Institution: Kingston University		
Unit of Assessment: 12 – Engineering		
Title of case study: Enhancing older people's accessibility and activity in unfamiliar places through age-friendly planning		
Period when the underpinning research was undertaken: 2009 – 2017		
Details of staff conducting the underpinning research from the submitting unit:		
Names:	**Roles:**	**Periods employed by submitting HEI:**
Nigel Walford	Professor	Nov 1989 – present
Edgar Samarasundera	Research Associate	Feb 2009 – Aug 2010
Susan Pratt	Lecturer	Sept 2006 – Mar 2016
Period when the claimed impact occurred: Aug 2013 – 2020		
Is this case study continued from a case study submitted in 2014? N		

1. Summary of the impact

Despite an aging population, both in the UK and globally, the built environments older people live in are often unfriendly, unfamiliar and inaccessible. *Older People's Use of Unfamiliar Space (OPUS)* has had a significant impact on the way people look at the built environment. Both nationally and internationally, this change in understanding has resulted in concrete measures to improve accessibility for older people. Councils, national governments and international organisations, i.e. the European Commission and the WHO in Europe, have all included OPUS as the basis or evidence for policy regarding age-friendly built environments. In addition, OPUS has underpinned Public Health England efforts to encourage physical activity in older people.

2. Underpinning research

Since the release of the Active Ageing Framework in 2002 by the World Health Organization (WHO), increasing attention has been paid to the specific needs of older persons.
Previous research has shown that growing older in familiar places, otherwise known as 'ageing in place', can mitigate deterioration in cognitive and physical ability. Much of this research has focused on the environments of and around older people's residential accommodation. Less attention has been given to their experience of communal outdoor spaces, such as town centres, even as older people increasingly have the means and health to travel to new, unfamiliar environments.

Research by Walford and colleagues at Kingston University sought to understand how older people respond to unfamiliar environments by identifying triggers influencing their experience. The research project, entitled *Older People's Use of Unfamiliar Space (OPUS)*, was funded through and published by the UK Research Councils' *New Dynamics of Ageing* (NDA) *Programme* **[R1]**, in collaboration with Swansea University, and resulted in research outputs.

Uniting the different backgrounds of the researchers, which ranged from Walford's focus on spatial data, to Samarasundera's geographical focus, to Pratt's work with film, OPUS built on conceptual aspects of environmental gerontology **[R2]** to adopt a mixed methods approach to investigate older people's experiences of unfamiliar spaces. The researchers focused on understanding older people's responses to these spaces in terms of accessibility, design quality, and walkability (ease of navigation and wayfinding). The OPUS project involved over 40 older participants, and their response to an unfamiliar environment – Colchester**.** In preparation, the Kingston team undertook urban design and walkability audits in situ.

All participants individually viewed a 31-minute, filmed walking route round Colchester town centre in a 3D 'virtual reality cave'. Questionnaires were used to assess cognitive variability. Participants watched the 31 minute filmed walking route around Colchester town centre, narrating their response which was captured on a digital recorder, while their physical responses were also monitored. The quality of the built environment was measured using these narratives and recorded physical responses. 12 participants visited Colchester and its town centre, where they explored the environment independently, and met with local older residents and town planners. These participants worked with members of the Kingston team to validate the urban design quality and walkability assessment audits. **[R3, R4]**

Analysis of these interrelated and integrated datasets - the oral narratives; physiological measurements; street walkability and urban design audits; and the participant survey - in combination and separately - has been published in several research outputs.

The research determined that age-friendly urban design features:

- Sightlines to buildings and other landmarks, especially those of historical significance. These are important navigational aids which assist wayfinding and with developing a rudimentary mental image of unfamiliar town centres **[R2, R4]**
- Signage in town centres and at key transport hubs. These should be positioned appropriately for older people and importantly indicate both distance and typical walking time to the destination **[R4, R5]**.

The research determined that more walkable built environments would feature:

- Easily navigable urban outdoor spaces. These are less stressful and more accessible from both emotional and physiological perspectives **[R3, R5]**.
- Familiar town centre brands (e.g. national retailers). These help to make unfamiliar environments less stressful as they can provide a psychological connection with familiar urban spaces **[R4, R5]**.

Interaction between older visitors to the town and similarly aged locals. This can help to clarify uncertainties over accepted norms in the navigation of such environments **[R6]**.

3. References to the research

The following articles and chapters have been published in international, peer reviewed journals and two books edited by the New Dynamics of Aging programme coordinator, Prof. Alan Walker. This reflects the innovative and interdisciplinary nature of the research carried out through this multi-project programme.

R1 – Phillips, J., **Walford, N**., Hockey, A., Lewis, M. and Foreman, N. (2018) Negotiating unfamiliar environments. *In:* Walker, Alan, (ed.) *The New Dynamics of Ageing. Volume 2.* Bristol, UK: Policy Press. pp. 35-50. ISBN 9781447314790

R2 – Phillips, J., **Walford, N**., and Hockey, A. (2011). 'How do unfamiliar environments convey meaning to older people? Urban dimensions of placelessness and attachment', *International Journal of Ageing and Later Life,* 6 (2), 73–102. DOI: 10.3384/ijal.1652-8670.116273

R3 – **Walford, N**., Phillips. J., Hockey, A. and **Pratt, S.** (2017) Assessing the needs of older people in urban settings: integration of emotive, physiological and built environment data, Geo: Geography and Environment, 4(1), e00037. DOI: 10.1002/geo2.37 REF2ID: 12-084-1638

R4 – **Walford, N**., **Samarasundera, E.**, Phillips, J., Hockey, A., and Foreman, N. (2011). 'Older people's navigation of urban areas as pedestrians: measuring quality of the built environment using oral narratives and virtual routes', *Landscape and Urban Planning,* 100 (1-2). 163-168. DOI: 10.1016/j.landurbplan.2010.12.006

R5 – Phillips, J., **Walford, N.**, Hockey, A., Foreman, N., Lewis, M. (2013). Older People and Outdoor Environments: Pedestrian anxieties and barriers in the use of familiar and unfamiliar spaces, *Geoforum*, 47, 113–124. DOI: 10.1016/j.geoforum.2013.04.002

R6 – Hockey, A., Phillips, J. and **Walford, N**. (2013). 'Planning for an Ageing Society', *Planning Practice and Research*, 28 (5), 527-543. DOI: 10.1080/02697459.2013.820039

Grant title: Older People's Use of Unfamiliar Space (OPUS).
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Start and completion dates: February 2008 – April 2010
Value of the Grant: GBP256,811

4. Details of the impact

The OPUS project has had a significant impact on urban design policy at local, national and international levels: beginning with the local council in Colchester, where the research took place, its findings have been taken up by a range of bodies in the UK and across Europe. This has benefitted more and more older people, as planning and design policy has taken their experiences into account.

Councils' Local Planning

OPUS' findings first impacted spatial planning and design at the council level, raising awareness of the accessibility needs of older people as they navigate town centres, particularly in ageing societies. Local authorities have increasingly acknowledged that good urban design standards consider not only physical accessibility of buildings and other infrastructure, but also take account of mobility and navigation for all through public spaces. In their Better Town Centre plan, Colchester Borough Council used the OPUS project as a core evidence base to guide for planning policy for the town centre. They stated '*New wayfinding measures will be informed by the findings of research involving older people's use of Colchester'*; their policy documents link to and name the OPUS project. The plan also incorporated OPUS' findings on the need to highlight landmarks and for the correct positioning of signage **[S1]**. First adopted as planning guidance in 2012, this document continues to provide '*guidance on the Council's planning policies and process'*, in determining planning applications **[S1]**. The OPUS study also features as part of the evidence base informing the Environment aspect of the council's Emerging Local Plan 2017 – 2033 **[S1]**.

In October 2013, North Somerset Council Access Officer Anthony Rylands uploaded NDA4-OPUS to the Design Standards (Environment) space, ranking it as 'useful' **[S2]**. In 2014 the North Somerset Council produced 'People with Dementia and the Physical Environment' to highlight issues that urban designers needed to consider **[S2]**. In this document, the Equality and Diversity team cited and applied the OPUS findings, stating that '*landmarks are important navigational aids'* and requiring townscape designers to consider people's mental maps and reactions to unfamiliar cues.

Activity for Age-Friendly Nations

In 2015, Age Cymru, a national charity working to improve the lives of all older people in Wales, explicitly drew attention to the work of the OPUS project. A citation was included in their response to the Welsh Government's consultation document 'Design in the Planning Process', thus using the OPUS project to inform the policy debate **[S3]**. Informed by this consultation, the Welsh government decided to keep mandatory Design and Access statements for urban areas, with guidance that makes note of wayfinding systems and emphasises inclusive design principles. Shining a light on the built environment in Welsh communities in 2016, further evidence was drawn by Age Cymru from OPUS to promote accessible and inclusive age-friendly environments **[S4]**.

The results of the OPUS study have been used a number of times by the U.K. Government:

- In September 2014, Public Health England (PHE) drew from OPUS in their Everybody Active, Every Day - an implementation and evidence guide to address the nation's inactivity epidemic. It used OPUS findings to support its claims that local government had the responsibility to regulate, lead on and design age-friendly, healthy environments which promote a feeling of safety and security **[S5].**
- In March 2015, the Government Office for Science (GO-Science) commissioned a Foresight evidence review about mobility and ageing **[S6]**. Citing OPUS **[R2]**, they stressed the importance of '*the meanings and values attached to places and the perceptions of an environment that can give people confidence in a place*'. GO-Science recommended that '*mobility policies should be sensitive to' the diversity of different age groups*' and that the '*design of the built environment can enable older people to access their neighbourhood*'. In 2016, The 'Future of an Ageing Population' final report, for which the evidence was purposed, listed as a key finding that '*A well-designed built environment can maximise the physical mobility of older people*' **[S7]**.
- In July 2016, Nazhut Ali, PHE Lead, Older Adults, Health and Well Being, drew the link between access and activity in her presentation 'Older People and Physical Activity Outdoors' at a seminar day for academic, government and third sector organisations **[S8]**. Noting how regular physical activity can reduce many physical and mental diseases, medical visits, and social isolation, Ali critiqued the barriers preventing older people from accessing the outdoors, citing OPUS **[R4]**. This demonstrates how PHE's strategy for activity is underpinned by OPUS' findings about quality of access.
- In June 2017, GO-Science furthered this access agenda by releasing workshop materials to support policymakers, such as the Scottish government's Strategy Unit, to produce new policy recommendations. These materials cite the original evidence review **[S6]**, emphasising that '*access is a key component*' of neighbourhoods' maximising their contribution to older people's wellbeing.

Policy makers in the UK have, from the findings of OPUS, learnt about and promoted age-inclusive design for a demographically ageing country. Through this strategic direction, OPUS has supported the well-being and independence for older people throughout the country.

International Policy for Ageing Populations

A 2017 joint project between the European Commission's Directorate-General for Employment, Social Affairs and Inclusion and the WHO Regional Office for Europe published, in 2018, the policy action handbook 'Age-friendly environments in Europe' **[S9]**. Written primarily for local politicians, regional authorities, planners, and representatives of older people, this handbook cites OPUS frequently in the section 'Urban environments that support belonging, continuity and sense of self' and the subsection describing the important impact of feelings upon the use of place. Recommendations from this section to EU member states include five policy interventions and initiatives for local action plans. These work towards the UN Sustainable Development Goal 11 – making cities safe and accessible for the elderly.

The project also stimulated public debate over various assumptions about elderly people. Guardian columnist Michele Hanson opened up a public dialogue about the NDA findings, including the OPUS results that urban space can be a 'worrisome environment, and doesn't always do your cardiac function much good' **[S10],** resulting in a widely commented discussion. OPUS has provided an evidence base and a framework for policy makers to transform this 'worrisome environment'.

5. Sources to corroborate the impact

S1 – Colchester Borough Council Policy Documentation

S2 – North Somerset Council Uploads and Policies

S3 – Welsh Government Published responses to Design in the Planning Process Consultation, June 2015 (Citation on pp.132-33).

S4 – Age Cymru Envisage Report, 2016

S5 – Public Health England Report Everybody Active, Every Day!, September 2014

S6 – Go-Science Foresight evidence review, March 2015

S7 – Go-Science report: Future of an Ageing Population project, July 2016

S8 – Nazhut Ali, An active space for older adults Presentation,1 July 2016

S9 – AFEE Handbook, published in January 2018

S10 – Michele Hanson 'Shopping is hell for us older people' Guardian Article, 15 May 2016