

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

John McIntyre Conference Centre, Edinburgh

11th - 14th October 2016

Proceedings

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Keynotes

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Keeping people mobile and happy: What role for city planning?

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In the 21st century, globally we are facing massive health challenges: increases in physical inactivity, unhealthy diets, non-communicable diseases (NCDs), mental ill health, road trauma, and obesity combined with population growth, an aging population, rapid urbanisation, traffic congestion and climate change.¹ Optimising city planning to promote physical and mental health and community wellbeing, to meet these challenges is therefore critical.

Cities that promote active living are not only good for individual and population health, but also good for the planet.² Indeed, managing climate change is now seen as one of the biggest opportunities for population health in the 21st: the strategies required to transition cities away from motor vehicle dependency to energy efficient behaviours, have great potential to also reduce chronic disease and promote health and wellbeing.²

To date, most active living research has focussed on local urban design to support the creation of pedestrian- and cycling-friendly communities. Clearly, this is important. A recent paper examining urban design in 14 cities across the globe, found a 68-89 minute per week difference in walking between people who lived in the most, compared with the least, activity-friendly neighbourhoods.³ This is 45-50% of the 150 minute per week recommended levels of physical activity. Local urban design is therefore critical.

However, to achieve health-promoting cities that promote mobility, mood and health equity requires integrated regional urban and transport planning, as well as pedestrian-friendly local urban design. The mix of interventions to be delivered will be determined locally depending upon existing resources and local community needs, including the needs of an ageing population. However, the overall goal must be to create healthy, liveable communities that promote health and wellbeing.

What is a healthy, liveable community? It is safe, socially cohesive and environmentally sustainable, with affordable housing linked via public transport, walking and cycling to employment, public open space and all the shops and services required for daily living.^{4, 5} These policies work together to create the urban and transport planning interventions that encourage active living.

Despite widespread recognition that these factors are all important, there is limited evidence about how well these policies are being implemented in practice; what their impact is; or indeed, how to optimise these policies to produce health and wellbeing outcomes. For example, a study evaluating the implementation of a government policy designed to create more liveable neighbourhoods, found that the policy was only 47% implemented, but for every 10% increase in implementation, the odds of people walking for transport increased for 50%.⁶ On the other hand, although it is well known that public open space is important for both physical and mental health, there is little evidence to inform public open space standards (how much, the size and the desirable proximity of public open space) to encourage physical activity, and enhance mental health outcomes.⁷ This dearth of high quality evidence to inform policy and practice impairs the potential of city planning policies to enhance health and wellbeing.

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There is therefore an urgent need for enhanced research partnerships between city planners and academics to co-create evidence that informs policies and practice. As Larry Green once commented: if we want evidence-based policy, there is a need for policy-based evidence. When research is policy-relevant, researchers understand the policy world they are trying to influence, and design research in partnership with policy-makers. The research is designed to study which policies are most effective in optimising health outcomes; where leakages might be occurring between good policy and its implementation on-the-ground. The research could also be designed to inform policy standards: how much, in what location, and under what circumstances. It would incorporate study designs and questions that are policy-relevant: For example, what is the economic benefit of this intervention? What would make the intervention more cost-effective?

This talk will present national and local research on 'liveability' being undertaken in Australia by the Place, Health and Liveability team at the University of Melbourne. It involves creating policy-relevant indicators of seven domains of liveability (walkability, access to public transport, public open space, healthy food choices, affordable housing, employment and social infrastructure); and studying associations with a range of risk factors for chronic disease outcomes, including walking, healthy eating, self-rated health, obesity and mental health. The final set of indicators are being mapped across the city, to identify areas of inequities that warrant intervention.

Cities across the globe are facing unprecedented challenges in the 21st century. There is great potential for active living evidence to inform policy about cost-effective interventions that would assist city planners and the community to confront those challenges in a way that keeps growing urban populations mobile and happy as they age.

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The Age-Friendly Cities Movement: An Evolving Concept in Health Promotion for Seniors

Gloria Gutman

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As Victor Hugo said there is nothing more powerful than an idea whose time has come. The Age-friendly Cities (AFC) movement and the movement to create a World Elder Abuse Awareness Day (WEAAD) are two examples of concepts launched in 2006 that were broadly embraced by the gerontological research and practice community, its supporters and partners. The former is the focus of this presentation which will begin with a brief history of the AFC movement as conceptualized and operationalized by the WHO Programme on Ageing and Life Course headquartered in Geneva and implemented by local communities worldwide. Examples will be provided of outputs and impact - what it has accomplished to date at the global and at local levels, and lessons learned. Attention will then turn to research and knowledge gaps - what we don't know about AFCs - and to new initiatives and plans that WHO has to address these gaps. In the process, the presentation will describe the evolution of the AFC movement and the concepts and principles that underpin it.

Key concepts and Principles: The first of these is *Active Ageing* and the three pillar policy framework that supports it, developed by WHO as its contribution to the Second United Nations World Assembly on Ageing held in Spain in 2002. The policy framework is guided by the *United Nations Principles for Older People* - these are independence, participation, care, self-fulfillment and dignity. The policy framework requires action on the three basic pillars - health, participation and security - in order for these principles to be achieved. A second key concept is the Life Course Approach, which recognizes that what and how one is as an old person is a product of what and how they were when younger and their life experiences. As applied to health, a key objective of this approach is the prevention of excess disability in the later years. This may take the form of policies and programs targeted upstream - to younger segments of the population as well as those directed to seniors themselves. Related to this approach, and reflecting the theme of the UN Year of the Older Person - i.e. a Society for all Ages - right from the start WHO underscored the idea that activities engaged in under the AFC banner would be good not just for seniors but for people of all ages. With respect to adaptations made to the physical environment - a classic example is the installation of curb cuts which facilitate mobility of both seniors in wheelchairs or using other mobility aids and moms pushing baby buggies or strollers.

Strengths and weaknesses: It is the all-encompassing nature of the vision that is, at once, its greatest strength and its biggest weakness. Caro and Fitzgerald (2016) provide case studies of AFC initiatives in Europe, Asia, and North America. These address barriers in the physical as well as the social and policy environments that limit the full participation of older persons in the life of their community, impact their health or quality of life. But are the barriers identified in the focus groups conducted in the participating cities of equal importance or those chosen to be addressed equally good for all seniors let alone both seniors and younger persons?

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Here I do not want to raise the spectre of intergenerational warfare - i.e. of younger and older citizens competing for scarce resources. Rather, as Golant (2014) notes, governments at all levels typically do not have sufficient budgets to target all the barriers identified in AFC focus groups and so choices have to be made. He asks whether certain problem categories should perhaps be given priority over others. For example, older people who lack social supports or those below the poverty level over those already receiving help from family or those of moderate income? He notes, also, that many of barriers addressed to date under the AFC banner constitute "low hanging fruit". For example, while important to do, fixing broken sidewalks or adding curb cuts are relatively easy tasks compared to rooting out the ageism that is still so pervasive in many sectors of our societies. It is exactly a priority setting exercise that WHO has undertaken recently. The presentation will describe the "priority issues" that it proposes to concentrate on over the next five years, one of which is ageism and another, elder abuse prevention and mitigation. As I have argued elsewhere (Gutman, 2014) the AFC movement needs to address elder abuse. While examples exist of some cities that have done so, they constitute a small minority. All need to take up the cause; a city that does not, cannot in this author's opinion, be an age-friendly city.

The power of partnerships: A theme that pervades the case studies and other chapters in Caro and Fitzgerald's book concerns collaboration - between the individual or group that has championed a particular city embracing the AFC concept and local, regional or national government agencies, NGOs, universities, and other social movements. Various of the chapters also draw attention to the importance of building on or partnering with initiatives that have goals that overlap with those of the AFC movement - such as AARP's Livable Communities Program, the U.S. Environmental Protection Agency's Building Healthy Communities for Active Aging Award Program, and the Age-Friendly Environments in Europe (AFEE) Project. As Caro and Fitzgerald point out in their introduction to the book, the latter is a joint project of the European Commission and the WHO Regional Office for Europe. It has as its mandate the creation of tools designed to facilitate age-friendly work and to measure progress towards goal achievement (WHO Regional Office for Europe, 2014).

New key words: As a closing comment, in tracking the evolution of the AFC movement it is interesting to note the change in language that has occurred. First, the word "communities" was added - reflecting recognition that there was a need to consider the age-friendliness of rural and remote as well as urban settings since despite the trend to urbanization, there were still substantial numbers of older persons living in non-urban areas, particularly in less developed countries. Also, it reflected recognition that within cities, many of the AFC initiatives were taking place at the neighborhood level rather than city-wide. More recently, the trend has been to simply speak of age-friendly *environments*. This has the dual benefit of by-passing the rural-urban dichotomy and issues of how each is defined and moving us to think about environments in a broader sense. Specifically, of including, along with the traditional dimensions of natural vs built environment, social, political, economic and climatic considerations. Much attention has been drawn of late to the issue of social isolation and the negative impact it can have on the health and well-being of older persons. The negative impact is compounded in times of social and political unrest, economic downturns, and when disasters occur. Multi-dimensional impacts require multi-sectoral response.

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These are words we need to include in our key word searches as we review the literature on AFC achievements and what works and doesn't. We also need to move beyond talking about "successful ageing", or even "active ageing" and think about ways of assisting older people to maintain or improve functionality - i.e. to be able to do what they need to do and value in order to maximize their health and quality of life (WHO, 2015).

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Housing Happiness

Sarah Wigglesworth

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There is a generally-accepted agreement that we both create and are created by, the environment that surrounds us. This applies equally to the constructed world as it does to natural, which we conceptualise and perceive through cultural and philosophical frameworks. We understand instinctively how landscape and climate, population density and the distribution of material resources have come to shape people's attitudes and approaches to life. In the built environment, there is little doubt that there is a connection between our lived behaviour and the places we fashion to live in, work in and enjoy our leisure time.

Quite what this relationship is, however, is a contested and complex area, supported by surprisingly patchy research. While it seems obvious that there is an influence, it is equally obvious that it is far from being a direct causal relationship, as in 'a leads to b'. It is also clear that our response to our surroundings is coloured by our outlook on life, our identity, our personal circumstances and our mental and physical health, or what we now call wellbeing. Understandings of wellbeing accept that the concept goes beyond mere absence of illness, and includes factors that contribute to our happiness.

Research into the built environment tries to analyse what contribution it can make to the wellbeing equation. Recognising the issues of wellbeing as they relate to older people provides plenty of challenges for researchers in this area who are trying better to understand how the built environment works for them. Yet for the designer, the challenges are perhaps even greater. Every design project is unique in time and place, and addresses issues specific to individuals and to communities. In this respect, every building is a prototype of one. Most built projects are not analysed after they are occupied, they change over time as new people occupy them, bringing different attitudes and understandings in their wake. As a result of this complex dynamic, any lessons learned can be difficult to translate from project to project.

There is relatively well-documented research into the effects of good design on the lives of specific groups of people. Well-designed schools have been shown to contribute (along with other factors) to higher learning achievement in pupils, with less bullying and improved behaviour. Well-designed office buildings are more productive, and people get well quicker in hospitals that are aesthetically-pleasing and humanised environments. Everyone is drawn to a beautiful, high quality place. Well-designed buildings can save energy and, through careful material selection, avoid poisoning people and the planet, which helps maintain health. Key to all these results is an understanding of what makes a place uniquely responsive, to climate change, to its setting and to its citizens, projecting these issues, as far as they can, into the future. Designers need to understand this uniqueness by careful, respectful research into the history and character of a place, while putting their feet in the shoes of a building's occupants in order better to understand the meaning, relevance and practical needs of those that will use it. By gaining a better understanding of, and involving users in, the debate about what wellbeing means to them, we as designers will have a better chance of addressing that meaning, making the built environment play a more positive role in shaping people's lived experience.

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Older people are a group that is largely ignored in the design of neighbourhoods and housing. Historically, volume house-builders addressed their product at families, but have generally failed to respond to current demographic changes. Moreover, the older population is typically considered as unified, whereas in fact it is a very wide age range with changing interests and requirements. Housing designed for older people often provides a typical solution that assumes a typical older person, and, like many housing products, markets a housing solution that is good for business but which does not necessarily recognise the evolving needs of this group as they age.

In reality there are as many different types of older person as there are younger people, with their differing wants and needs and different aspirations and capabilities. Our research set out to discover what design could contribute to the wellbeing of the older population by working with several communities of older people in Sheffield. Our method has been to work side by side to explore the desires of older people themselves, recapturing the silent voices and overlooked knowledge that resides in every older person's lifelong experience. Our aim was to discover what matters to them so we could develop proposals that would seriously address the wellbeing of this growing section of the population.

The DWELL project, based at the University of Sheffield, has worked for three years collaboratively with older residents in Sheffield's neighbourhoods, trying to find out what matters to them in the choice of housing in later life. Using co-design workshops as a means to teasing out issues, our collaborators have given their insights and together we have developed designs for a wide range of housing and flats that address their aspirations, paying particular attention to their wellbeing and mobility. Our work has extended to the public realm, where many aspects of the streetscape and the neighbourhood affect the autonomy of older people and should be regarded as essential aspects of creating an environment where wellbeing can thrive.

While the design of cities has been dominated by technical thinking we need to argue for the value of beauty and sensuality in the built environment, re-evaluating the importance of the aspects of life that feed our feelings of self-esteem, enable sociability and allow us to manage our own affairs. We make the case for involving people in the shaping of their homes and neighbourhoods and for the designer to prioritise the sensual, tactile character of place. Only by placing greater value on those aspects that feed our wellbeing will we reap positive rewards from the built environment.

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Plenaries

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Mobility, Mood and Place: Age-friendly environments

Catharine Ward Thompson¹, Iain Scott¹, Katherine Brookfield¹, Anthea Tinker², Neil Thin¹, Gillian Mead¹, Richard Coyne¹ & John Starr¹
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This presentation focuses on Mobility, Mood and Place, a three-year research project funded through the cross-council programme, Lifelong Health and Wellbeing (LLHW), under the theme *Design for Wellbeing: Ageing and Mobility in the Built Environment¹*.

As the project draws to a close, the presentation takes a broad overview of three years of interdisciplinary research exploring how places can be designed collaboratively to make pedestrian mobility easy, enjoyable and meaningful for older people.

In particular, the plenary focuses on the first of three inter-related work packages, *Co-created environments*, which addresses the fact that, all too often, the people who use environments day-to-day are left out of the design process (which, for older people, can feel particularly alienating).

It looks back at the methods of, and findings from, a range of co-design activities in Manchester, London and Orkney in which researchers, architecture and landscape architecture students, and older participants came together to envision places which are inclusive, enabling and inspirational.

In addition to the plenary, conference delegates will be able to view an exhibition of co-designed proposals for sites in Manchester, London and Orkney.

The exhibition was first shown at the 45th Annual Conference of the British Society of Gerontology at the University of Stirling in July 2016. On the UN International Day of Older Persons (1st October) 2016, it opened in The Lighthouse, Glasgow, as part of Architecture and Design Scotland's 'Say Hello to Architecture' programme, the Year of Innovation, Architecture and Design 2016, and the Festival of Architecture.

¹This theme is led by the Engineering and Physical Sciences Research Council (EPSRC) in collaboration with the Arts & Humanities Research Council (AHRC) and the Economic and Social Research Council (ESRC).

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Mobility, Mood and Place: Ageing, environment and affect

Chris Neale¹, Sara Tilley², Richard Coyne², Jenny Roe³, Peter Aspinall⁴, Steve Cinderby¹, Panos Mavros⁵, Neil Thin² & Catharine Ward Thompson²
University of York¹, University of Edinburgh², University of Virginia³, Heriot-Watt University⁴ and Singapore ETH-Centre⁵

This presentation focuses on the second of Mobility, Mood and Place's inter-related work packages, *Environment and affect*.

In this work package, researchers have been exploring older people's interactions with different types of environments using a variety of 'real-time' methods.

The plenary gives a broad overview of the team's four research objectives, which were to:

1. Attempt to assess differences in neural activity associated with walking between different urban environments.
2. Understand how these differences align with subjective wellbeing.
3. Investigate how mood and emotion, as well as features of the urban environment affect mobility choices.
4. Pilot a synergy of qualitative and quantitative methods.

It also looks at the methods used, including:

- Mobile neural imaging (electroencephalography (EEG)) outputs (raw and proprietary software)
- Subjective wellbeing measures
- Walking interviews
- Video elicitation interviews and subjective scales to compare with EEG outputs
- Spatial mapping to understand real time responses to features of the environment

The objectives and methods are looked at, in-depth, in the following oral presentations:

- 'In the mood for a walk in the park:
Assessing the quality of outdoor walking amongst the over 65s'
- 'Older people's experiences of mobility and mood in an urban environment:
a mixed methods approach'
- 'Mapping brain imaging as a measure of emotional wellbeing in older people walking in
different urban spaces'

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Mobility, Mood and Place: The lifecourse of places, health and mobility

*Jamie Pearce, Niamh Shortt, Ian Deary, Mark Cherrie, Catherine Tisch,
John Starr & Catharine Ward Thompson*
University of Edinburgh

Our health and mobility are intrinsically linked with the quality of our local environment. All sorts of things affect us, from housing density and neighbourhood deprivation to access to green space.

In the third Mobility, Mood and Place work package, *Lifecourse of places, health and mobility*, researchers have been exploring how physical, built and social environments evolve over time and how they impact on inequalities in health-related mobility as people move into older age.

This plenary gives an overview of the range of data sources, methods and analyses the team have used, including lifetime residential information collected from members of the 1936 Lothian Birth Cohort, together with temporal, area-level measures of their current, recent and past environment taken from censuses, historical maps, city plans, aerial photography and historical land use data.

Aspects of this research are also discussed, in depth, in the oral presentation 'Historic greenspace exposure and cognitive ageing in Edinburgh, Scotland: A prospective longitudinal study'.

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Mobility, Mood and Place: The involvement agenda and the A-Z of Co-Design

Katherine Brookfield

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Co-design, or participatory design, is about the meaningful involvement of end users in the design process. The final Mobility, Mood and Place plenary launches our bite-sized *A-Z of Co-Design*, a folding wallchart exploring participatory design's origins, methods and techniques, key roles, principles and issues.

Many of the hints and tips are based on our own experiences of delivering a rich, varied programme of co-design activities as part of Mobility, Mood and Place. We've combined insights from this work with those of experts from a range of fields - from planning to design, geography to health, sociology to gerontology.

The publication is extensively referenced and we hope users will find it to be a handy, practical guide which is both supportive and inspirational.

We would like to thank the Centre for Accessible Environments (CAE) for supporting the publication's development.

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Presentations

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Designing age-friendly societies: Impact of urban regeneration on mobility and physical activity in older adults

Deepti Adlakha, Mark Tully & Frank Kee

Queen's University Belfast

Background

Emerging evidence highlights that interactions between the built and social environment can facilitate or constrain physical activity (PA). However, few studies address how this impacts older adults' mobility, PA, and health. The Connswater Community Greenway (CCG) is a natural experiment which provided an opportunity to evaluate the public health impact of a major urban regeneration project in Belfast, Northern Ireland, UK. The CCG aims to physically reconnect local communities by creating a 9 km linear park with enhanced opportunities for PA through BE improvements including construction of footpaths, bicycle paths, bridges, and walkways.

Aims

This qualitative study assess impacts of the CCG on older adults' mobility and PA.

Methods

Semi-structured interviews were conducted with a purposive sample of adults (N=29), including older adults (N=11), on perceptions of their physical (e.g., walking, bicycling infrastructure) and social (e.g., safety, social networks, culture) environment. Interview data was coded and thematically analysed using NVivo software.

Results

Themes from interviews highlighted that environments that supported walking also promoted social interactions through greater likelihood of meeting others. Despite reduced social networks among older adults, the presence of pedestrian infrastructure such as sidewalks and crosswalks encouraged them to walk to destinations. They valued experiences of sitting on a bench, watching people, and the informal interactions these locations provided. This generated a sense of community connectedness.

Conclusions

By evaluating the social and built environment through a 'real world' natural experiment, this study provides a better understanding of factors that encourage older adults to remain active and for the design of age-friendly societies.

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Physical environments and community reintegration post stroke

Katherine Brookfield and Gillian Mead

University of Edinburgh

In the context of stroke, community reintegration commonly refers to a stroke survivor's return to functional, social and recreational activities, and interactions with family members, friends and others. Poor community reintegration has been associated with a poor quality of life. It is therefore concerning that many stroke survivors report problems and difficulties in community reintegration.

Studies have considered the role of various person-related and social factors in community reintegration. Although potentially relevant, few studies have reflected on the role of the physical environment.

In response, drawing on focus group discussions completed with 29 persons with experience of stroke, recruited from community stroke clubs in Scotland, this presentation examines the environment's role in community reintegration and reviews the implications for policy and practice.

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What makes an environment age-friendly for walking and cycling?

Collaborative development of indicators with local stakeholders in Germany

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Background

Physical activity plays an important role for healthy ageing. There is compelling evidence that features of the urban built environment have a crucial impact on physical activity in terms of presence and quality of sidewalks and green spaces as well as on the accessibility to social infrastructure and local supply. However, this is not a commonly addressed topic of health authorities and urban planning departments in Germany.

Aims

The project AFOOT – securing urban mobility of an ageing population aims to initialise a strategic linkage of urban development and public health strategies as an intervention to meet mobility requirements of older adults in small- and medium-sized towns.

Methods

In three workshops with key actors of urban planning, transport, public health and senior and environment stakeholders of cities and municipalities in a metropolitan region in Germany a joint elaboration of indicators for walkability and bikeability was conducted.

Results

Safety issues like wide paths without barriers, lightning and crossing possibilities were assessed as important for older adults. Secondly, design of easy to understand environments, e.g. green corridors which lead the way or street design favouring low traffic speed were relevant aspects. Lastly, multifunctional places for all generations were demanded.

Conclusions

The indicators developed for more rural and suburban areas hardly differ from results of urban environments already described in the literature.

Nevertheless, interdisciplinary operating working groups enhance the mutual understanding of operating principles and policy space the stakeholders are facing and could encourage collaborative work to bring age-friendly urban development into action.

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Everyday Life and Older People's Well-being in Local High Streets

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Background

In the UK local high streets have traditionally been at the core of everyday life in towns and cities, supporting patterns of local mobility and consumption. However there has been little attempt to understand the importance of the high street in the everyday lives of older adults. As a result, we have limited understanding of how these settings can be designed and managed to offer material and social opportunities for improving the well-being of older people ageing in place.

Aims

To understand how local high streets can support the well-being of older adults, and how this learning can inform their improvement for an ageing-in-place agenda.

Methods

Eighty-four (84) retired people (61 - 97) living independently were interviewed either individually, in small groups or as walk-along interviews, in three different locations in Edinburgh (UK). The findings were thematically analysed to develop an understanding of how the well-being of older adults is supported through everyday practices in local high streets.

Findings

Several dimensions of well-being are supported by local High Streets. Going 'out and about' at these locales can be an enjoyable everyday activity tapping into positive emotions and happiness, and leading to feelings of attachment and belonging.

From fleeting to more intimate social interactions, local high streets provide places and opportunities for reducing isolation, offering restorative experiences away from the home. As "community-hubs", they may support participation and role fulfilment in old age.

Finally, proximity and ease of access to services and amenities can foster personal autonomy and sense of control, allowing for completion of activities of everyday living at a local level.

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Health, Wealth and Urban Retirement Investment Trajectories of Artisanal Gold Miners in East Africa

Deborah Bryceson¹ & Jesper Bosse Jonsson²

University of Edinburgh¹ and COWI Tanzania²

For the past three decades, hundreds of thousands of male artisanal miners have migrated to gold rush strikes in north-western Tanzania. They become part of an artisanal mining fraternity that risks danger, debt, disease and death hard-rock mining in remote, mineral-rich locations south of Lake Victoria. Moving from one gold rush site to the next, their high mobility and makeshift housing mask the fact that some have managed to amass considerable savings. Local villagers and Tanzanian government administrators are wary of their presence and lifestyle, which oscillates between days of hard physical labour and nights of drinking and womanizing. Their occupational hazards include above average rates of HIV prevalence and exposure to mercury poisoning while processing gold.

Based on findings from quantitative surveys and qualitative interviews between 2009 and 2012, this paper focuses on a minority of miners who have managed to save considerable sums of money from gold mining activities. Through targeted investments in urban property, they strategically edge towards retirement, with the aim of securing safer and healthier lives in urban centres for themselves and their families in regional towns where more reliable health and educational services exist. The miners-cum-entrepreneurs with ample investment capital are drawn to Mwanza, Tanzania's second largest city and regional capital. Many, comprising a prosperous elite, transgress cultural norms and shun returning to their rural home areas and extended family in old age. They have resourcefully devised personal investment trajectories with the end goal of maximizing their profit-making businesses and access to urban amenities in retirement.

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

John McIntyre Conference Centre, Edinburgh

11th - 14th October 2016

Secrets to a Long Cycling Life

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University of the West of England¹ and Oxford Brookes University²

Background

Engagement in cycling is low across all ages in GB, but particularly low for those over 50 years. Furthermore, nearly a half of adults aged between 65 and 74 do not meet physical activity guidelines.

Aims

The Cycle BOOM project aims to develop a deeper understanding of cycling amongst the older population and how the built environment and bicycle technologies can support older cycling. It has recruited participants aged over fifty who have experience of, or interest in, cycling in later life in the Bristol, Cardiff, Oxford and Reading city-regions.

Methods and theoretical approach

Biographical interviews were conducted with study participants, eliciting personal narrative accounts of changes and continuities in cycling over their lives. The life course perspective theorises that individuals construct their own life course through the choices and actions they take within the opportunities and constraints of historical times and places and social circumstances they experience. The analysis gives particular attention to the places where participants have lived and how these shaped their cycling histories.

Findings

Resilient cyclists developed capabilities to cycle early on in their lives in supportive contexts which equipped them to cycling in less supportive contexts subsequently. For those returning to cycling, aged 50 or more, a safe environment away from motorised traffic is shown to be important to encourage them. Active ageing is a main motivator for cycling but cycling is also seen to enable access to outdoor environments, participation in social activities and connection to cherished places.

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

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Understanding restorative experience via in-situ EEG measures

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Living in high-density cities is found to be associated with mental illness especially schizophrenia and affective disorders (Marcelis et al., 1998; McGrath et al., 2004). Exposure to nature, even as short as an hour or less, has health benefits such as regulating negative emotions (Bratman et al., 2015), reducing stress (Jiang et al., 2014; Roe et al., 2013; Ulrich et al., 1991; Ward Thompson et al., 2012) and restoring attention (Hartig et al., 2003). While physiological and endocrine evidences were demonstrated, very little was understood about the mechanism by which nature experience restores our mental and emotional wellbeing, which is important for restorative landscape design.

This study was designed to understand the in-situ brain responses during a restorative experience in nature, and how these response may differ from those to a less preferred urban experience. We documented the in-situ brain activities of 32 healthy right-handed participants (mean age=20.6, SD=1.6, 16 males) with them randomly assigned to two treatment: a 20-minute exposure to a nature environment (i.e., a heavily wooded campus garden, 86% viewed green and water while 4% concrete, with an averaged background sound of 62.6 db consisting mainly from birds, insects and occasionally human talking) and another to an urban environment (i.e., a traffic island under an elevated highway, 8% viewed green while 56% viewed concrete and pavement, with an averaged background sound of 76.8 db consisting mainly of traffic) facing a designated view. The two environments differed significantly in their visual and acoustic conditions while were comparable in thermo comfort level. The brain activities of the participants during the exposures, as well as their eye-open and eye-closed baselines, were recorded using a portable electroencephalography (EEG).

Results revealed a higher brain functional correlation (measured by global correlations across electrodes, paired $T=5.59$, $p<.001$) and a louder brain noise (measured by beta power spectrum exponent, paired $T= 2.39$, $p=.033$) during exposure to nature than that to urban. The noise observed obeyed a unique power spectrum law called 1/f noise, which is widely found in perceptual and cognitive neuron activities (He, Zempel, Snyder, & Raichle, 2010; Palva et al., 2013; Yu, Romero, & Lee, 2005) as well as natural fractal phenomena (West & Shlesinger, 1990). The brain noise was found to be associated with a perceived coherence score, as revealed in a Pearson's correlation analysis with Perceived Restorative Scales developed by Hartig and his colleagues (1997) from Kaplan's (1989) Attention Restoration Theory. Based on the observation above, as well as the stochastic resonance hypothesis of neural noise functionality (Sobie et al., 2011), we are hypothesizing that human beings find many nature experience restorative because human sensory perception and cognition are better adapted to process natural patterns.

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Historic greenspace exposure and cognitive ageing in Edinburgh, Scotland: A prospective longitudinal study

Mark Cherrie, Niamh Shortt, Jamie Pearce & Ian Deary

University of Edinburgh

Background

Greenspace exposure has been associated with benefits to general and mental health, although little research has been conducted on the relationship between long term exposure and cognitive ageing. Previous research has shown that greenness surrounding a child's home and school, were related to improvements in memory and a reduction in inattentiveness, over a 12 month period. We hypothesised that higher greenspace exposure during birth, adolescence, adulthood and older age would associate with higher cognitive function and reduced cognitive decline throughout life.

Aims

We aimed to examine the relative effect of individual and cumulative time periods of greenspace exposure on cognitive function and decline.

Methods

Lifetime residential information was collected for participants of the 1936 Lothian Birth Cohort. Exposure to greenspace at point of residence was estimated using 400m and 800m buffers around public parks data from 1914, 1949, 1969 and 2009.

The primary outcome was cognitive function as defined by the score from the Moray House Test at age 11, 70, 76. The secondary outcomes were older age memory and cognitive speed, as defined by the Wechsler Adult Intelligence Scale-III and three information processing tests respectively, at age 70, 73 and 76.

Multiple linear regression analyses were used to explore associations between each greenspace exposure and the outcomes/standardised difference between outcome at two time points, in nested models with adjustment for: (i) sex; (ii) occupational social class (OSC) of father, childhood household conditions and childhood/adolescent smoking status; (iii) OSC prior to retirement, adulthood smoking status, physical activity, highest educational attainment and neighbourhood deprivation.

Findings

Awaiting results.

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

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Co-designing for active, healthy ageing: the synergies of social and built environment

Evangelia Chrysikou¹, Dimitris Milakis² & Chariklia Tziraki³

University College London¹, TU Delft², MELABEV-Community Elders Club and Hebrew University of Jerusalem³

Aims

Despite the fact that WHO stressed the role of the built environment as key determinant for an autonomous life in wellbeing, architecture and health have been disconnected in architectural and medical education and thus there has been very limited connection in the practice of these rather synergistic professions. This paper aimed to provide a targeted overview of the theory for the need to educate and create a dialogue between designers, healthcare professionals and entrepreneurs of retirement and chronic facility sector.

Methodology

The paper grouped together the existing architectural thinking on the social mechanisms of the built environment both from a generalist's perspective that could be applicable to all building typologies and from a more specialised one, referring to populations across the lifespan. The first comprised the social logic of space, i.e., space syntax and the second category focused on theories of social inclusion such as normalization theory and in particular its concept of domesticity, architectural guidelines for dementia as included in national guidance such as the British Health Building Notes, universal design and accessibility theories. Then these architectural theories were juxtaposed to the cognitive and physical evolution of human needs and disabilities throughout the lifespan, and theories for maintaining functionality.

Results

Based on the above theoretical approaches, we cherry-picked the elements each theory could contribute to a fit for purpose design that would be in accordance to the recent demographical shift. We presented paradigmatic areas where research and practice met to support functionality both for aging into physiological limitations and aging with disabilities.

Conclusions

A more inclusive architecture, in line with perception and physiological needs of people throughout their lifespan could create domestic, healthcare and public environments that work in synergies with medical and technological interventions through a mechanism of enabling aging with a holistic societal approach. These solutions, such as a more integrated and accessible approach of uses in building developments as opposed to the common practice of zoning that requires longer travel distance in order to cover basic needs or the rethinking of accessibility of the home environment through design means, could be low-cost or even no-adding-cost compared to conventional architecture but would require a shift in design methodologies of all scales to more evidence-based and inclusive perspectives.

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In the mood for a walk in the park: Assessing the quality of outdoor walking amongst the over 65s

Richard Coyne¹, Chris Neale², Jenny Roe³, Peter Aspinall⁴, Sara Tilley¹, Steve Cinderby², Panos Mavros⁵, Neil Thin¹ and Catharine Ward Thompson¹
University of Edinburgh¹, University of York², University of Virginia³, Heriot-Watt University⁴ and Singapore ETH-Centre⁵

In this paper we present the finding of a comprehensive study involving 93 people over the age of 65 walking through different urban environments. Each individual was assessed on a range of self-report psychological scales pre and post a 20 minute walk through a busy urban street, a green parkland, and a quiet residential street. Each walker transitioned through two such spaces and we recorded their neurological responses in real time using a portable head-mounted EEG (electroencephalography) device.

Early findings, across a range of self-report and EEG data analyses, suggest that, irrespective of setting, walking in urban green and urban busy settings is conducive to relaxation, but that there are potential changes in brain activity when shifting into a new setting and on coming to the end of a walk. We discuss the findings in relation to restorative environment theory that posits walking in natural settings offers attention restoration and stress relief.

Using Emotiv emotional parameters (“excitement,” “engagement,” “frustration” and “meditation”) as output from the EEG headset, we show that participants exhibit high levels on engagement at the start of any walk. Furthermore, there are increased levels of excitement in the walk through the busy urban space which is perhaps moderated by the effects of a preceding walk through the green space.

There was significant variation between the EEG responses of participants, which led us to inquire into personal differences and self-reported mood states amongst participants. We present also the full results of our analyses across a variety of measures (including “raw” EEG parameters) and assess the significance of our findings.

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"Oh Tae Go!" in Fife (Promoting older people's wellbeing by combining walking and balance exercises)

Fiona Dale & Vivienne McNiven

Fife Council

This initiative is part of Fife's physical activity strategy which recognises older adults as a priority.

The aim is to reduce health inequalities by developing a walking for all culture, including the frail, which will help promote independence and reduce social isolation.

Fife's volunteer-led health walking programme, Bums off Seats, has been long established and targets all ages and abilities. The recognition in recent times that there is an increased risk of falling with participation in walking has led to the integration of walking and falls prevention work in Fife – the "Oh Tae Go!" initiative.

OTAGO Strength and balance exercises are now incorporated into the volunteer led walks using the "Walk Your Way to Better Strength and Balance" leaflet produced by Paths for All. This leaflet was also used as part of a successful pilot within day care settings and this is now being rolled out across Fife. Some of the feedback gathered during these processes indicated the need to produce additional resources to extend the programme to 'hard to reach' groups. In partnership with Paths for All, a dementia friendly DVD has now been produced as a tool to be used in a range of settings, in particular to engage the community in promoting the strength and balance messages.

A range of additional resources and promotional materials have been produced and a series of community roadshows are planned. The success to date has resulted in an additional £10,000 being awarded to continue rolling out the initiative.

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Effect of changing life cycles on mobility and active ageing

Anita Eichhorn & Eva Aigner-Breuss

KFV (Austrian Road Safety Board)

Background

Experience shows that older people are difficult to reach and motivate for awareness-raising measures regarding safe mobility. Due to changing life cycles, a promising approach could be a joint consideration of mobility and health.

The Austrian Research project “Pimp your Skills” (funded by the Austrian Road Safety Fund) aims at identifying (global) trends regarding the future image of elderly and resulting consequences on mobility.

Aims

In detail the project aims at:

- analysing the influence of changing life cycles on mobility
- identifying motives and barriers regarding cycling and walking
- developing applicable types of mobility in order to arrive at tailored measures

Theoretical approach / methods

In recent decades individualisation at different levels (values, lifestyle, transport, technology) has increased and homogeneous groups have become rare. Hence, in the area of mobility research working with typologies has become more important.

This project considered socio-demographic factors, psychographic factors and mobility behaviour to be relevant for the development of an appropriate typology. Already existing typologies were screened and analysed. Based on these findings, all extracted common factors were rated and combined depending on their relevance. Subsequently, a new typology of mobility was generated and tested in a representative survey (n=400) within the age group 50+ in Austria.

Findings

Four different types of mobility were developed and will be presented at the conference:

1. Die “Experimentierfreudigen” (the “adventurous”)
2. Die “Verantwortungsbewussten” (the “responsibles”)
3. Die “Abwartenden” (the “wait-and-sees”)
4. Die “Gemütlichen” (the “comfortables”)

The survey results confirmed that the theoretically constructed types are present in the population.

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Social eating and older adults: an exploration of the barriers and facilitators

Jenny Fisher¹, Laura Brown² & Zinnia Mitchell-Smith¹

Manchester Metropolitan University¹ and University of Manchester²

Background

Social eating, or commensality, is defined as eating with other people and sharing meals, and can have a positive impact on a person's health, including improved nutrition, a reduction in depression and loneliness, and increased well-being. Eating alone is a known risk factor for poor nutrition, and growing old can lead to less opportunities for eating with others. Few older adults engage in social eating opportunities and there is limited academic research on the barriers and facilitators for older adults to engage in social eating.

Aims

To explore the barriers and facilitators for social eating for older people in urban places.

Theoretical approach / methods

We are drawing on a range of qualitative methods to create rich findings about older people's experiences and views on social eating. We are purposefully recruiting forty older adults who currently socially eat and those who don't, and ten staff and volunteers who work with older adults. Our research is focused in low socioeconomic status urban areas. Topic guides follow a similar structure for each group and cover reasons for socially eating and not eating with others, experiences of social eating, and barriers to and opportunities for social eating. Discussions also include use of vignettes and adverts for social-eating groups.

Findings

Focus group transcripts are analysed thematically, to identify key barriers and facilitators of social eating for older adults living in urban areas. Implications for further research and practice are considered.

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Accessible environments, connected lives: Effect of access to local services and age discrimination on loneliness among older people in Ireland

Sarah Gibney¹, Eithne Sexton² & Sinead Shannon¹

Department of Health (Ireland)¹ and Trinity College Dublin²

Background

The objective of this study is to explore the effect of local area accessibility and age discrimination on loneliness among older people in Ireland.

Methods

Data was obtained from the Age Friendly City and Counties survey, a population-representative cross-sectional survey of community-dwelling adults aged 55+ in ten counties in Ireland (n=4,927). We used a mixed-effects logit model (to account for county-level clusters) to estimate the effect of 1) accessibility of the local area, 2) age discrimination, on the odds of experiencing loneliness, measured by the UCLA Loneliness Scale. Accessibility included access to local social services, public transport and walkability of the local area. Age discrimination included experience of negative attitudes and behaviours and perceived negative attitudes toward older people participating in social activities. Age, gender, education, material deprivation, rural/urban location and several known predictors of loneliness (living alone, marital status, deprivation, health status and social participation) were adjusted for.

Findings

Participants with difficulty accessing public transport (OR=2.01, p<.001) and those who had experienced age discrimination, were significantly more likely to be lonely (OR=3.70, p<.001). Meeting socially with friends (OR=0.37, p<.001), but not community engagement, was associated with lower odds of loneliness. Material deprivation, not being married, poor health, and living alone were associated with higher odds of loneliness.

Conclusions

It is recommended that policy makers consider ways of addressing these specific structural (transport) and social (discrimination) issues at local level, to promote positive social interactions and to support the maintenance of personal ties as people age.

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“When you live alone, life is always going to be out of the house”

*Rose Gilroy¹, Mark Bevan², Karen Croucher², Katia Attuyer³ & David Swallow²
Newcastle University¹, University of York² and University College London³*

Background

Against a background of demographic change and public finance constraint, discussions of health and positive lifestyle choices have, as Higgs et al (2009) comment, come to “overwhelm our understanding of later life” (p. 690) such that good health is increasingly a “required goal” for individuals. However, it is increasingly recognised that the quality and quantity of individuals’ social relationships are important to mental and physical health (Holt-Lunstadt and Smith, 2010). Indeed, the World Health Organisation’s Age Friendly Cities framework emphasises social connectivity, and the extent to which social interactions may act as either facilitators or barriers to mobility.

Aims

This paper explores the significance of getting out and about for people aged 55(+) who have started to live alone and their strategies for being mobile.

Theoretical approach / methods

Our study was based on longitudinal qualitative interviews undertaken between 2014 and 2016 with a group of 96 people aged 55 or over whose individual participation also spanned the 2 year time frame. The study explored their mobility and wellbeing as they moved through a range of critical life transitions, including people who had a recent experience of starting to live alone. Participants undertook a self-administered questionnaire at the beginning and end of the research, a first face to face interview, four telephone follow ups and a final face to face interview.

Findings / conclusions

The paper draws out the importance of place as physical and social arena and how this is navigated by those living alone, and discusses their practical strategies for keeping mobile and remaining socially connected. As physical arena, community/cultural hubs linked by good transport networks were significant. Sunday was marked for many as a day of no social contact because of the poor or absent transport offer. Those who were able to draw on long roots in a place had enviable depths of social connection while recent movers had to consciously work to build networks often through volunteering.

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Older people's mobility and interactions with neighbours

Janet Grime

Tynedale U3A (University of the Third Age)

A qualitative study of older people's experience of receiving help from neighbours found mobility was an important factor in building and maintaining relationships with neighbours.

Twenty three people aged between 60 and 100 were asked about their neighbourhood, interactions with neighbours and getting help from them. Nine were recruited from Tynedale U3A (University of the Third Age) and 15 from people who use RVS (Royal Voluntary Service) services in Northumberland.

Twelve RVS respondents had lived in the same area all their life (locals). Being older than U3A respondents, locals had experienced more loss of neighbours through neighbours dying or moving away. All but one of the U3A respondents were incomers, none had mobility problems and most had access to private transport. They were able to connect with social networks inside and outside their neighbourhood.

Nine RVS respondents had mobility problems as a result of a long term medical condition. Of these, four had been car drivers until their condition worsened. Not being able to get out and about in their neighbourhood (or further afield) lessened the chance for opportunistic encounters with people living locally, making it difficult to get to know new neighbours or maintain connections with existing ones. Loss of communal places in the locality could make matters worse.

Five respondents had been referred to a good neighbour scheme (GNS). Respondents gave different accounts of the effectiveness of the scheme for increasing opportunities for sociability.

GNS should enable older people to connect with local social networks.

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Design for Dementia

Bill Halsall¹, Robert MacDonald² & David Kelly³

Halsall Lloyd Partnership¹, Liverpool John Moores University² and

BRE Innovation Park Networks³

'Design for Dementia' is a new publication which provides guidance on the design of the Public Realm and the Interior Domain for people living with dementia.

Background to 'Design for Dementia'

In the UK, 70-80% of people living with dementia continue to live in their own homes rather than in any specialised form of housing, living in the same neighbourhoods using the same local facilities and centres.

'Design for Dementia', co-authored by Bill Halsall (Halsall Lloyd Partnership) and Robert MacDonald (Liverpool John Moores University) aims to assist designers and others working in the built environment to tackle this design challenge.

Aims

Bill and Rob are now collaborating with the Building Research Establishment to develop an experimental design demonstrator the 'Design for Dementia Home' to be constructed at the BRE Innovation Park at Watford. In parallel a 'Dementia Friendly' refurbishment will be established at BRE's Innovation Park in Ravenscraig.

Our aim is to demonstrate and disseminate best practice so that the needs of people living with dementia can be incorporated into the design of the built environment.

Accommodating the needs and aspirations of those living with Dementia through design will increase their capacity to live independent lives and reduce demand on institutional care.

Methods and findings

Our research process is participatory, working closely with dementia groups, those living with dementia and their carers, and we are promoting innovative co-design approaches as a research tool. Participatory Research Projects include:-

The Dementia Friendly Neighbourhood

The design of the public realm and private domain

How Dementia Friendly is our City?'

Understanding the response of people with dementia to a city centre environment

Connecting Minds through Sandplay

A 'hands-on' game using a Jungian sandtray

The Design for Dementia Bungalow and Garden

Explores an ideal model design with all the features to 'live well with dementia''

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Intervention based co-design - adjusting public spaces in partnership with Councils of Seniors in Poland

Krzysztof Herman

Warsaw University of Life Sciences

Poland is a rapidly ageing country with a low birth rate and one of the most unfavourable population age structures in the European Union. It is predicted that the number of citizens in the 65+ age group will account for more than 23% of the population in 2035 and will reach over 32% by 2060.

In recent years local governments have been noticing the importance of the inclusion and the participation of older adults in decision-making processes. Hence the introduction of Councils of Seniors in several Polish townships since 2011.

The proposed paper links the findings from field research and extended cooperation with two Councils of Seniors (part of a large scale programme “Zoom on Councils of Seniors” - <http://zoomnaradyseniorow.pl/>) with theories and practice of intervention based, low-budget design for public spaces.

The results of the work were practical solutions that improve the usability, ergonomics, potentials and restrictions (in mobility, function) of the chosen spaces/elements: entrance areas, meeting spaces, street furniture etc. These small scale design proposals aimed to maximise the participation and impact of older adults in the process and to create solutions that can be immediately implemented.

The study (interviews, observational studies, design workshops) helped to draw some conclusions on potential participatory models of universal design in Poland as well as the importance of tangible (surfaces, entrances, landscaping) and intangible (genius loci, memory, identity and history of the place) aspects of public space as seen by the seniors.

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Travelling with Dementia

Andy Hyde

Upstream

Background

Getting out and about and being involved in community life is an important part of living well and mobility services play a key role in this. However, the challenges faced by people affected by dementia mean that they are likely to find travel experiences daunting. Dementia affects so much more than memory and travel can be noisy, busy and disorienting. If the growing number of people affected by dementia are to maintain their independence, transport and related services need to respond and develop in ways that are sensitive to the real-life experience of travelling with dementia. Upstream, a project supported by the Life Changes Trust and the ESP Group, is developing a framework for bringing people affected by dementia together with those providing mobility services. (<http://www.upstream.scot>).

Aims

We're creating a service which shares the experiences, insights and ideas of people affected by dementia and works with them to develop and deliver new solutions and training experiences for leading mobility service providers in Scotland.

Method

Working in three different geographical areas across Scotland, we are working with existing dementia support networks, collecting stories that illustrate how local mobility behaviours are affected by dementia and using them to develop training and ideas for how transport services might respond to this growing challenge.

Findings

We'll share our approach to working with people affected by dementia, emerging insights around aids and barriers to mobility and ideas for new approaches to training for transport service providers.

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The Aging Population and Passengers of Reduced Mobility

Karen Jackson

CCD Design and Ergonomics Ltd

We are living in a generation that lives longer and has greater expectations of their twilight years than ever before. That is not to say we have skipped the health issues of our previous generations, but rather we have expectations that transport and service provision will meet the needs of a growing and changing population.

Within the transport realm there has been a long held assumption of an 'older age group' bubble' imminent within the population. Research carried out on behalf of HS2 considered trends across both Europe and the USA and suggested that, rather than a 'bubble' there is in fact a growth in population across the board with in-fill from immigration and a baby boom that has replicated the existing population profile on a larger scale. Put simply we are looking at an increase in passengers across the board.

What should be considered is that we have a more active and mobile elderly and PRM (passengers of reduced mobility) population than ever before. Previous generations were encouraged to move to employment, resulting in a dispersal of family and friendship groups across the national landscape. This in turn led to more domestic travel. Furthermore, social media has fuelled the provision of information on services and facilities available enabling far more accessibility than ever before.

HS2 commissioned this desktop research project which sought to engage with industry professionals and experts from service and transport industries to explore a new passenger profile, considering mobility and aging provision across future services.

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Single Seniors' Mobility, Health and Safety in depopulated areas in Japan

Ayako Kita

Setsunan University, Japan

Single living seniors are increasing in Japan, especially in depopulated rural areas. This research was conducted in Susami Village in Wakayama Prefecture, where the rate of ageing is the sixth highest of the prefectures in Japan.

This research reveals the peculiarity of single seniors mobility, concerning their health and safety in their daily livings, with a focus on comparing living by oneself (single =S) or living with spouses or other family members (not single = NS).

Questionnaires were distributed in January, 2013. Survey respondents were people aged over 65, living in Susami which has a population of 2021 over 65. A short interview was conducted upon displaying the questionnaire sheet to respondents. 1799 questionnaires in total were collected as valid.

Respondents included 709 male and 1090 female. The proportion of respondents; aged 65-75, 18% were S, 82% were NS, and aged 75-85, 27% were S, 73% were NS. 38% of S only walk whenever they want to go somewhere. 2Km is the farthest walking distance for them. If destinations are outside their walking ability, they just give up. Further, although 64% of S are fearful of slipping, only 49% of NS are fearful; 53%of S take a walk for fun at least twice a week, whereas 39% of NS. Regarding safety, most S are only worried about and prepared for emergencies other than natural disasters. However, one third of the village areas are predicted to be uninhabited in the next 20 years.

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What makes a happy place? Assessing place attachment among older adults

Tiina Laatikainen

Aalto University, Finland

Place attachment refers to an emotional bond to a place that is formed between a person and the physical surroundings. People are attached to places and can find happiness encountering or living at a particular place. Thus, provision of spaces where people can lead a satisfying life should be an ongoing target of planners the world over. This is noteworthy especially from the perspective of the rapidly growing population segment of older adults.

In this study place attachment of older adults was studied from a spatial perspective, acknowledging that other factors such as family and other life situations also play a substantial role in individual and collective happiness. The study aimed at characterising the physical environment features of the places older adults form bonds to.

Place-based study approaches, such as Public Participation GIS, has proven to be effective in studies researching the mechanisms underlying relationships between the physical characteristics and subjective perceptions of different environments. Thus, in this study older adults marked places on a map of their everyday environment where they feel happy.

According to the results, diverse physical characteristics constitute happy places of older adults, though green space was found to be a highly dominant characteristic together with low apartment density. The physical characteristics of happy places differed also according to various socio-demographic background variables of the respondents. PPGIS appeared as a valuable tool to measure place attachment and a potentially convenient tool for planning purposes to assess places to which people are particularly attached to and can find happiness.

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A theoretical framework to assess the unmet travel needs in later life

Carlo Luiu, Miles Tight & Michael Burrow

University of Birmingham

This paper investigates a theoretical framework for improving the evaluation of unmet travel needs among the older population. Unmet travel needs can be defined as mobility needs that remain unfulfilled due to inability of accomplishing needed or wished trips and activities.

Gerontological research is putting increasing focus on the role that mobility plays in later life. Analysis of studies investigating the relationship between ageing and mobility reveals that these are generally characterised by relying only on realised mobility. However, very little has been investigated so far in terms of unrealised mobility, and often with different approaches and results.

The present paper is aimed at describing and analysing the topic, as well as reducing the gaps on studies assessing unmet travel needs. Through an intensive review of existing approaches in the literature, this study develops a theoretical framework designed to understand how to investigate which mobility needs remain unfulfilled.

We first assess the concept of mobility needs in later life. This concept is then used to evaluate the best method to investigate factors and barriers leading to unmet travel needs.

Six main domains were identified as being necessary to consider: experience and attitude towards mobility; built environment; type and importance of activities, well-being and quality of life; health conditions and socio-demographic background characteristics.

This concludes that relying only on transport attitude is not enough and a more inclusive approach is needed to better define the full dimension of mobility needs among the older population.

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

John McIntyre Conference Centre, Edinburgh

11th - 14th October 2016

The NANA Project (new architecture for the new aged)

Guy Luscombe

Architects Johannsen + Associates

Despite the oft stated desire to find new ways to address the need to accommodate the increasing number of aged people and create age friendly communities, current solutions mostly repeat standard 'retirement village' and 'nursing home' models. While this has worked in the past and provides a solution for many, the projected numbers of older people will mean new and innovative ways to house them will be necessary. Further, this cohort of 'new aged' is healthier, wealthier, more educated and more self-directed than previous generations and will likely demand other approaches and more choice. So what other solutions are there?

This presentation will show the results of a Byera Hadley Travelling Scholarship undertaken in 2014 which visited recently completed innovative developments for the aged in Europe. The goal was to see firstly if these developments had been successful in what they set out to achieve and whether the models and their features could be applied in a wider context. A variety of places for the aged were visited including self-funded co-housing, inter-generational communities and infrastructure based developments. Using a 'checklist' to firstly analyse and then compare them, common design principles and features were developed that could easily be incorporated into all developments for the aged to make better, more 'friendly' places for them.

What will be presented will likely challenge pre-conceived ideas about environments for older people and at the very least provide more options for them.

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

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An urban environment supporting mobility and enhancing daily life for an aging society: a design considering users' requirements and space performances

Lucia Martincigh, Marina Di Guida & Giovanni Perrucci

Roma Tre University

Our cities are more and more inhabited by older adults but are not designed for their requirements. Mobility conditions endanger their possibility of performing usual everyday activities by walking in the district where they live; accessibility and safety are scarce; air, acoustic and visual pollution may decrease comfort above all for the most vulnerable people. Sustainability is now a goal of European policy, therefore it is a must to find a way to re-design residential districts in a way to make them more agreeable to all classes of dwellers.

In the Department of Architecture, some European research works on mobility, and in particular on older people's mobility, were carried out. They studied people's requirements, surveyed space performances and analysed their compatibility using specific methodologies¹. In particular one of them SIZE², defined problems and solutions senior citizens considered important and appropriate and gave indications for creating a walking environment agreeable and apt to keep them mobile.

Other research works studied an Italian prescriptive tool³ aimed at managing urban mobility at local level and at improving liveability of urban spaces located in areas mainly residential: the "Environmental Island". This paper propose to describe the application of this tool, of some methods and measures devised in the EC research, and some consequent results.

Researchers and students of the department worked together with some citizens' associations in order to re-design, in a sustainable way, streets, leading to main facilities, and spaces of a district in Rome, characterized by an elderly population: Testaccio.

1. EC project PROMPT- New means to PROMote pedestrian Traffic in cities; EC ASI- Assess implementations in the frame of the Cities of Tomorrow
2. EC project SIZE-Life Quality of Senior Citizens in relation to Mobility Conditions
3. Ministero dei Lavori Pubblici, "Direttive per la redazione, adozione ed attuazione dei piani urbani per il traffico" (Department of Public Works, "Directives for drawing, adopting and implementing urban traffic plans") - (Art.36 del D.L.30 aprile 1992, n.285, Nuovo Codice della Strada - Supplemento ordinario alla G.U. n. 146, 24 Giugno 1995)

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

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Small Scale Improvements to Street Accessibility: understanding co-design and consequent impacts

Bryan Matthews¹ & Kasia Speakman²

University of Leeds¹ and Leeds City Council²

Background

Limited accessibility of the street environment has implications for the choice of transport and destinations available to older people with limited mobility. Whilst pedestrian accessibility is ensured at the planning stage for new highway developments, and accessible features such as dropped kerbs would normally be included in street refurbishment works, the risk is that many areas of the existing public highway will otherwise remain inaccessible for years to come.

Aims

This paper details research into one practical response to this problem, adopted by Leeds City Council, aimed at creating accessible routes linking places where people live with local facilities. The local authority works directly with users, currently encountering problems on their regular journeys or unable to travel independently because of the barriers in the street environment, and other stakeholders, to formulate a targeted programme of works (with a dedicated annual budget) to alleviate the identified access problems.

Methods

We conducted a programme of in-depth face to face qualitative interviews with Leeds residents, designed to gauge the implications of removing barriers on the highway in specific locations identified by stakeholders for the type, mode and destinations of journeys undertaken. We also draw on a parallel programme of qualitative interviews with older people in Leeds, which explore links between mobility and wellbeing in more depth.

Findings

Initial feedback indicates that there may be wider benefits for the wellbeing and independence of disabled people, better participation and social activities and community life, reduced cost of travel and reduced reliance on care services.

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

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Mapping brain imaging as a measure of emotional wellbeing in older people walking in different urban spaces

Chris Neale & Steve Cinderby

University of York

Objectives

Novel mobile EEG technology is allowing measurements of the interaction between different urban environments and brain activity to be assessed in situ for the first time. This approach allows the quantification of real time changes in participant's neural activity linked connected to their wellbeing to be identified in relation to changing urban forms. This paper will report on the wellbeing impacts of urban green space versus the streetscape for older Edinburgh residents.

Methods

Healthy participants aged over 65 walked a continuous route that comprised of green space and a busy urban street in Edinburgh wearing an EEG headset. The data was collected from transect walks using a mobile EEG headset connected to a GPS for location information to record changes in brain activity correlated with different emotional states. The data has been mapped to identify associations with transitions between green space and a built busy urban environment.

Main findings

Participants showed increased levels of 'excitement' in the busy spaces and increased levels of 'engagement' in the green spaces, as measured by proprietary software associated with the EEG headset. The mapping methods used indicate examples of how we can visualise this data and explore the effect of features of the environments on brain activity'. We will discuss how this approach could be utilised in other settings and the spatial implications for urban design to promote wellbeing – particularly for our increasing elderly population.

Conclusions

The results here show changing neural signals associated with the urban environment, but also shown novel ways of presenting this data to understand the role of environmental features on brain activity.

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

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Understanding the role of social networks in older adults' sedentary behaviour

Victoria Palmer^{1&2}, Claire Fitzsimons², Sally Wyke¹, Nanette Mutrie² & Cindy Gray¹

University of Glasgow¹ and University of Edinburgh² on behalf of the Seniors USP consortium

Background

Higher levels of sedentary behaviour (SB) puts older adults, one of the most sedentary age-groups, at increased health risk. In addition, older adults often have changing social networks which can lead to decreased social engagement and social isolation. However, very little is known about the role social networks and social activities play in older adults' SB.

Aims

This study explores the role of social networks in understanding SB in older Scottish adults.

Method

As part of larger interdisciplinary study examining SB in older adults (Seniors USP), 42 semi-structured qualitative interviews were conducted with men and women of varying age (mid 60s/late 70s/mid 80s), social class and objectively-measured SB (high/low). The interviews were analysed using a thematic framework.

Findings

Engagement with social networks played a role in breaking/reducing older adults' SB. Those with higher SB often reported participating in fewer social activities: 'I lived here 14 years and I can honestly say, I've no friends, I've nowhere to go [...] So I've nothing to do so I just sit about'.

The social activities that older adults engaged with were often sedentary: 'I'd be meeting friends; but then again, I'd be sitting quite a bit', however the routines involved in preparing for and getting to social activities presented opportunities to break/reduce SB.

These findings underline the importance of expanding the focus of SB interventions for older adults beyond the individual to consider the wider social context.

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

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Quality of public space for older adults in Latin American cities

Pablo Paramo

Universidad Pedagógica Nacional, Colombia

Many Latin-American cities have followed the American urban planning model for designing public spaces. The mobility rather than social encounters is being considered as the main purpose for designing these spaces.

The presentation shows the results of a descriptive study that explores how people from seven Latin American countries, Mexico, Colombia, Venezuela, Peru, Brazil, Chile and Argentina assessed several conditions that characterize habitability of their urban public space.

A total of 1823 people, males and females, of various groups of age, including elderly people assessed, through a questionnaire, the importance and satisfaction with different characteristics and conditions of public spaces, among others: accessibility, connectivity, contact with nature, etc.

A multidimensional scaling analysis established that people evaluate the conditions explored according to eight dimensions: infrastructure, commerce, culture, recreation, ideological manifestations, air quality, social norms, and people in social vulnerability.

The overall results show differences between people from different cities and ages, however, they agreed on a lot of conditions which, although considered important, are not assessed as satisfactory. Old people, different to younger people are not satisfied with conditions associated to accessibility, aesthetic, public toilets, the following of social norms, among others. Elderly people demand more accessibility, safety and recreational spaces.

Results are interpreted in terms of the values they share and on their past experiences in public spaces and evidence the way elderly people are been marginalized from urban public spaces.

The presentation will discuss the importance of public space for elderly people, the quality of urban life and for the formulation of public policy on urban planning and management.

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A study of diagnosis and improvement for aging-friendly environment: for who need four-wheeled walker with seat

E-rang Park & Jong-sang Sung

Seoul National University

Background

As the Korean society has been becoming an aging society, the mobility issue surfaces as a critical factor in seniors' quality of life. Due to serious injuries caused by sarcopenia, seniors have restricted activities as they stay indoors or in the hospital. Four-wheeled walker with seat (FWWS), dubbed "Silver Car", helps to improve movement ability, with increasing users in Korea. This study explores to what extent the elderly become healthier through outdoor activities and what is necessary for their health improvement.

Aims

Despite the FWWS users are rapidly increased, there are insufficient researches about how their activity ranges are expanded. This study investigates seniors' behavior by tracing their trails when they use FWWS. And it was focused on the walking course and the rest area.

Methods

Dobong-gu was selected because it has high senior population, and is surrounded by multiple appropriate neighborhood environments for outdoor activities. In there, this study did followed methods: (1) Investigate environmental characteristics of Dobong 1 dong (2) Interview seniors who uses FWWS to travel (3) Mapping rest areas and comparing seniors' walking course before and when using FWWS (4) Characteristics of physical environment

Conclusions

The result shows that FWWS helped seniors who have difficulty in walking to improve their daily life quality by enlarging their range of movement and increasing chances to meet people. Also, important elements of physical environment were determined which allow users use FWWS like the following: road's slop, current paving condition, free space, safety, shade, accessibility, and familiarity.

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Mobility Inside Out / Outside In: Experiencing Vision Impairment in Later Life

Sheila Peace, Jeanne Katz, Caroline Holland & Rebecca Jones

The Open University

Background

For many older people vision impairment will have evolved gradually in a place and environment that is well-known. Sight loss is more likely in advanced old age, and with older women and people from minority ethnic groups particularly affected. The diverse effects of varied conditions (e.g. age-related macular degeneration, glaucoma) impact on lifestyle. Loss of vision is a neglected issue when considering mobility and often just one aspect of co-morbidity.

Aims

To consider the views and experiences of older people with vision impairment concerning mobility both within their homes and the wider community. To question how inclusive an age-friendly community can become.

Theoretical approaches

Theoretical approaches from environmental gerontology concerning person-environment fit alongside issues of inclusive design and the social model of health will be considered.

Methods

Examination of qualitative research (funded - Thomas Pocklington Trust) concerning the 'Needs and Aspirations of Vision Impaired Older People' (2016). The study includes a purposive sample of 50 older people including members of Black and Asian Minority Ethnic groups living in mainstream housing in diverse urban and rural communities across England.

Conclusions

Maintaining mobility alongside vision impairment can result in learning new skills and the benefits of technology, accepting interdependency, recognising how spatial orientation is supported through familiarity and control, and acknowledging 'responsible risk-taking'. The environment may not be age-friendly.

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Moving in later life - Qualitative Research within a Population-Based Cohort Study

Fiona Scheibl¹, Jane Fleming¹, Robert Evans¹, Jackie Buck², Stephen Barclay¹, Morag Farquhar¹ & Carol Brayne¹

University of Cambridge¹ and University of East Anglia²

This paper uses qualitative data from the Cambridge City over-75s Cohort (CC75C) longitudinal study of ageing to examine older people's experience of moving in later life and how the decision to move is made. It reports the findings of a thematic analysis of 26 very old people (aged ≥ 95) who moved. It develops an earlier model of moving later in life (Pope and Kang 2010) that distinguishes between moves that are reactive and those that are proactive. The paper makes a series of policy recommendations that could increase the support available to older people (and their families) for home adaptations and with moving before the risk of health crisis associated with frailty and dementia forces 'reactive' moves which tend to be traumatic and distressing for families and their loved ones.

Aim

To better understand how the oldest old make decisions about moving and their experience of moving in later life. To inform the wider debate concerning the degree to which a policy of 'ageing in place' is able to meet the needs of all older people. To address the need for 'more qualitative research to explore the decision making process of older adults who make 'reactive' and 'proactive' moves in later life' (Pope and Kang 2010).

Results

The data indicate that moving in later life for the oldest old in the CC75C sample was most often a reactive response to a health crisis, with far fewer people making proactive moves, a finding that is consistent with previous longitudinal quantitative studies (Pope and Kang 2010). Analysis of how CC75C's very old participants experienced reactive and proactive moves uncovers eight types of experience. Six of these experiences are common to both proactive and reactive moves; two are specific to either proactive or reactive moves. Further analysis of the decision making that underpins these experiences identifies four distinct forms of decision making that are specific to either reactive or proactive moves. The paper concludes with a two part model that summarises the findings and makes a contribution to developing the breadth of Pope and Kang's model.

Pope, N., D, and B. Kang (2010). ""Residential Relocation in Later Life: A Comparison of Proactive and Reactive Moves."" *Journal of Housing for the Elderly* 24(2): 193-207."

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

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A pilot experiment of in-situ bio-sensory affective mapping of college campus

Sebastian Schulz¹, Zheng Chen² & Jue Yu²

Büro StadtVerkehr GmbH¹ and Tongji University, Shanghai²

For Chinese cities, the visual effects of contemporary urban and landscape design play a rather big role in decision-making processes. 3D-modelling, animations and renderings of planning projects are essential, but usually depict an aspired ideal. Facing reality though, there often exists a large gap between expectations and the built environment.

Throughout the years of rapid urbanisation car-oriented planning and spectacular lighthouse projects dominated the urban agenda. The artification of urban and landscape design produced impractical and inconvenient urban landscapes with a loss of walkability, usability and vision. Planning experts increasingly criticise the urban development in China and its lack of human scale design. In the process of smart city approaches of several Chinese cities, the implementation and use of open access data and big data analysis for better understanding of people's needs have gained unprecedented importance in urban planning projects. One part of this analysis revolves around the implementation of emotional mapping into future urban design.

Latest research on the empirical value of emotion mapping have highlighted the opportunities and possible symbiosis of individual perception of urban spaces and urban planning practice. Yet, several evaluations have shown shortcomings of technical devices and methodologies on measuring emotions and in situ environmental perception either indoor or outdoor. One central aspect in this discussion is the one-sidedness of single sensory measurement, in most cases skin conductance, which only depicts negative emotions in form of stress levels.

Research studies revealed that exposure to nature environment would trigger positive affective responses (Bratman, Daily et al. 2015; Bratman, Hamilton et al. 2015) and enhanced cognitive functions (Kaplan 1995; Chen, He et al. 2015; Chen, Zhai et al. 2015; Li and Sullivan 2016), and therefore, frequent access to nature may enhance human mental health (Velarde, Fry et al. 2007; Bowler, Buyung-Ali et al. 2010; Tost, Champagne et al. 2015). On the contrary, city dwellers, with limited access to nature, were more likely to suffer from mental diseases and poorer psychological wellbeing (Florian, Peter et al. 2011). Up to now, findings were mostly confirmatory verifying the effect of nature on human affective responses (Velarde, Fry et al. 2007; Bowler, Buyung-Ali et al. 2010). However, a 2015 study revealed that visual aesthetics may be another important, if not more significant, environmental factor on human health additional to nature (Seresinhe, Preis et al. 2015).

Therefore, this paper is designed to identify potential stressors as well as negative/positive environmental stimulators, using wearable physiological sensors and a GPS device. An eight-channelled Procomp Infiniti device was used in this study, including electrocardiogram, electroencephalogram, skin conductance, skin temperature, electromyography of facial expression muscles and respiration, with a maximal sample rate at 1024 per second. Participants were asked to take a 10-minute walk on a designated route three times. Physiological measures were first filtered and then combined with GPS locations with time tags. Affective maps were based on smoothed and averaged physiological measures.

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The Integration of Crowdsourcing and Participatory Mapping as a Means to Identify the Perceptions and Mobility of Older Adults in the Built Environment

Christopher J Seeger

Iowa State University

One of the first steps when working to improve the mobility of older adults within the built environment is to develop data sets that illustrate or map the current infrastructure conditions, potential destinations, and the users' perceptions and routes currently taken.

Unfortunately, collecting this information is beyond the technical ability of many rural communities or walking clubs. To assist with this task, the Iowans Walking Assessment Logistics Kit (I-WALK) program was developed.

The I-WALK program aims to provide community coalitions with relevant local information to help them continuously update, implement, and evaluate their community walking plans and infrastructure maps while fostering public involvement and buy in. I-WALK encourages user participation through crowdsourcing workshops and the implementation of innovative smartphone and web-mapping technologies to accurately map user walking routes, community destinations and locations of any perceived barriers for the purpose of providing communities with the best up-to-date information and data analysis.

The I-WALK program has been successfully conducted as youth or older adult programs in more than 60 communities and has been used as a catalyst for environmental change. Participants in this session will learn how user groups can become involved at an early stage of the planning and design process by implementing geospatial technology and crowdsourcing techniques that encourage participants to interact and experience the walkability of areas beyond their own neighborhood.

This engagement is particularly impactful when local health organizations, store owners, media and decision makers participate in the workshop with the concerned residents. A discussion of techniques to encourage older people to participate as well as early impacts the data has had on community planning will be included.

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Enabling environments, healthy bodies: Effect of perceived accessibility and safety of the local environment on physical activity in the over 55s in Ireland

Eithne Sexton, Sarah Gibney & Sinead Shannon

Trinity College Dublin and Department of Health (Ireland)

Aims

To examine the effect of perceptions of local area safety, and of the accessibility of recreational spaces, on physical activity.

Methods

Data was obtained from the Age Friendly City and Counties survey, a population-representative cross-sectional survey of community-dwelling adults aged 55+ in ten counties in Ireland (n=4,765). A random-effects logit model was used to estimate the effect of 1) perceptions of the accessibility and availability of recreational green areas, 2) experience of crime, and 3) perceptions of safety while out and about in the local area, on the odds of meeting national physical activity guidelines (≥ 150 minutes per week). Age, sex, education, limiting illness and location (urban/rural) were adjusted for.

Findings

Difficulty accessing a recreational green space (OR=0.74, $p < 0.01$), or the unavailability of such a space (OR=0.80, $p = 0.04$), was associated with reduced odds of meeting physical activity guidelines. Respondents who had an experience that left them concerned about their safety (OR=0.78, $p < 0.01$), who felt unsafe out and about during the day (OR=0.61, $p = 0.04$) or at night (OR=0.82, $p = 0.02$) were also less likely to meet physical activity guidelines.

Conclusions

Improvements to the local environment may be useful for promoting increased physical activity, in addition to individual-level behaviour change interventions.

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Ageing Well - Adding years to life and adding life to years

Liz Simpson & Emma Dempsey

NHS Lothian

Background

By 2033 it is estimated that 41.03% of Lothian's population will be 65 and over. Growing evidence shows the importance of physical activity for older people, including immediate and long term physiological, psychological and social benefits, and its importance in maintaining mobility and independence for certain conditions associated with old age.

Aims

Ageing Well is a Lothian project aiming to maintain and promote physical and mental health and wellbeing and quality of life for inactive and socially isolated people aged 50+.

Methodology

Ageing Well adopts a peer support model where trained volunteers lead, encourage and support their peers to adopt a more active and healthy life. Ageing Well activities are across a range of settings.

Results

Recent analysis of project evaluations shows that:

- 85% of participants positively changed their attitude towards physical activity
- 72% changed their behaviours
- 70% experienced improved health and wellbeing
- 88% of volunteers report improved health and wellbeing
- 91% of participants met new people through the programme
- All volunteers would recommend volunteering to others.

Participants reported increased confidence, reduced social isolation and improved mental health. A study conducted in 2011 showed that social return on investment was at least five times the cost of the project's delivery.

Conclusion

Although research shows that physical activity levels decline dramatically with age, the Ageing Well project provides a proven effective route for engaging with and motivating older people to meet with others and improve their health and wellbeing through physical activity.

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Learning the lessons of resilient older cyclists

Ben Spencer¹, Tim Jones¹, Kiron Chatterjee² & Heather Jones²

Oxford Brookes University¹ and University of the West of England²

Background

With low levels of cycling among older adults in the UK the cycle BOOM¹ project seeks to understand cycling among those 50 and over and how this affects independence, health and wellbeing.

Aims

cycle BOOM aims to use this understanding to advise policy makers and practitioners how our built and social environment and associated technologies can be designed to help people to continue to cycle in older age or to reconnect with cycling.

Methods and theoretical approach

In order to understand the detail of cycling practices 43 existing cyclists, from Oxford and Bristol, participated in mobile observations and subsequent video elicitation interviews. Participants rode a route they were familiar with through their local urban area. A researcher with a handlebar-mounted video recorder linked to high quality binaural microphones followed the participant. The resulting video was used as the basis for a semi-structured interview examining the behaviours and experiences of the participants during the ride. This and related information about the case cities was analysed using Jensen's concept (2013) of mobility being staged 'from above', through the design and planning of material spaces, and 'from below', through social interaction and embodied performances.

Findings

The paper will highlight the strategies and tactics 'resilient' older cyclists use to maintain their cycling as they age, their experiences of cycling and the impact on their wellbeing. Conclusions will include how specific social, technical and physical design interventions, from above and below, could support cycling as part of strategies to promote healthy ageing and how they relate to users of other modes.

References

Jensen, O.B. (2013) *Staging Mobilities*. Ashgate.

¹ *Three-year project funded by the Research Councils UK Lifelong Health and Wellbeing; Design for Wellbeing: Ageing and mobility in the built environment programme.*

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The Methodology for Evaluating and Improving Urban Accessibility for All. A Case Study of Singapore.

Gintaras Stauskis

Vilnius Gediminas Technical University

Ensuring equal opportunities of public life for all citizens indicates civil maturity of any society, especially in the dynamic context of recent demographic challenges as ageing, growing numbers of displaced and migrating citizens. Creation of a human city environment is the basic instrument to facilitate social integration and abilities into active public life of people of all ages, instead of sheltering them from a society by providing excessive social services.

The study presents a research-based and practice-tested methodology for evaluating and improving urban accessibility in public areas by a case study in Singapore. The originality of the method lays in empowering the disabled persons themselves to play the active role of evaluators and experts in measuring and evaluating urban accessibility. The used methodology allows for urban designers and city managers to evaluate accessibility on different scales: in open public spaces as streets and land plots, in buildings of diverse functions, and in their interiors.

As a result, the author presents recommendations for improving accessibility in the city by updating building regulations, improving the quality of urban design as well as by the construction and maintenance of urban spaces and buildings. The results of this research provide a comprehensive and easy-to-use tool for compiling an action plan to improve barrier-free urban environments in Singapore and in other cities. Conclusions present the model of coherent accessibility improvement and monitoring programme that eliminate barriers and increase quality of urban environment for all citizens.

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Bringing NHS landscapes alive for an elderly population

Felicity Steers & Rolf Roscher

erz

Outdoor places are social glue that can help to bind communities and people together. This is especially important when you get isolated groups or individuals.

The NHS holds large tracts of underused land that can be used to benefit patients, staff and the community. Hospital grounds can be cost effectively redesigned for therapeutic use or to support community activities that enhance wellbeing, especially for isolated groups such as dementia sufferers. We have been exploring varied ways to make the landscape work hard to support health, wellbeing, therapy, education, community and legibility all of which are themes that effect the care of elderly people.

At erz we have been looking at both existing campuses and new builds to explore how best to use the outside spaces to support the indoor activities. Within this context designing for the needs of an elderly population and for people with dementia is becoming paramount.

We have a mix of built projects in Scotland and ongoing studies that we will use to demonstrate how to implement a shift from indoor to outdoor therapies.

Pictures, photos and plans will illustrate our approach. Sites include Midpark Hospital in Dumfries, the Prince and Princess of Wales Hospice in Glasgow, the Hansel Foundation in Ayrshire, Royal Edinburgh Hospital and Newcraigs Hospital in Inverness.

We will use references to other projects and our own examples to demonstrate how this investment in outdoor spaces benefits everyone, saves money and adds value. We discuss how these projects have been implemented and what impediments and incentives there are for developing ideas on other sites.

www.erzstudio.co.uk

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Explore specificity of walkable spaces in contemporary Chinese cities: a study of context-specific behavior for active mobility in terms of street vendors

Ziwen Sun

University of Edinburgh

In contemporary Chinese cities, street vendors frequently take place in a predictable space where abundant people frequently walk or stay. In this sense, the ubiquitous phenomenon of street vending is closely related to a walkable space in the Chinese context. This phenomenon provides a great opportunity for a new initiative, which helps us to understand the environmental correlates of the 'walkable space' through mapping street vending.

Space syntax will be used to look at the spatial relation between walking and street vending. The study will examine whether two street network measures (intersection density and street integration) are independently related to locations of street vending (as walkable space). This study will also try to discover different walking behaviours through different types of street vending (as mobile destinations and mobile amenities) based on natural movement theory (i.e. 'through' / 'to' movement). For instance, as street vending emerges due to everyday demands of local people, it can be considered as a utilitarian behaviour regarding walkability, so that types of street vendors might interact with different purposes of walking trips according to the 'through' or 'to' movement.

The use of space syntax in relation to the phenomena of street vending has the potential to provide a novel insight into the built environment, which may influence the context-specific behaviour of walking trips. By understanding how the daily walking of nearby people relates to the various agencies of street vending, a specific walkable paradigm might be explored by spatial behaviours in cities and neighbourhoods.

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Do forests influence health and inequalities over the lifecourse?

Jennifer Thomson, Jamie Pearce, Niamh Shortt & Catharine Ward Thompson

University of Edinburgh

Background

Studies show that forests provide opportunities for reducing stress, improving mood and quality of life. Evidence also suggests that greater access to forests is particularly beneficial to those of low socioeconomic position. Therefore forests may have a role in reducing health inequalities. To date there are no studies which explore the link between forests, health and inequalities through time.

Aims

The study explored the associations between forests and health in Scotland at three time points (1991, 2001 and 2011). Firstly, changes in the distribution of forests were investigated. The study examined whether access to forests has a cumulative effect on mental health outcomes and whether changes in access to forests are associated with changes in health status.

Methods

Data on all forests in Scotland, which distinguished between accessible and non-accessible forests, were created. These were linked to the Scottish Longitudinal Study (SLS) and administrative records including the Prescribing Information System and Mental Health Inpatient and Outpatient data sets. Outcome measures included general health status and being prescribed anti-depressants.

Conclusions

The study is on-going. However, preliminary results suggest that changes in forest cover were different between deprived and affluent areas of Scotland. Between 2001 and 2011, forest cover increased only in the 25% least deprived neighbourhoods. The study so far suggests that forests and any associated health benefits may be distributed unevenly across the population.

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

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Older people's experiences of mobility and mood in an urban environment: a mixed methods approach

Sara Tilley, Chris Neale, Agnes Patuano & Steve Cinderby

University of Edinburgh and University of York

Objectives

This study aims to develop a protocol to help understand how walking through different urban environments affects mood using mixed methods including electroencephalography (EEG), self-reported measures and interview results. This presentation describes the protocol, practical implications, and a critical review of these methods. In addition to a summary of findings, case studies of individual participants will be presented to highlight themes.

Methods

Healthy participants aged over 65 walked a continuous route that comprised of green space and a busy urban street in Edinburgh wearing an EEG headset. A week later, 8 participants completed reflective interviews. Participants watched a 10-minute video of the route, paused throughout to create 8 segments of interest. For each segment, participants described their walking experience and completed a Likert scale indicating how 'excited', 'engaged' and 'frustrated' they felt, corresponding to time matched Affectiv Suite EEG (Emotiv proprietary software) outputs.

Main findings

Quantitative outputs suggest changing levels of excitement, engagement and frustration between environments whilst walking, further reflected in the themes that emerged during interview. Some common themes emerged, including: anxiousness prior to walking; awareness of the experimental set-up and seeking landmarks for navigation. The weather and social interaction along the route mediated their experience.

Conclusions

A mixed methods protocol is presented focusing on mood in urban environments. This synergy of methods may offer a deeper understanding of changing mood whilst walking amongst older people.

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

John McIntyre Conference Centre, Edinburgh

11th - 14th October 2016

Mobility Mood Place - Wayfinding for the Visually Impaired

David Watts & Karen Jackson

CCD Design and Ergonomics Ltd

Designing technology and other solutions to help those with mobility problems is a difficult task. It is hard to understand the needs of a particular user group when their day-to-day experience is possibly far removed from those of the designer. Recognising this, Guide Dogs for the Blind commissioned CCD to undertake research into the travel and wayfinding needs of blind and visually impaired people. The aim was to provide insight and information that could be used by technology developers and innovators to provide future solutions that better met the real needs of people.

To capture the right insights, we conducted interviews with over 40 blind and visually impaired people, ran a number of focus groups and undertook observed journeys. To help communicate the needs of this varied group of people, we developed a range of personas of blind and visually impaired people to communicate the variety of individual needs and circumstances.

We produced a series of storyboards to communicate the range of travel challenges that blind and visually impaired people face on a day-to-day basis.

A detailed task analysis was developed covering a number of journey scenarios. The task analysis communicated a range of information on user requirements that can be met by design and technology solutions.

Travel is often a difficult and frightening prospect for many with mobility and sensory impairments. Communicating these challenges in an accessible way is critical in the development of support solutions that are likely to be useful and valued by users.

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

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Walking in Two French Neighborhoods: Park Numbers and Locations Support Everyday Walking

Carol M Werner¹, Liliane Rioux², Rene Mokoukolo³ & Barbara B Brown¹

University of Utah¹, University of Paris Ouest Nanterre² and University of Tours³

Background

If the physical environment supports walking, most people can engage in healthy walking well into their senior years. We proposed that both small and large parks can attract walkers and encourage physical activity. We asked if low “connectivity” (few routes to destinations) and/or low “walkability” would deter walking.

We studied walking routes in two neighborhoods in a French city, one contained only a large central park, the other contained 13 small parks, distributed around the neighborhood.

Aim

Our aim was to evaluate four hypotheses:

Hypothesis 1:

Groups would be similar in demographics and attitudes.

Hypothesis 2:

The large central park would attract residents from farther away, yielding longer walks. Small, well-distributed parks would result in more exploration, i.e., unique routes; loop routes.

Hypothesis 3:

The neighborhoods differed in “connectivity” (intersections per hectare), expected to support walking. “Route directness” scores assessed if both groups found adequate routes.

Hypothesis 4:

Participants would choose more walkable routes (compared to overall neighborhood walkability).

Theoretical approach and methods

Participants (N = 90, aged 32-86 years, M age = 52) completed questionnaires and drew their 3 most recent walking routes on neighborhood maps. Routes were measured for total distances walked, variety in routes, and route directness. Walkability was assessed using Irvine Minnesota Inventory (IMI) ratings.

Findings and conclusions

Both park arrangements were related to walking, with longer routes to the central park and more varied routes (exploratory behaviors) to the multiple small parks. Routes had higher IMI ratings than the neighborhood IMI ratings. Route directness did not differ, indicating both groups were able to find adequate routes to destinations.

Conclusions: Both park layouts attract walking; participants chose more walkable routes; “connectivity” may be more important for purposeful than pleasure walking.”

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Experiential understandings of healthy ageing and place amongst ethnic minority older adults

Melisa Yazdanpanahi & Ryan Woolrych

Heriot-Watt University, Edinburgh

In recent decades with increased life expectancy and an ageing population there has been a growing need to support healthy ageing i.e. everyday supports that enable independence, active living and social engagement. In this regard, different terminologies have been developed in academic and public discourse attempting to define and measure healthy ageing.

In addition to inconsistencies in terminology, there has been an attempt - through research, 'one size fits all' guidelines and generic models of age friendly communities - to homogenize experiences of old age. As a result, the experiences of ethnic minority groups have been excluded or subsumed under the category of 'old age'.

Drawing upon research conducted with Turkish communities in the UK, this paper will present data from interviews and focus-groups conducted with this group.

This paper argues for the importance of incorporating subjective views of healthy ageing amongst minority older adults into academic and policy discourse on healthy ageing and place. This is important to ensure that interventions and place-based supports reflect a cultural sensitivity to the needs of different ethnic groups.

The findings will cover issues on age-friendly communities' components including transport, leisure, social networks and cultural supports.

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

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The Impact of Elevator-free Multi-story Buildings on Seniors' Mobility

Yifan Yu, Jiatian Pu & Zheng Chen

Tongji University, Shanghai

Seniors are more likely to be restrained from movement-related difficulties and disabilities. In China, many seniors are living in the multistoried public houses constructed in the 1950s-1990s, which are mostly elevator-free. As difficulty in climbing stairs is a common complaint among seniors, here raised a question: Are seniors living in upper floors more likely to be restrained from leaving their residence than their peers living lower? How does this barrier further impact their mobility and physical activity level in general? To investigate this question, we recruited 78 senior participants from a multistoried public housing community and took a 31-day experiment wearing a fitbit wristband day and night. After invalid data removed, we obtained a dataset of 1648 inventories from 71 seniors (28 males, mean age=69.54, SD= 7.89).

A statistical significant decline of mobility was revealed as participants aged in their everyday movements measured by total steps made per day (ANOVA: $F(3,1662)=8.02$, $p<.001$) as well as total floors traveled (ANOVA: $F(3,1662)=6.9$, $p<8.53$) per day. However, the age effect was much smaller than we expected.

We observed, as expected, a barrier effect of living in the elevator-free multi-story buildings on senior mobility. However this barrier effect only began to show when seniors were living on the 4th floor or higher. Instead, multiple linear regression analysis revealed that seniors living in 4th floor or lower were more likely to climb more stairs if they lived in higher floors, and the vertical floor-climbing movement was highly correlated with general mobility as measured by the total steps made per day. Results were significant after controlling for demographic (e.g. age) and mobility-related factors (e.g. diseases and social life).

In summary, results indicated that forced stair climbing may have a complex effect on senior mobility. Too much forced vertical movement, i.e., living in elevator-free residential buildings on 4th floor or higher, actually limited seniors from leaving their residence. However, for physically healthy individuals, certain amounts of forced stair climbing may force seniors to maintain a certain level of physical activity and therefore boost their mobility.

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A Qualitative GIS Analysis of the Elderly's Place Attachment in the Neighbourhood Environment: The case of Low-income Elderly Populated Area in Seoul, South Korea

Ye-hwa Yun & Jong-sang Sung

Seoul National University

Poverty and the low quality of life of the elderly in urban areas are serious social problems in Korea. Previous literature shows that the promotion of outdoor activities has a positive effect on the elderly's physical, mental, social health. It is also known that the everyday life of an elderly becomes more attached to areas within their walking distance. Therefore 'active aging' is thought to be influenced by the actual experiences, memories and perception of the neighbourhood environment.

This study aims to investigate the outdoor activities of those aged 65 years and above living in a low-income elderly concentrated area, and how these activities are perceived. Furthermore, the study aims to reveal the barriers, facilitators and the mechanism of how outdoor activities are carried out in terms of the temporal, spatial, social and individual conditions.

This study uses a mixed method by collecting three different types of qualitative GIS data – observation mapping of residents; individual cognitive maps; and mapping based on individual GPS tracking– and in-depth interviews.

Based on the first set of observation maps, the study found that the preferred place and behavior patterns were differentiated depending on age, gender, group size and the time period. The cognitive maps revealed that the elderly's purposes of activity and their perception of the landscape differed by places such as forest, parks, open-space, vegetable gardens, and alleys among others. Finally, the GPS map provided supplementary information on the preferred routes, and processes of how place attachments were formed were cross-examined through interviews.

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Interaction between ageing people and urban open spaces: exploring the understanding of elderly emotional fulfilment and health in urban open spaces in Chinese cities - a case study of Beijing, China

Youmei Zhou & Kevin Thwaites

University of Sheffield

Many barriers surround ageing people: youth-oriented society, physical isolation, shifting social values, sensory losses, diminished power, and retirement, hindering them from affiliation and interaction with others. Open spaces provide exercise and aesthetic needs, and social connections which comfort them from loneliness, linked closely to psychological health.

There are three questions: How is a positive and psychologically barrier-free environment created for the elderly? What relationships exist in open spaces? Which elements of open space directly impact elderly people in delivering a beneficial environment?

To improve their wellbeing, it is necessary to understand the interaction between ageing people and open space; needs and habits change over time. In order to achieve this, the research will first build a conceptual framework developed to show the dynamic relationship in a microscopic perspective, a cognitive system relevant to the previous experience of the elderly, connected with the characteristics of open spaces and the ageing. From environmental psychology, this paper will develop urban design theory, gerontology, and the context of China, where habits are rooted in culture and experience, creating formulations for research of the questions. By design of the decision-making processes, the framework will deliver urban public spaces benefitting an increasingly ageing population by creating a positive social environment and enhancing the emotions of belonging - the self-identity.

The substantive outcome of this research, which this paper will provisionally outline, will be a set of design indicators for urban open space design which will optimise their capacity to facilitate a diversity of interactions for Chinese elderly people. These will then significantly enhance opportunities for social communication to the benefit of a sense of belonging, physical and mental well-being, and help overcome the onset of loneliness.

The predictive finding will be exploring the capacity of urban space with optimally potential interactive performance place attracting group effect and engaging Chinese elderly into social communication would increase the sense of belonging and wellbeing and against loneliness.

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Interdisciplinarity and co-design with older people - A reflective conversation between an architect and a gerontologist

Friederike Ziegler & Adam Park

University of Sheffield

Background

Co-design with older people is often carried out in the context of interdisciplinary research projects. Ideally this will be a very creative process leading to new insights and ways of working. However, disciplinary assumptions, values and practices may not be made explicit during the collaboration which can also lead to tensions and misunderstandings reaching into the collaborative design process with our participants.

Aims

The DWELL research project at the University of Sheffield is an interdisciplinary research project which has been co-designing age-friendly housing and neighbourhoods with older residents since 2014. Here we would like to share researchers' reflections on our own professional and individual experiences of the interdisciplinary co-design process with older residents.

Methods

In this paper we initially present a visual summary of the co-design methods. This will be followed by a conversation between the two researchers, a gerontologist and an architect, which highlights the different approaches to and perspectives of co-design and participatory research. This is part of a continuous dialogue throughout the project to balance the idealist visions on the one hand, and the demands of the pragmatist position on the other. We also demonstrate how these issues have been experienced by our participants and expressed in their own reflections.

Findings

We conclude by outlining some ethical and pragmatic guidelines for interdisciplinary researchers co-designing with older people.

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Posters

Mobility, Mood and Place: Habitats for Happy and Healthy Ageing

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Ageing and the city: urban resilience and sociospatial marginalisation of the elderly in East London

Theodora Bowering

University of Cambridge

This research seeks to interrogate the conditions and experiences of marginalisation and resilience of older people within cities, looking specifically at civic spaces within the London Borough of Newham.

Civic spaces are sites of sociability, adjacency and conflict and their social, political and spatial accessibility is essential to their diversity in the constitution of the city. The physical accessibility of the city is of increasing significance as people age, with the mobility and visibility of the elderly within the civic spaces of the city being indicative of their participation and marginalisation.

The elderly as a heterogeneous population encompass, in their access to systems, services and structures of mobility, a great diversity of degrees of motility. Transport Studies offer a rich body of research on the ways that older people engage with the civic spaces of buses, cars and trains as they map out their personal territories and networks across neighbourhoods and the city.

A questioning of age as a factor of marginality in urban studies opens up debates on spaces and practices of exclusion, isolation, loneliness and fear that link with ageing studies. Architecture and urbanism disciplines offer a unique contribution and challenge to ageing and urban debates through concrete analyses of space. These investigations act to ground abstract discussions of spatiality in social science disciplines in descriptions of everyday physical places.

The London Borough of Newham offers a rich terrain for the investigation of urban themes due to its planning and housing legacies, regeneration agenda, high deprivation and population levels and ethnic diversity. It is also relevant to a study of ageing having the third highest level of income deprivation for elderly people in the UK.

Case studies articulate a range of social and spatial contexts across the borough and the ways that older people navigate their various centre, margin and boundary conditions. Empirical ethnography and spatial mappings reveal how ordinary urban spaces are transformed through their quotidian occupation into civic places. They then reveal how fundamental these places are to the elderly, especially when vulnerable, and how they impact their ability to resist their marginalisation and be a part of the city.

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Local mobility of retirees: what are the mobility keys?

Célia Broussard

Université du Havre

Context

The mobility study introduced in this paper encompasses the local, regular mobility patterns and modalities usually experienced in one's close neighbourhood. Vincent Kaufmann explains local mobility as a short temporal mobility, inside the local area. This study focuses on retirees, who by definition are no longer tied to professional mobility constraints. Several mechanisms are at play in each step of one's mobility, from taking the decision to move, to the means of transport, and the destination. Environmental gerontology explains the importance of the relation between environment and behaviour.

Research question and method

Daily mobility hence becomes a constant trade-off for older people. Can the concept of mobility be used to understand how the notion of territory is constructed and what are the factors that drive mobility? This presentation builds on a PhD candidate project that explores retirees' local mobility patterns, with a qualitative method. Its aim is twofold: first, to provide factors for understanding retirees' local mobility patterns, and second, to understand the mobility of retirees.

Additional data was gathered from the CNAV (French National Pension System) database. In this poster, the accent is on satisfaction mobility factors for retirees, with some qualitative examples from different study areas.

Results

Some factors, as for example car use or walking in local mobility is evidenced in rural and urban areas. The presentation schematizes the local territory of retired respondents in the research.

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Inequality in health and physical inactivity among senior citizens

Sidse Carroll

The Royal Danish Academy of Fine Arts, School of Architecture

Background

Previous research addressing physical activity among senior citizens tend to focus on the actual benefits of being active hence approaching the topic from a physiological and medical perspective. Addressing a gap in interdisciplinary research combining the physiological with the built environment this research will be done in a network of three universities with architects, landscape designers and sports scientists specialized in quantitative measuring collaborating closely over a period of three years. In a Copenhagen neighbourhood of 770 flats for senior citizens this research will be focusing on intervention design in everyday life activities, social community and local urban spaces.

Aims

The research seeks to investigate and explore issues linked to health promotion; e.g. how architecture and design can influence and enhance new body cultures and public health among senior citizens – both mentally, socially and physically.

Theoretical approach

Hypothesizing that in order to address these issues and sustain the solutions local stakeholders and end-users must be engaged in all phases of the process – from identifying and defining the problem, through developing the design to the implementation of the intervention – this research bases itself on the approaches of action research and participatory design.

Methods

Acknowledging that participation in terms of actually co-designing interventions – and especially designing something unknown does not come natural to everyone, this research emphasises a visual approach; e.g. visual go-along interviews, cultural probes, workshops focusing on tangible and visual elements. Led by architects the 'visual' will be interpreted as the basis of the inclusive approach of action research.

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Illusion of Memory - "Lost in Space"

Alison Hamilton-Pryde, Fiona Pankhurst & Lee Miles

Heriot-Watt University, Edinburgh

Introduction / background

"The Illusion of Memory" is a Quality Assurance Agency (QAA) and Heriot-Watt University (HWU) Sponsored project aimed at assisting "student transitions" from Further Education to Higher Education. The project is a collaborative interdisciplinary design project between 3rd Year UG Interior Design and Woven Textile Design students at HWU. The project is in its second phase titled "Lost in Space". For the duration of the project the students shared a common theme to improve assisted living accommodation, community and commercial high street environments, ensuring they were better suited for older adults, especially those living with dementia. A key objective for the project was to ensure environments met the needs of their user groups to promote independence, safety and mobility.

Research methods

The project included a multitude of contributing individuals and organisations to assist the students learning experience through workshops, interviews, lectures and co-design experiences. Partnerships were formed with Alzheimer Scotland and 20 members of the "East Coast User Group" who have an interest in dementia, care for an individual or live with dementia. Partnerships were also formed with Trust Housing Group, researchers and PhD candidates and industry professionals.

Project outcomes

The project culminated in a lunch, presentation and exhibition of student work at the LifeCare Centre in Edinburgh whereby the East Coast User participatory group and other contributing individuals were able to observe the students design solutions and make comments upon them. The project was also selected to share good practice whilst presenting at the QAA Enhancement Themes Conference 2016, facilitated an exhibition at the HWU Scottish Borders campus Degree Show, and published a second book celebrating the projects key achievements. It is also hoped that this project will assist in the creation and application of research, inform policy, educate future generations and ensure the built environment is accessible and enjoyable for all.

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Introducing new paradigms for inclusive co-design

Tibor Kecskés¹ & Gabriella Szaszak²

Budapest Metropolitan University¹ and Szent István University²

In our time contemporary design questions are similarly complex to scientific problems. Therefore the most effective research leading to the most successful solutions can be done by a heterogeneous group of people working in different fields, just like in science.

There is a strong need to switch from traditional, individuality-based design practice to co-design in many levels. The most sensitive sort of co-working is when designers cooperate with user groups, because significant differences of interpretation may appear between the professional and the everyday approaches.

Professionals should show more respect for vernacular interpretations, and user groups should reach a deeper understanding of the professionals. The communication gap is even larger in the case of the older generation of user groups: beside the professional questions, the impact of the different paradigms of the different generations can be experienced. The efforts we make to narrow the generation gap also support the larger-scaled fight against ageism.

Age can be interpreted as one sort of disability, and some sort of disabilities have common features with the older generation's disadvantage. Therefore we can use our case studies from the field of visual impairment, since older generations mostly struggle with deteriorating sight. We are in a continuous correspondence with the Accessibility Working Group of the Hungarian Association of Blind and Partially Sighted. In this group representatives of many different fields of science and design make co-design via continuous consultations with the group of visually impaired people. We can use similar communication-methods with other disabilities as well.

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Overcoming Barriers and Identifying Opportunities for Everyday Walking for Disabled People

Rachel Lee

Living Streets

Background

Living Streets was funded by Public Health England to write a report on the barriers to and the opportunities for increasing the functional walking of everyday journeys by disabled people. Across the life course mobility difficulties increase with age and significantly over 70 years old.

Aims

The purpose of our report is to stimulate interest around the issues of disability and mobility. It does so by adopting a social model of disability which allows the identification of common physical, organisational and attitudinal constraints to walking trips (and walking as part of longer journeys) and suggests ways to overcome them. Key topics include: crossings, footways, comfort facilities, assistance, public transport and personal safety.

Methods

The report reviews published peer reviewed literature using a combination of search terms including: built environment, health, disability, older people and walking. Resulting themes informed a topic guide for focus groups conducted with adults aged 30-78 with mobility and learning difficulties. Participants were asked to describe a typical walking journey and the resulting discussions identified common physical, organisational and attitudinal barriers to walking for disabled people.

Findings

Adopting the social model of disability allows the identification of common physical, organisational and attitudinal barriers to everyday walking and the opportunities to overcome them. Changes in the organisational approach to highways management, public transport and public health delivery need to go hand in hand with a 'can do' attitude that raises expectations of disabled people and sees them as independent, active individuals choosing to walk local journeys.

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Age Scotland's National Consultation on Housing for Older People

Ciaran McDonald

Age Scotland

In the next 20 years, it is estimated that the number of people aged over 65 in Scotland will increase by nearly 60%. This will undoubtedly bring with it a number of challenges and opportunities and, as the national charity for older people, we at Age Scotland, work to ensure that all of our later years are healthy, happy and productive. We know that our needs and requirements will change over time and, as part of this, throughout 2016 we will conduct a national consultation on housing for older people.

Working with our member groups across the country, this paper reflects on the concerns or comments individuals may have about their home or neighbourhood. This is an opportunity for people to tell us about what they think we should be paying attention to and what steps policy must take to keep up with Scotland's growing ageing population.

Covering a number of topics, the findings from these semi-structured focus groups will look at how policymakers can work with older people so that they can live independently at home for as long as possible. We will also consider adaptations to the home, how to keep warm and save money in winter as well as how to maintain access to local services, such as transport, shops or social activities. Overall this research seeks to enhance how community services can be better planned for older people across Scotland.

Age Scotland is grateful to the Scottish Government for funding this project.

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The Benefits and Needs of Exercise in Public Open Spaces on Women's Health

Ahmad Maghrabi, Marcus Ormerod & Rita Newton

University of Salford

This PhD research explores women's physical activities in urban public open spaces in Saudi Arabia.

Background

Physical inactivity is a growing public health concern, and research has begun to address the physical environment, a subset of which looks particularly at the role of the environment for women. With a population of 4.1 million Jeddah is the second largest city in Saudi Arabia yet there is an acute shortage of open public spaces. Where these spaces are provided, they typically fail to meet resident's needs particularly because western design principles have been applied to this middle-eastern context thereby ignoring Islamic identity and tradition, and within this the needs of women have been similarly largely ignored.

Aim

The aim of this research is to investigate the reasons why residents, especially women, are reluctant to use urban public open spaces, and to propose new forms of urban public open spaces which are more responsive to residents needs taking account of issues such as migration, religion, gender, age, urban health, and culture.

Methods

The initial methodology will comprise a range of qualitative approaches and the strength of this is that it will provide complex textual descriptions of how people experience and use urban public open spaces in Jeddah. Research techniques will include interviews with residents and designers / professionals, go-along interviews and observation in the open spaces, which will subsequently inform a second stage design review process (which has yet to be determined).

Progress to date

This is a first year PhD study in which the context of the study has been developed, as has the scope (including aim / objectives and initial approach to methodology).

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Out and About: Experiences of living with dementia in the community

Rahena Mossabir

Lancaster University

In the UK, over 850,000 people are diagnosed with dementia, and two thirds of this population live at home. Place, such as the home and community, is a fundamental feature of human experience, including experience of health and wellbeing.

In terms of experiences of people with dementia in the wider community, existing research has documented a number of challenges people face due to the physiological and social implications of living with dementia. Responding to these findings, the UK Prime Minister, in 2012, called for all towns, cities and villages to become dementia friendly. However, how such relationships between people with dementia and place are (re)negotiated and what they reveal about the relations between the different dimensions of place and wellbeing has not yet received much attention.

As part of a larger PhD project, research presented here is from a pilot study exploring engagement of people with dementia with everyday places in the community and their implications for experiencing wellbeing in a holistic way. Adopting an ethnographic approach, involving life history and walk-along interviews, this study focused on the experiences of two people with dementia and their family care givers.

Findings pertain to three key themes 1) how people with dementia and their family members make decisions about places they engage with, 2) purpose and characteristics of places engaged with and 3) ways in which people with dementia engage with place and their benefits.

Applying the therapeutic landscape concept enabled an enhanced understanding of the relationship between place and wellbeing.

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Landscape planning for active urban living: greenspace connectivity and walking in the city

Mei-lin Su

University of Edinburgh

Given that the availability of greenspace is associated with physical activity promotion, researchers begin to explore the mechanism behind the relation between urban greenspace and levels of walking. However, although the provision of urban greenspace is generally seen as key to supporting walking in a community, the contribution of the spatial attributes, i.e. the amount of or the proximity to greenspace, remains obscure.

The research aims to establish the association between the spatial attributes of urban greenspaces and walking. The specific attention is paid to the green path connectivity- the integrated urban greenspace along with the pedestrian circulation. An assumption is made that the strategically connected network of greenspace and walking path is the essential infrastructure, leading to increased opportunities for everyday walking.

The analysis of the greenspace connectivity is assigned on the basis of Landscape Ecology theory. It also involves the GIS-based assessment for the configuration of walking path. The speedily developed Asia cities suffered from both problems of the fragmentary urban greenspaces and the sedentary urban life serves as the main study area; a case study in Taipei City, Taiwan is consequently utilized. The national health survey supplies measures of reference for defining residents' level of walking and active lifestyle.

The statistics analysis with the support of GIS mapping conveys the association between the configuration of green paths and the engagement of daily walking. It consequently argues that developing pedestrian segment integration along urban greenspace is an alternative to encourage residents' take-up and maintenance of active travel.

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Developing a Nature Experience Path for Older Adults

Sari Suomalainen¹, Heli Starck² & Erja Rappe²

Häme University of Applied Sciences¹ and The Age Institute, Finland²

Background

Lack of physical activity is inversely associated with health and functioning among older adults. Green environments may provide a tool to motivate them to exercise because green spaces are positively associated with physical activity levels and many perceived health benefits.

Aims

The aim of this study is to find out how to implement research outcomes of exercise and health supportive green environments into practice in a co-creative process with local older adults in Hämeenlinna, students of Häme University of Applied Sciences and the research organization Age Institute.

Theoretical approach and methods

The co-creative project will put research into practice by developing a Nature Experience Path for older adults in a built environment. Nature elements are utilized to activate senses and motivate older adults to move. The practical case examples will be implemented in three different surroundings (public park, residential area and sheltered home) in the city of Hämeenlinna in Finland by June 2016. The experiences of older adults visiting the path will be studied by interviews and questionnaires. The use patterns of the path will be examined by observation.

Findings

Preliminary results of perceived effects on users will be presented. The comparative analysis of three different surroundings will provide knowledge for implementing and developing the Nature Experience Path. The implementation process will be documented step by step and knowledge can be utilized both for planning new areas and rebuilding existing areas.

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The associations between sense of neighbourhood open space and activities of aging people in Chinese cities

Youmei Zhou & Kevin Thwaites

University of Sheffield

As the recession of the physiological function, the transformation of objective social factors and roles in a family are changing with age, some of the development and the accumulation of negative emotions become psychological barriers for some elderly people. The consequence of this will result in self-isolation and certain psychological problems. However, wider significance of aging people's activities in neighbourhood open spaces and in perceptual dimension still remains insufficiently explored.

The age-friendly sense of neighbourhood open spaces is built by behaviour settings of the elderly, which also motivate the others for further communications. Successful design of the neighbourhood will allow people to experience a stronger sense of belonging.

This research is an attempt to explore the association and interaction between sense of neighbourhood open spaces and characters and needs of Chinese aging people's activities. The study designation includes self-administered questionnaires, in which the sample consisted of 384 aging people over 55 years old living in the Chaoyang district in Beijing city in China, in order to examine the association between the physical environment, activities and feeling of aging people.

Additionally, interviews have been conducted with some elderly users to explain their thoughts in-depth. An effective comprehensive conceptual framework will be identified based on the analysis of the data. This could be projected into the design process, which may offer a psychological belonging and engaging design and real age-friendly environment.