Chapter 7: Creating a convivial public realm for an ageing population. Being a pedestrian and the built environment

Charles Musselwhite

Centre for Innovative Ageing, Swansea University

Abstract

Active travel, such as walking and cycling, has direct physical heath benefits for older people. However, there are many barriers to walking and cycling including issues with the maintenance of pavements, sharing the path with other users, lack of public seating and benches, proximity of speeding traffic and narrow pavements. To create better public spaces, it is important to consider safety and accessibility of the public realm but also elements such as character, legibility, adaptability and diversity. The aesthetics of the space cannot be overlooked too, in order to attract older people to use the public realm. Issues such as shared space pose different challenges for older people, though research would suggest if traffic volumes are low then sharing space with other users improves for older people.

Keywords: pedestrian, public realm, accessibility, built environment, aesthetics, walking

1. Introduction

Continuing active travel in later life also has additional direct physical health benefits, for example, regular walking or cycling can reduce cardiovascular disease by around 30% and reduce all-cause mortality by 20% (Hamer and Chider, 2008), through reducing the risk of coronary heart disease, stroke, cancer, obesity and type 2 diabetes (Sinnett et al., 2011). It also keeps the musculoskeletal system healthy and promotes mental wellbeing (Sinnett et al. 2011). In addition, travel is important for affective needs including the need for independence, freedom and status (Musselwhite and Haddad, 2010). Shifting short journeys from the car to the bicycle or walking could dramatically reduce the risk of coronary heart disease, stroke, cancer, obesity and type 2 diabetes (see Sinnett et al., 2011 for review), reduce cardiovascular disease by around 30% and all cause mortality by 20% (Hamer and Chider, 2008). It also keeps the musculoskeletal system healthy and promotes mental wellbeing (Sinnett et al., 2011).

2. Barriers to walking

Musselwhite (2011) highlighted key areas where older people themselves said they felt were barriers to them walking from both the IDGO project (Newton and Ormerod, 2007a,b; Ormerod, 2012) and SPARC projects (Musselwhite and Haddad, 2008, 2010):-

- Older people are also reluctant to use pedestrian areas where they feel threatened by others as these examples from research with older people suggest:
- Maintenance of pedestrian areas is also crucial, not just for aesthetics but also for safety and concerns for falling, again as evidenced by older people themselves: IDGO research has found how important ease of movement is especially, with cracked or poorly maintained pavements hampering walking, how to improve tactile pavements (Ormerod, 2012), what materials to use (Newton and Ormerod, 2007a)
- Lack of Public Conveniences and the importance of seating (Newton, 2007).
- Layout of streets themselves makes them inapproachable. In particular older people mention
    - issues with speeding and busy traffic as well as queuing traffic.
    - narrow pavements can be barriers to walking, especially those used for other things like storage of bins, parked cars and shop A-boards, for example.

3. Creating better public spaces

Much has been written about creating positive urban public space over the years. Some excellent work was carried out in the 1950s and 60s by William Whyte (his excellent film, Social Life of Small Urban Spaces, highly recommended, can be seen at https://archive.org/details/SmallUrbanSpaces). The seminal work of Jan Gehl (1987) and of Donald Appleyard (see Appleyard et al., 1981) highlighted the need to keep public spaces human and the importance of recognising the negative impact of the growing number of private vehicles including cars and vans on local roads. There is a need to move away from viewing urban areas as places for movement but to see them as spaces for dwelling, for being, for creating place and home. This has integrated its way into guidance now used in street design in the UK in Manual for Streets (for local residential areas) and Manual for Streets 2 (for use of busier High Streets and streets of mixed use).

More recently CABE (2011) and urban designers like Shaftoe (2008) in his excellent book, *Convivial Urban Spaces*, highlight the need to make public spaces attractive to the user, so that people want to come and spend time within them. They all highlight the need to address spaces not just in terms of their utilitarian and practical assets but also in terms of their aesthetic and psychosocial qualities. In particular urban spaces should be:-

Character – streets should have character and reflect local identify, history and culture. Utilising local materials as well as art and architecture can help enhance distinct and unique character and identity (see figure 1).

Figure 1: Use of local stone give pavements character and break up the public realm

Continuity and enclosure - where public and private spaces are easily distinguished.

Quality public realm – good quality materials, easily maintained and replaced.

Ease of movement - should be enhanced for all users, along with permission to stop and dwell through benches and places to lean and creating focal points to commune at including fountains, works of art, sculptures, memorials or trees, gardens and other greenery.

Legibility – area should be designed in a way that is easy to understand and interpret, not just with signage but with other visual and tactile cues as well to help determine legitimacy in activity and determine use.

Adaptability –The place should be built to adapt to changes in the needs of users, policy and legislation over time.

Diversity and choice – Allowing area to be used by a large variety of individuals and uses, with minimum exclusion

These elements can be placed around three key themes, (1) a safe and accessible space; (2) a legible meaningful space; (3) a distinctive and aesthetically pleasing space (see table 1; after Musselwhite, 2016).

(1) Safe and accessible space – feel you are safe there	**Ease of movement**	Movement mixed with ability to pause and dwell through adequate provision of benches and toilets. Space should be well looked after to facilitate movement, allowing people to have room to share the space, to move safely with other users with special provision for walking and cycling provided as appropriate,
(2) Legible place. Psychological attachment and legitimacy - feel you should be there	**Legibility**	Area should be designed utilising affordability criteria. It should be easy to decipher what the user is supposed to do in the space. This can be achieved through signage but also other points in the environment. Space should be clearly designed to show where movement is to take place and where spaces to relax are created, for example places to sit, perch or lean. Focal points to commune at should be included at appropriate junctures, including fountains, works of art, sculptures, memorials or trees, gardens and other greenery.

	Adaptability	The place must take into account changing needs of the population and should be designed to adapt or be easily adapted to new users, policy and legislation over time.
	Diversity and choice	Area must be designed to carefully consider all user groups needs are met and that people from certain groups are not excluded from using spaces.
(3) Distinctive and aesthetically pleasing – somewhere you want to go and spend time – feel you want to be there	**Character**	Local public realm should have clear character that reflects local identity, culture and history. Utilising local art and architecture can help enhance distinct and unique character and identity.
	Continuity	Spaces should be designed to carefully show where one type of activity starts and another ends. Movement spaces can look and feel differently to spaces to dwell in, for example. Spaces for use by pedestrians must clearly start and end when spaces dominated by vehicles begin. Use of gateway style features and changes in textures can enable this to be clearly realised.
	Quality public realm	The public realm must be made from good quality, distinctive and easy to maintain material.

Table 1: Designing streets for older people based on CABE (2011) principles (adapted from Musselwhite, 2016).

4. Improving street design at a strategic, policy and practitioner level

Study the Humanity of the Street: To design a street network, there needs to be a full understanding of the needs, wishes and desires of the users, including understanding of issues and problems. Transport planning in all countries has for too long over relied on statistics, models and technical manuals and guidelines at the expense of beauty, harmony, interiority and anima and this has inevitably led to the development of bland, vehicle-centric roads and streets with little understanding of humanness or humanity (King, 1991). There has also been an over reliance on collecting vehicular data at the expense of pedestrian or cyclist behaviour adding to a imbalance of representation when designing streets.

Aesthetics, art and beauty (Musselwhite et al., submitted): Overall the changes to streets need to be prepared with consideration of beauty, harmony and nature. Traffic calming measures have a bad name for themselves because they have traditionally been implemented using poor materials or in a harsh manner. There may be better ways: using natural calming methods; utilising cattle grids, hedges

or overhanging trees as gateways; or psychological calming – the use of narrowing (by trees or hedges, for example) or altering perceptual cues (for example using road markings to create the impression of narrower roads or to eradicate road markings altogether) has had some success, for example (for reviews see Elliott et al., 2003 and Kennedy et al., 2005).

5. Conclsuion

How do we create public spaces that are attractive to older people? Can we take the CABE guidelines and apply them? In terms of character and art, research by IDGO suggests art works are popular with older people, especially statues and water features (Newton and Ormerod, 2007b). Creating a sense of distinctiveness about an area can help those with cognitive decline and dementia by create a more legible space (Burton and Mitchell, 2006). Excellent work by IDGO project looks at the utilitarian and practical improvements that can be made in the environment improving the ease of movement and quality of public realm. IDGO research has found how important ease of movement is especially, with cracked or poorly maintained pavements hampering walking, how to improve tactile pavements (Ormerod, 2012), what materials to use (Newton and Ormerod, 2007a) and the importance of seating among other things (Newton, 2007). My own work has warned we don't allow enough time for older people to cross roads, that we design for young middle-class fit males (Musselwhite, in press). I even found older people from higher socio-economic status walk faster and don't give-way to other walkers as often (Musselwhite, 2015). Legibility does not always have to be constant; people can adapt as with new designs. Hammond and Musselwhite (2013) found older people are able to adapt to changes in the urban environment that allow vehicles and pedestrians to use the same space; they were fine using shared space. However, we studied Widemarsh Street, Hereford (figure 2), an area of low traffic volume, maybe more of an issue in the high traffic volume areas a hinted at by Melia and Moody (2013). But, spaces that are too open and wide can also be viewed negatively, even if they are totally pedestrianised, difficulty in finding orientation for those with cognitive impairments or visual difficulties or by creating a lack of space for refuge or sitting (Atkin, 2012). So a balance needs to be struck.

Figure 2: Shared space in Hereford, United Kingdom.

There is far less known about how urban design effects place attachment, an important concept in later life with its relationship to health, wellbeing as a result of ageing in place and independency agendas. In a study on High Streets, legibility and comfort are seen to be associated with place attachment for those of all ages, the street must be seen to be providing for needs and afford spaces to dwell, sit and perform the activities (Ujang, 2012). What is the relationship between psychosocial and environmental aspects of the built environment? How do they relate together? Could the absence of one be balanced by good provision of the other (for example poor urban design but high social cohesion)?

But more work is needed on linking the excellent work of urban designers and older people, can we adapt the messages of one to older people themselves. There is often an urban myth that design for older people is a design for all? But is it? Aren't older people more likely to be qualitatively different from younger people, not just different in physical capability or need but in terms of desirability and wishes when considering their wider social context? Do they have more time to dwell? Different work and life patterns means they are likely to use the spaces at the same time as others? Whatever the issue, we need to start creating spaces for people and with people. Hence, there is a real need to start co-producing public spaces with older people themselves.

References

Appleyard, D., Gerson, M. S., & Lintell, M. (1981). Livable streets. Berkeley: University of California Press.ADPH. *Take action on active travel 2010.*

Atkin, R. (2010). *Sight Line. Designing Better Streets for People with Low Vision.* Helen Hamlyn Centre, Royal College of Art, London.

Burton E. and Mitchell L. 2006. *Inclusive Urban Design: Streets for life.* Oxford, Architectural Press.

CABE (2011). Seven principles of good design http://webarchive.nationalarchives.gov.uk/20110118095356/http:/www.cabe.org.uk/councillors/principles (last accessed 25 July 2017)

Hamer, M. & Chida, Y. (2008). Walking and primary prevention: a meta-analysis of prospective cohort studies. British Journal of Sports Medicine 42: 238-243

Gehl, J. (1987). Life between buildings: Using public space. New York: Van Nostrand Reinhold

Hammond, V. and Musselwhite, C B A (2013). The attitudes, perceptions and concerns of pedestrians and vulnerable road users to shared space: a case study from the UK. *Journal Of Urban Design* **18(1)**, 78-97

Moody, S. and Melia, S. (2013) Shared space: Research, policy and problems. Proceedings of the Institution of Chartered Civil Engineers – Transport. Available at http://www.icevirtuallibrary.com/content/article/10.1680/tran.12.00047 (Last accessed 25 July 2017).

Musselwhite, C.B.A. (2011). *Successfully giving up driving for older people.* Discussion Paper. International Longevity Centre - UK.

Musselwhite, C.B.A. (2015). Environment-person interactions enabling walking in later life. *Transport Planning & Technology* **38(1),** 44-61

Musselwhite, C.B.A. (2016). Vision for an age friendly transport system in Wales, EnvisAGE, Age Cymru, 11, 14-23

Musselwhite, C.B.A. and Haddad, H. (2008). A Grounded Theory exploration into the driving and travel needs of older people. *Proc. 40th Universities Transport Study Group Conference*, University of Southampton, Portsmouth, January

Musselwhite, C.B.A. and Haddad, H. (2010). Mobility, accessibility and quality of later life. *Quality in Ageing and Older Adults*, *11*(1), 25-37.

Newton, R. (2007) The design of streets with older people in mind: Seating. IDGO Design guide

Newton, R. and Ormerod, M. (2007a). The design of streets with older people in mind: Materials of footways and footpaths. IDGO Design guide

Newton, R. and Ormerod, M. (2007b). The design of streets with older people in mind: Street art. IDGO Design guide

Ormerod, M. (2012). The design of streets with older people in mind: Tactile paving. IDGO Design guide

Shaftoe, H. (2008). *Convivial Urban Spaces: Creating Effective Public Spaces*, London: Earthscan

Sinnett, D., Williams, K., Chatterjee, K. and Cavill, N. (2011) Making the case for investment in the walking environment: A review of the evidence. Technical Report. Living Streets, London

Ujang, N. (2012). Place Attachment and Continuity of Urban Place Identity. *Procedia - Social and Behavioral Sciences* **49,** 156 – 167