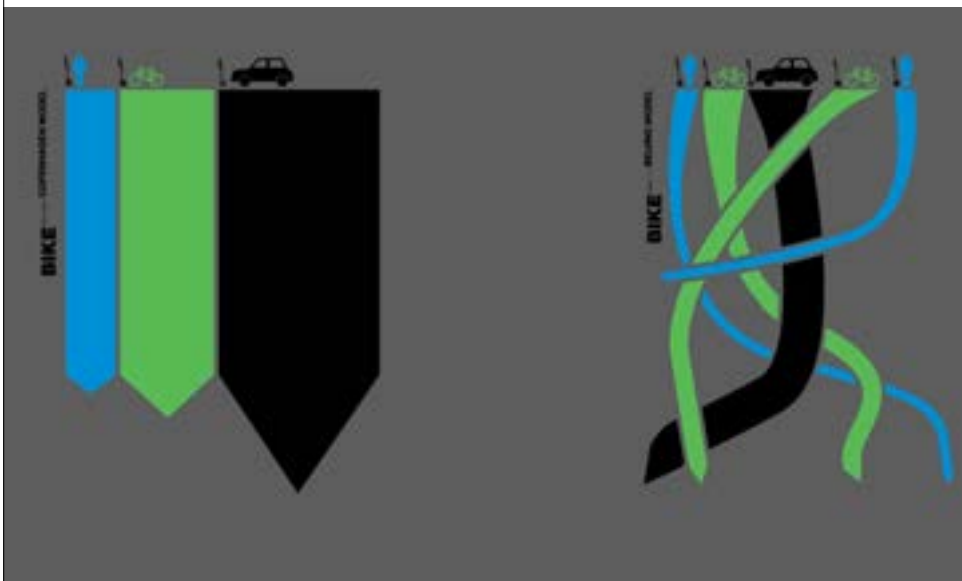




from:
http://www.thinkurban.org/wp-content/uploads/2012/03/GOODchallenge_THINKurban.pdf

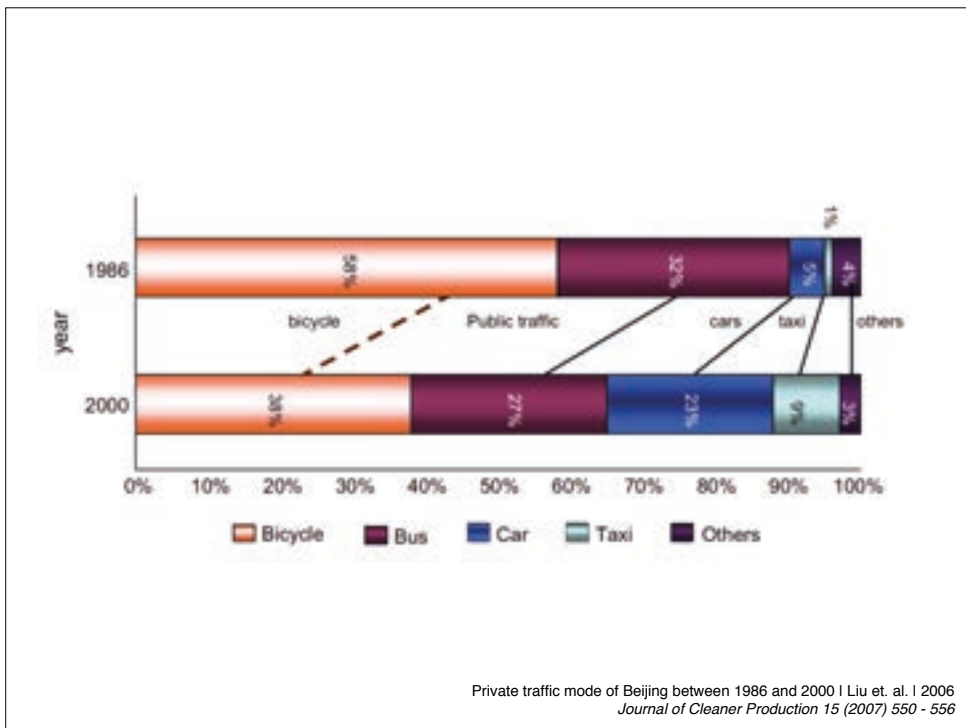


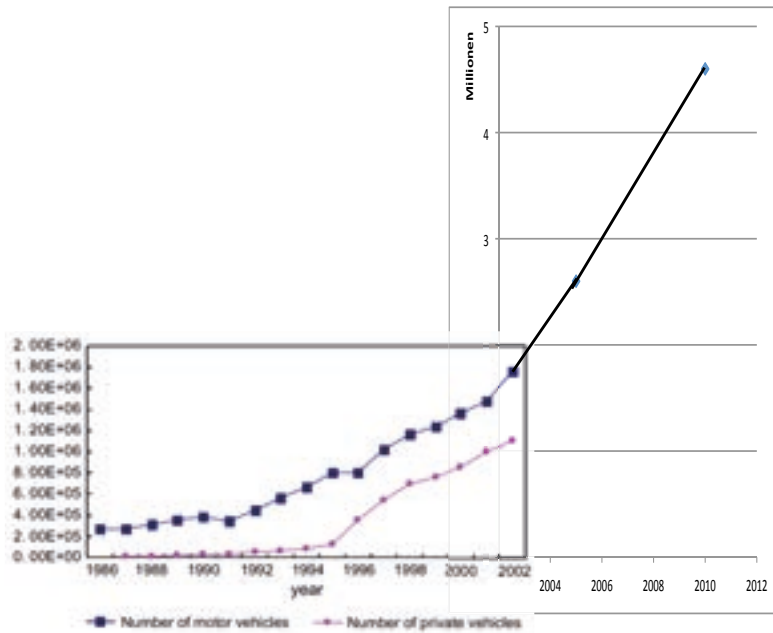
Cycling population of Beijing versus contemporary cities | Smarter Than Car 2013
Compiled from various sources



Negotiated Flow | Smarter Than Car 2013
 Diagram: Thomas Kozelsky





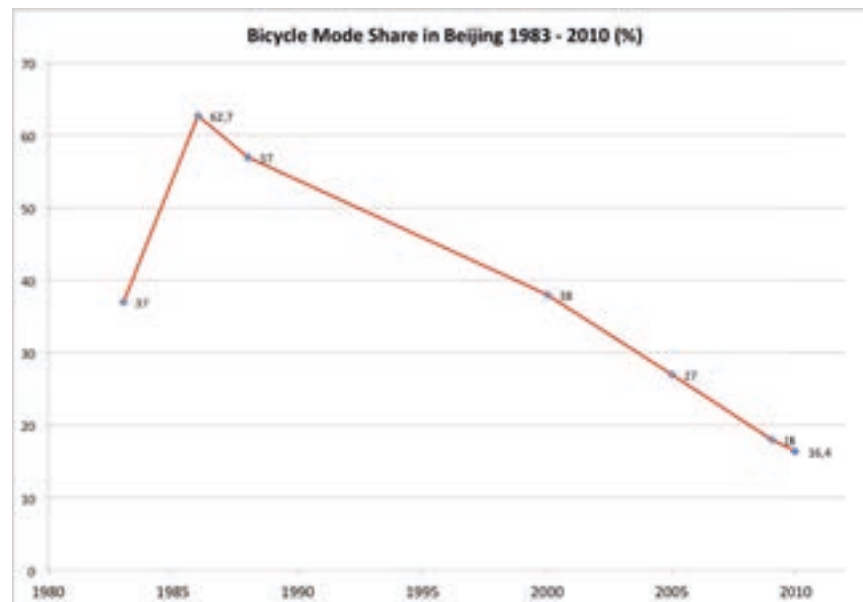


Motor vehicles and private vehicles in Beijing | Liu et. al. | 2006
Journal of Cleaner Production 15 (2007) 550 - 556

Cars in Beijing 2004 - 2010 | Creutzig et al | 2012



Cars | Matthew Miederhauser | 2011
<http://www.mdnphoto.com/blog/gilded-visions-of-modern-china/>

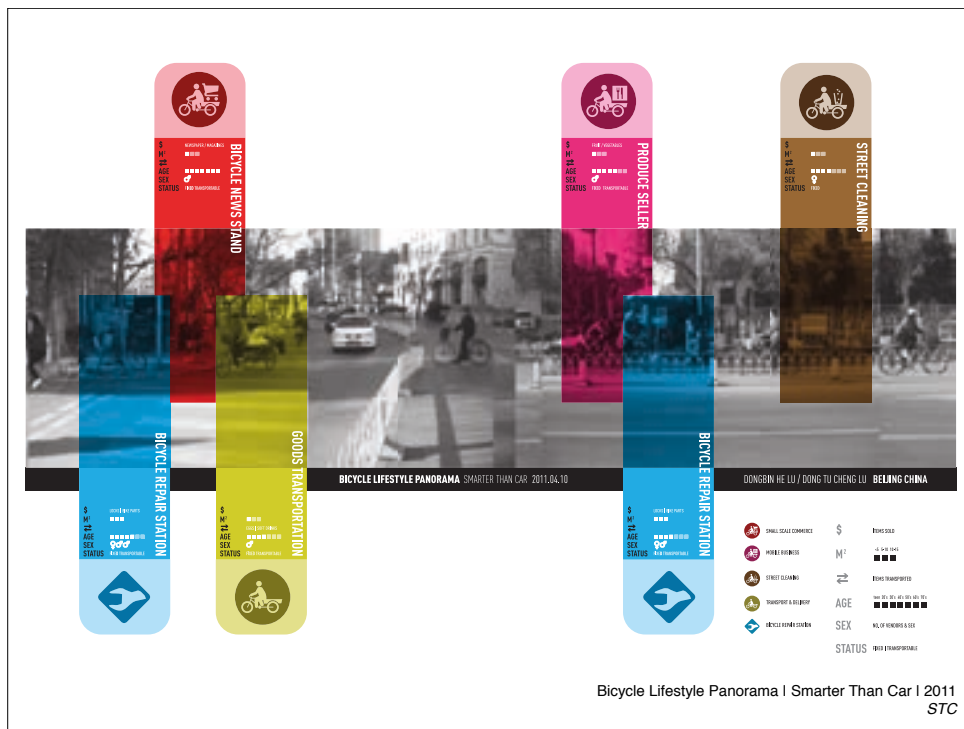


Bicycle Ridership Beijing 1983 - 2010 | compiled after various sources | 2014
 author

BACK 
TO THE CURRENT CITY

 **BEIJING, 2010-2014**

SMARTER THAN CAR  比车牛



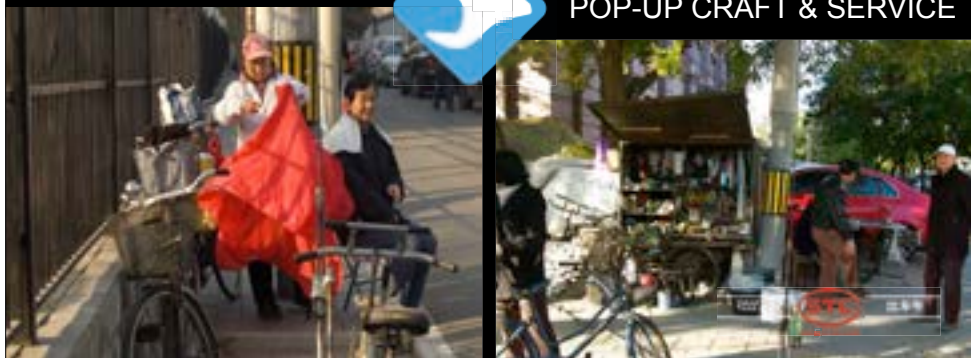
We define **‘pedal-based livelihood’** as the realm where bicycles (or tricycles) are used to organize and sustain a person’s everyday life by providing identity, economic opportunity and functional utility.

[Lorenz & Butten, Beijing’s pedal-based livelihoods as a muse for bicycle urbanism. 2012]

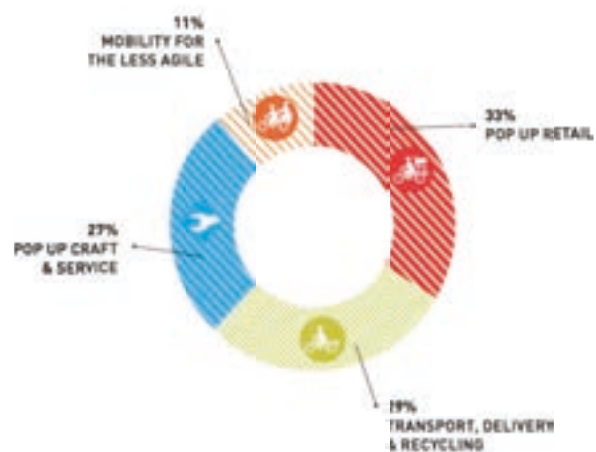




POP-UP CRAFT & SERVICE



MOBILITY FOR THE LESS AGILE

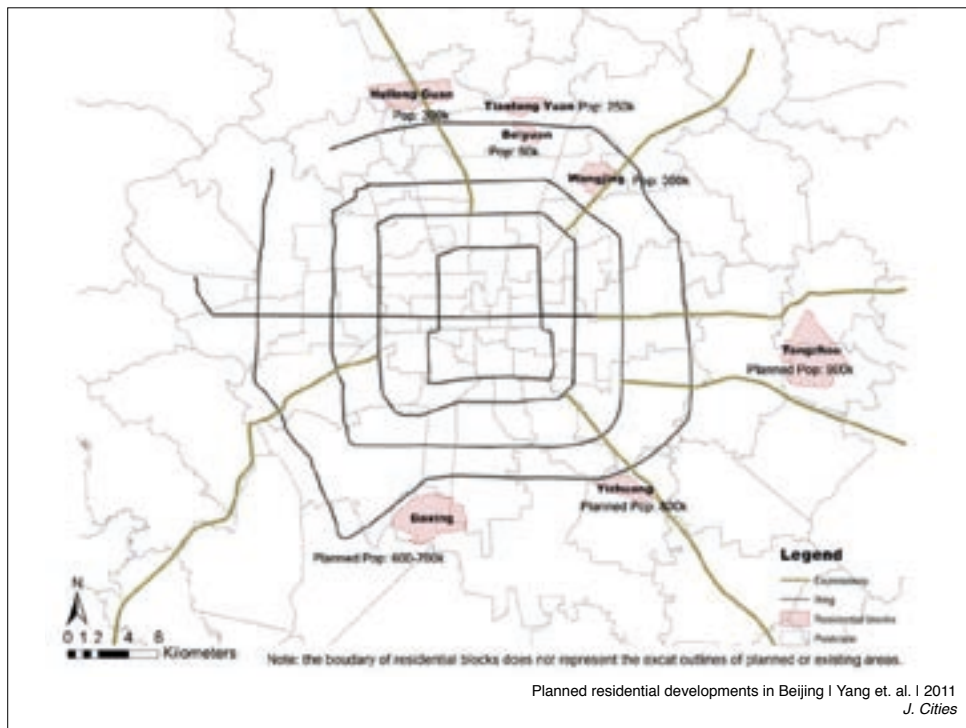
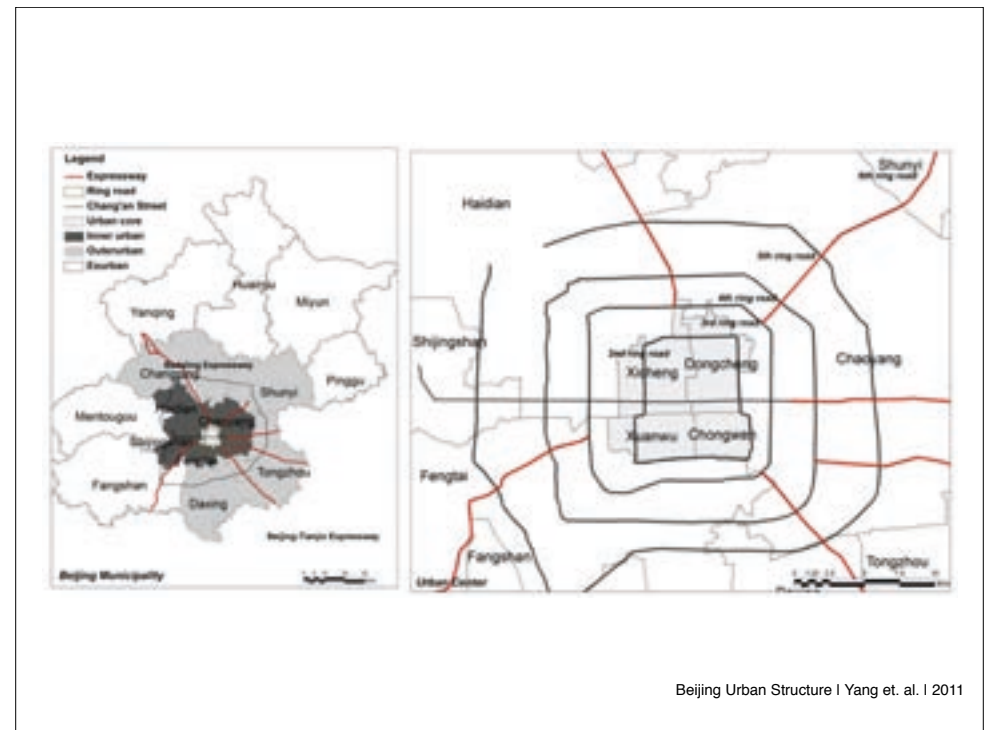
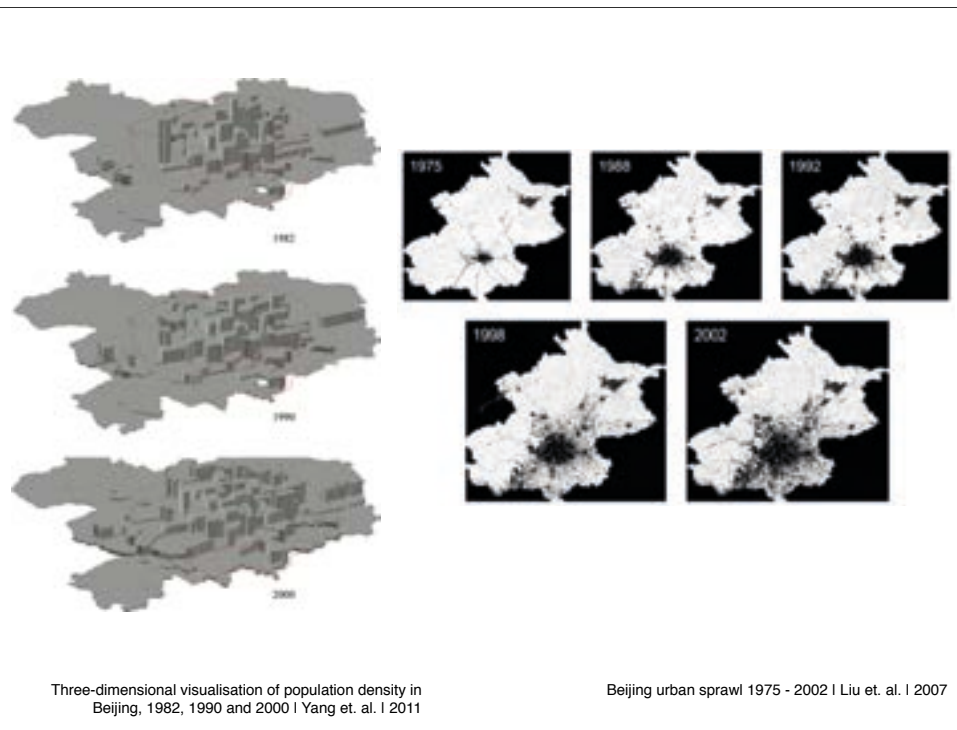


Bicycle Livelihoods Categories | Smarter Than Car | 2011
STC



Beijing: Bicycle livelihoods as urban survival strategies | Florian Lorenz/STC | 2012
author himself

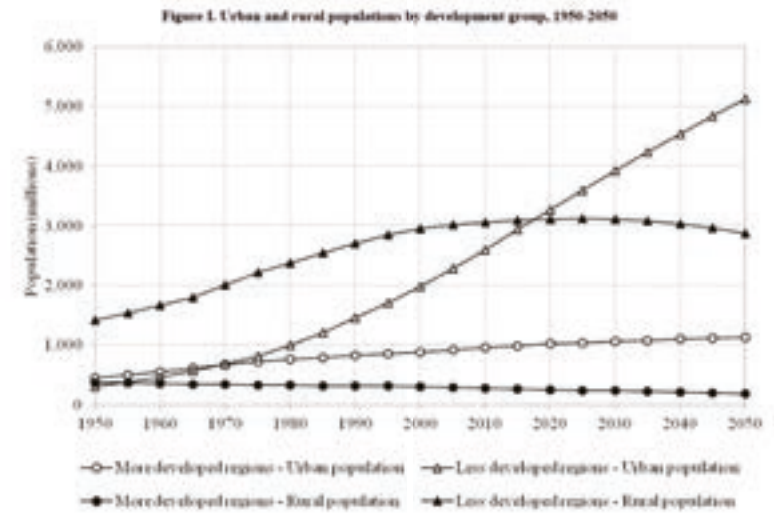






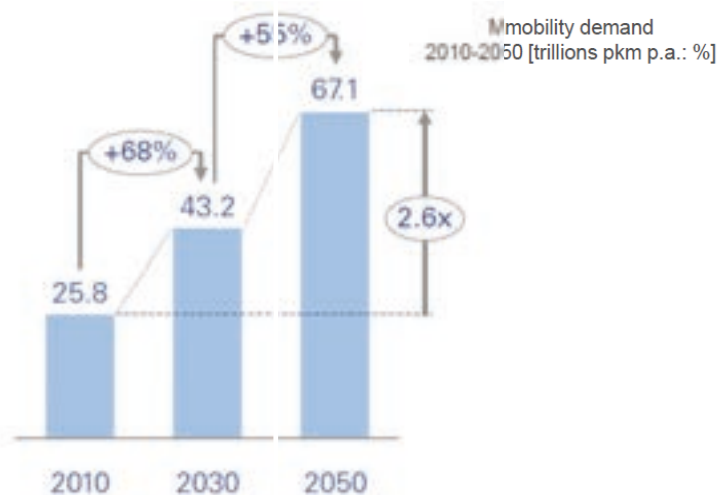
BACK TO THE URBAN MOBILITY CHALLENGE

URBAN GROWTH



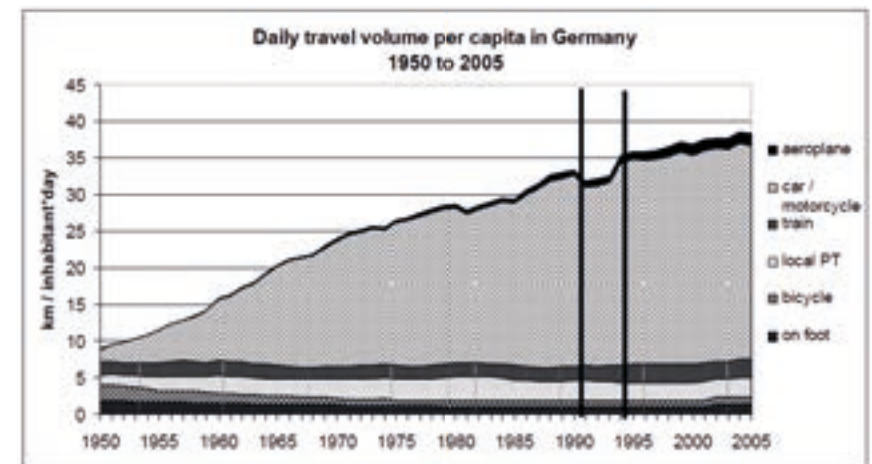
World Urbanization Prospects - The 2011 Revision | United Nations Department for Economic and Social Affairs | 2012
http://esa.un.org/unup/pdf/FINAL-FINAL_REPORT%20WUP2011_Annexables_01Aug2012_Final.pdf

TRAVEL DEMAND



The Future Mobility of the World Population | Schafer Andreas and David G Victor | 2000
 Transportation Research Part A Policy and Practice 34(3) 171-205

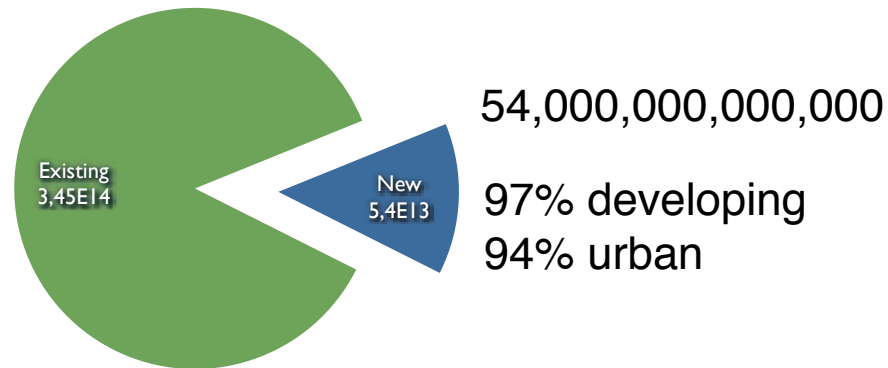
TRAVEL DEMAND



Scheiner, Joachim (2010): *Interrelations between travel mode choice and trip distance: trends in Germany 1976 to 2002*. Journal of Transport Geography 18(1), pp. 75-84.

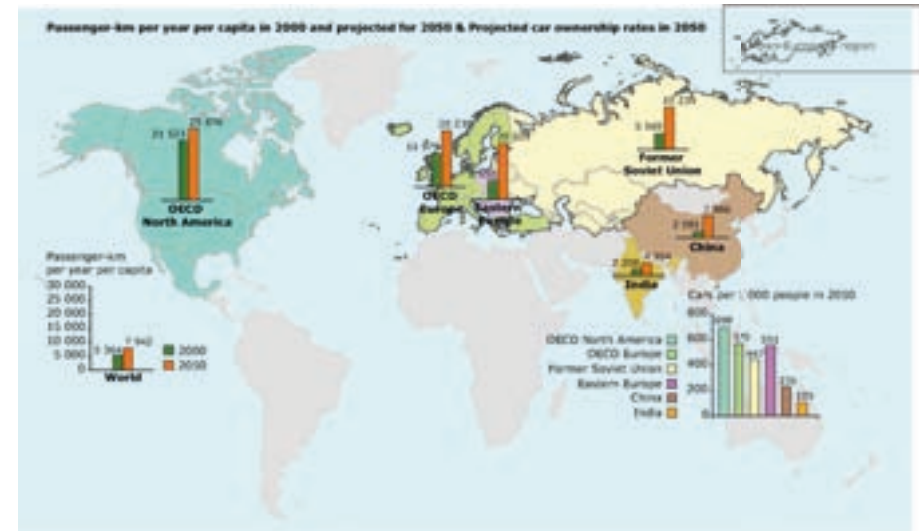
CUMULATIVE TRIPS ➡ 2015-2050 ➡

400,000,000,000,000



Estimated global trip demand 2014-2050 | Philippe Crist | 2013
International Transport Forum, OECD estimates based on UN DESA statistics

MODAL SHIFT ➡



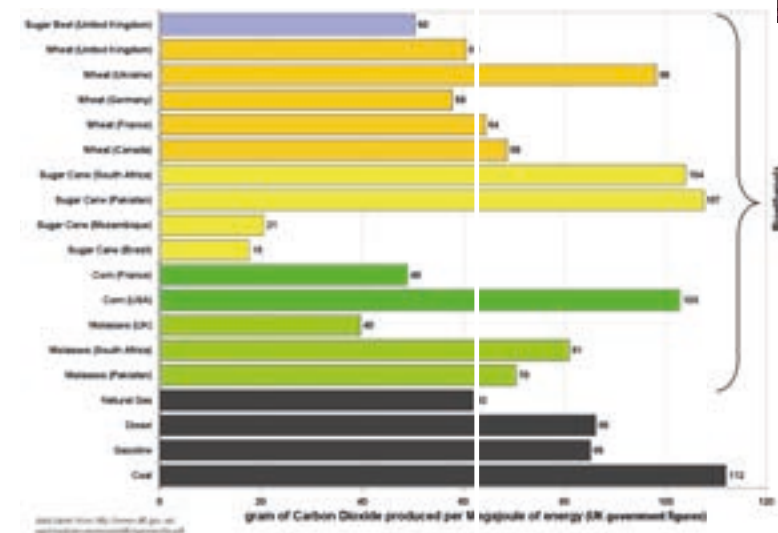
Pkm / year / capita in 2000 and projected for 2050 & Projected car ownership rates in 2050 | European Environment Agency (EEA) | 2007
<http://www.eea.europa.eu/data-and-maps/figures/passenger-km-per-year-per-capita-in-2000-and-projected-for-2050-and-projected-car-ownership-rates-in-2050>

URBAN EQUITY ➡

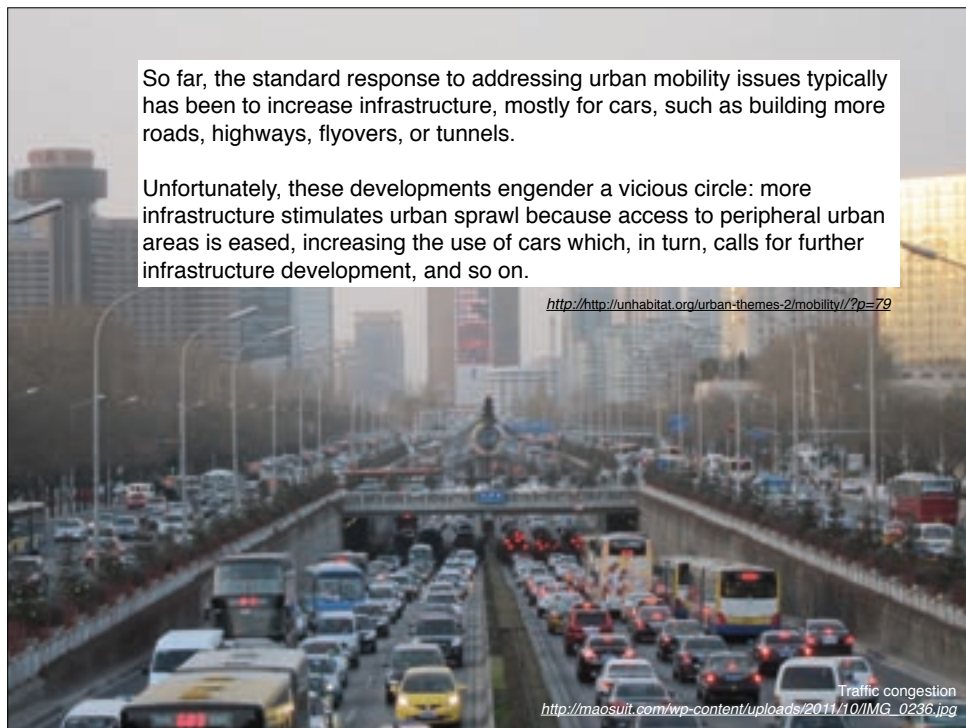
Lack of access to safe walking, cycling, and public transport infrastructure remains an important element affecting the success of modal shift strategies, in particular in developing countries (Sonkin et al., 2006; Tiwari and Jain, 2012b).

IPCC 5th Assessment Report "Climate Change 2014: Mitigation of Climate Change" Chapter 8: Transport | IPCC | 2014

RESOURCES ➡



"Carbon and Sustainability Reporting Within the Renewable Transport Fuel Obligation" (PDF). Department of Transport, United Kingdom. January 2008. Retrieved 2011-10-12.





Addressing the mobility challenge calls for a paradigm shift in urban planning, encouraging compact cities and mixed-land use as a way to increase accessibility and to reduce the need for transportation altogether.

<http://unhabitat.org/urban-themes-2/mobility/?p=79>



The urban space needs to be rethought in order to optimize flow of traffic, but also to increase and encourage the use of non-motorized transport, such as pedestrian movement or cycling.

Streets need to be adapted, with walkways, crossings, and cycling lanes.

<http://unhabitat.org/urban-themes-2/mobility/?p=79>

BACK 
TO THE FUTURE CITY
BIKE BICYCLE URBANISM



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Culture Casbah | MKB Fastighets A/B - Lundgaard & Tranberg
 Arkitekter | Malmö | 2014



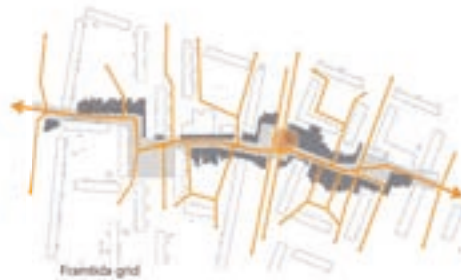
Culture Casbah I MKB Fastighets A/B - Lundgaard & Tranberg
Arkitekter I Malmö | 2014



google earth



Dagens grid



Framtida grid

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Arkitekter I Malmö | 2014

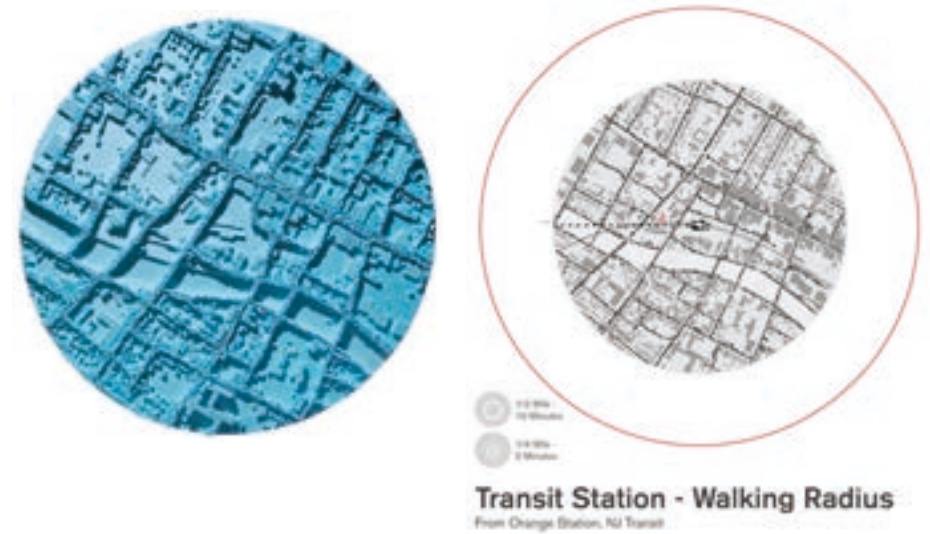


Det förtätade sträket och de tre platsbildningarna
i det reviderade tävlingsförslaget

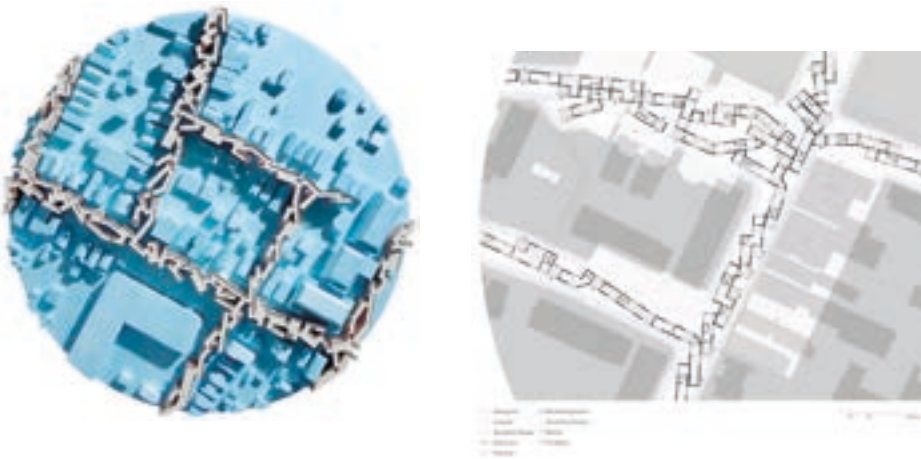
Culture Casbah I MKB Fastighets A/B - Lundgaard & Tranberg
Arkitekter I Malmö | 2014



The Oranges - Thought on a Walking City | Michael Meredith and Hilary Sample, MOS | MOMA Foreclosed Exhibition | 2011
<http://www.moma.org/interactives/exhibitions/2012/foreclosed/oranges>



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<http://www.moma.org/interactives/exhibitions/2012/foreclosed/oranges>



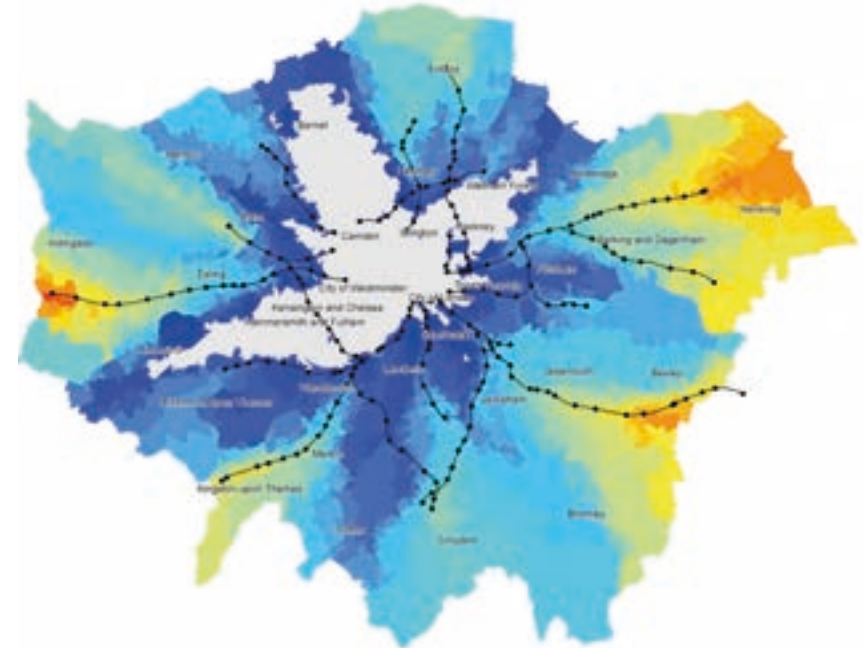
The Oranges - Thought on a Walking City | Michael Meredith and Hilary Sample, MOS | MOMA Foreclosed Exhibition | 2011
<http://www.moma.org/interactives/exhibitions/2012/foreclosed/oranges>



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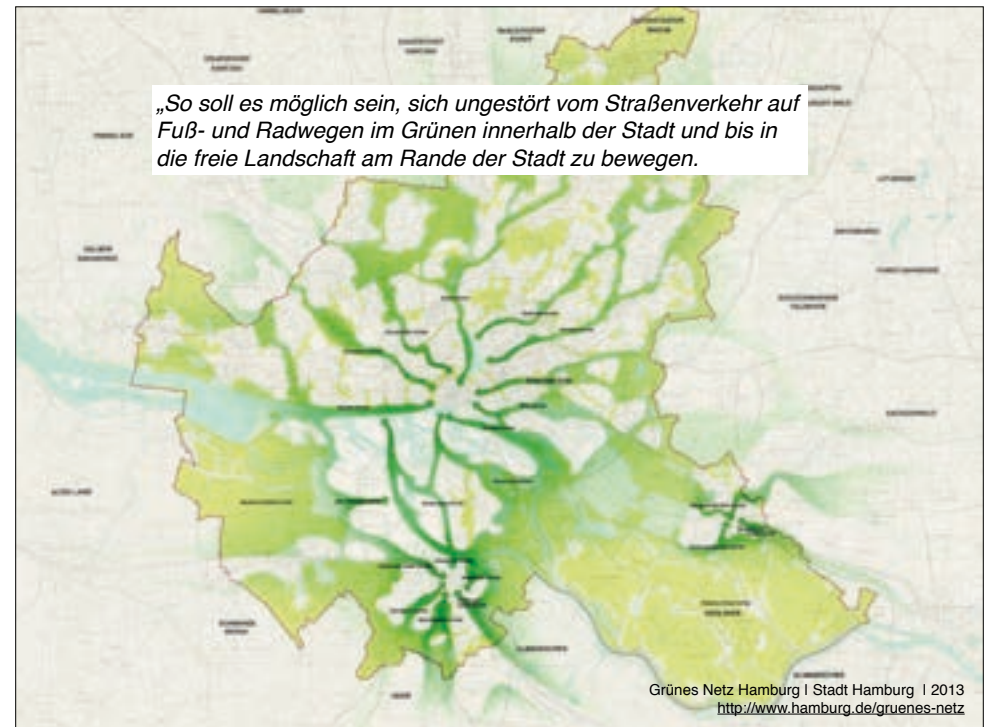
The Oranges - Thought on a Walking City | Michael Meredith and Hilary Sample, MOS | MOMA Foreclosed Exhibition | 2011
<http://www.moma.org/interactives/exhibitions/2012/foreclosed/oranges>



SkyCycle | Exterior Architecture, Foster and Partners and Space Syntax | 2013
<http://www.fosterandpartners.com/cn/news/archive/2013/12/skycycle-proposals-to-create-safe-new-cycle-routes-throughout-london/>



SkyCycle | Exterior Architecture, Foster and Partners and Space Syntax | 2013
<http://www.fosterandpartners.com/cn/news/archive/2013/12/skycycle-proposals-to-create-safe-new-cycle-routes-throughout-london/>



Grünes Netz Hamburg | Stadt Hamburg | 2013
<http://www.hamburg.de/gruenes-netz>



Bicycle in a multi-modal future of urban mobility | Smarter Than Car | 2014
Icons by: Enzy, Fabio Meroni, Benni, Sam Vermette, Reuben and public domain via <http://www.thenounproject.com>

BACK 
TO THE FUTURE *OF*
SMARTER THAN CAR 

 **THINK TANKS**
 **BIKESHARE RESEARCH**
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smarterthancar.com
@smarterthancar
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florian@smarterthancar.com



Bicycle urbanism for future mobility | Florian Lorenz/STC | 2012
author himself