



cycle
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DESIGN FOR LIFELONG
HEALTH & WELLBEING

Active ageing *in place*:
The role of urban design
in facilitating life-long
mobility

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Outline

- Mobility, quality of life and place attachment
- Active ageing and cycling
- Research gaps, questions and methods
- A role for urban design in facilitating active ageing *in* but also *through, place(s)*

Mobility, quality of life and place

- Mobility as an essential element of *quality of life*, especially for older adults who can feel personal and environmental barriers more acutely (Kaiser, 2009)
- Sensitivities to *perceived qualities* of local environment can shape and structure personal (im)mobilities
- Individual perceptions about levels of neighbourhood safety more likely to influence levels of physical activity among adults aged 65+ (Troped et al., 2001)
- Older adults are also more exposed to environment (time spent at home) and related constraints (increased risk of environmental docility) (Wang and Lee, 2010)
- Implications for understandings of *place attachment*, understood, variously, as a (positive) source of rootedness or as an anachronistic form of bounded fixidity in a hyper-mobile world (Tomoney, 2014)

Understanding older peoples' mobility

- EPSRC-funded 3-year research project study to understand cycling among the older population and how this affects independence, health and wellbeing
- Aim is to advise policy makers and practitioners how our environment and technologies can be designed to help people to continue to cycle in older age or to reconnect with cycling (*life-course* approach)
- Mixed-methods research and engagement with 50-59 (approaching older age) and 60+ (older adults) populations in Reading, Oxford, Bristol and Cardiff

Active ageing agenda

- The WHO defines active ageing as:
“the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age. [It] allows people to realize their potential for physical, social, and mental well-being throughout the life course and to participate in society, while providing them with adequate protection, security and care when they need”.
- Cycling as a relatively low-cost, low-impact, undemanding, and social form of physical activity
- Older people are largely absent from discussions about cycling, in policy, but also in research/practitioner realms

Active ageing in the UK (Age Concern, 2014)

- Over 1/3 (22.7m) of the UK population is now over 50
- Almost 15m are aged over 60 and 3m are aged 80+
- By 2030, there will be an estimated 20m over 60s
- In English adults aged 65-74, 19% say they meet the minimum level of suggested physical activity necessary to achieve health benefits, only 7% of 75+ population
- Potential for cycling to play a greater role here?
- Much higher levels of cycling amongst older adults in countries such as Netherlands (23%) and Germany (9%) than in the UK (where <1% of all trips are by cycle)

Research gap

“More research is needed to expand the understanding of aspects of neighbourhood environments influencing the quality and quantity of outdoor activities and consequently people’s health status.”

(Sugiyama & Ward Thompson, 2007: 174)

Research questions

- What role could cycling play in increasing mobility choices and engagements with place among older people?
- Should cycling be seen of as part of an active approach to ageing?
- How can we better understand the role that the quality of the built environment plays in mobility choices?

Focus on everyday lives of older people...

cycle
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Research methods

1. **Learning from elsewhere: Investigate EU cities promoting more inclusive cycling** amongst the older population/compare with activity in the UK
2. **What do we already know? Analysis of UK data** to identify trends in older participation in cycling and effects of programmes and policies
3. **Biographic ('cycling life-history')** interviews to understand the role of past experiences of cycling and the influence of life events
4. **Mobile interviews and observation** with participants as they make a regular journey by cycle to capture everyday experience of cycling and measure how interaction with the built environment affects mental physical and mental wellbeing
5. **8-week experimental bike trial** with new and returning cycle users to measure how (re)engagement with both conventional and electric cycling in the built environment affects physical and mental wellbeing
6. **Urban design audit** to assess the qualities of the built environment that influence cycling activities, creation of toolkit to guide policy makers and designers in creating cycle-friendly urban environments

A role for urban design



"Urban design is about how to recapture certain of the qualities (qualities which we experience as well as those we see) that we associate with the traditional city: a sense of order, place, continuity, richness of experience, completeness and belonging....it is a rich network in which buildings come and go: a framework of transport, built fabric and other features, which create natural locations for things. Urban design structures activities."

A role for urban design

- *Perceptions* of a range of factors, including the visual characteristics of the built environment, personal safety and risk, infrastructure provision and sense of place influence personal mobility choices and physical activity levels
- Areas that present more barriers to, and provide fewer resources for, the encouragement of physical activity may speed-up the ageing process for inhabitants (Bortz, 1982)
- Research suggests older people are more sensitive to (perceived) qualities of place, e.g. legibility, linkage, enclosure
- Access to high quality spaces, for example, green space, shown to be more important in *leisure* cycling
- Positive relationship to quality of life and wellbeing
- Targeting interventions at older adults to help in creating more inclusive journey environments for all?

A role for urban design

- Good UD has power to aid in provision of inclusive journey environments (Azmin-Fouladi et al, 2007)
- Lack of understanding between Urban Design and transportation aspects of Built Environment (Boarnet and Crane, 2007)
- Characteristics of the Built Environment key to successful policy interventions (Yen et al, 2009)
- Studies of accessibility, facilities, safety, infrastructure fail to highlight perceptual barriers or influences on cycling behaviours (Evans, 2009)
- Urban Design has neglected the cyclists' perspective (Forsyth et al, 2009)

Urban design audit

- To design, develop, and conduct a comprehensive urban design audit specific to cycling - resulting in a bespoke audit tool and published design guide for policy makers and practitioners
- Identify the attributes, features and principles that influence or contribute to quality urban environments for cyclists - and how these environments can be achieved both retrospectively and through future development initiatives

Conclusion: Active ageing *in* and *through* place(s)

- Quality of the journey, sense of enjoyment and relationship to place are under-explored factors in understanding mobility behaviours
- Improvements to physical environments need to consider a wide range of quality measures that are shaped through individual perceptions (and may not be easily measureable or quantifiable)
- Urban design, with its sensitivity to these factors, as well as role in shaping the appearance and function of places, could help to move the debate beyond the technical discourses that tend to dominate



Width required for car/HGV at 20mph/30mph to overtake a cyclist in secondary riding position

20mph	5.1m	4.3m	2.5m	1.5m	0.5m	0
30mph	5.6m	4.8m	3m	1.5m	0.5m	0

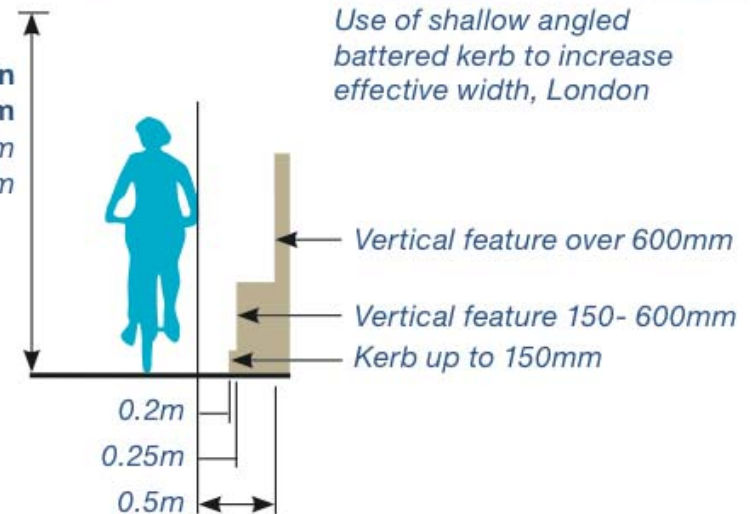
Not to scale

Additional clearance to maintain effective width and headroom for cyclists



Use of shallow angled battered kerb to increase effective width, London

Min Headroom
Subways 2.4m
Signs 2.3m



Sustrans Design Manual, 2014



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- News & Events
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Cochrane's Doable Project Bike Share!

(Check out those colourful bikes)



As part of 8-80 Cities' Doable Neighbourhood Project, Cochrane, Ontario, launched a bike-share program. There are many more community projects on the way.

Learn more about the project. [Click here!](#)



Engage and Inspire to Transform Cities for All.

8 - 80 Cities is a Canadian based non-profit organization with an international outlook. We promote walking and bicycling as activities and urban parks, trails and other public spaces as great places for all. [Read more >>](#)

Conclusion: Active ageing *in* and *through* place(s)

- Need to develop a deeper discussion about what the *cycle scale* is and what this means for how places are designed, planned and, crucially, *experienced*
- Engaging with theories of place to capture recursive relationships between attachments to place (not only understood as fixidity) and mobilities (as constitutive of experiences of, and relationships to, place)