



ENVIRONMENTS BY DESIGN

HEALTH, WELLBEING AND PLACE

AMPS PROCEEDINGS SERIES 26.1

Italian Society for the Sociology of Health, Syracuse University, Chalmers University of Technology, Northumbria University, AMPS

Virtual: 1-3 December, 2021

Environments by Design: Health, Wellbeing and Place

EDITORS:

Göran Lindahl & Charlotta Thodelius

EXECUTIVE EDITOR:

Eric An

COPYEDITOR:

Amany Marey

© AMPS

AMPS PROCEEDINGS SERIES 26.1. ISSN 2398-9467

INTRODUCTION

Environments by Design: Health, Wellbeing and Place

This proceedings publication is the outcome of the conference *Environments by Design – Health, Wellbeing and Place*, held in December 2021 as a virtual conference. It was coordinated by the research group AMPS, Syracuse University, Northumbria University, The Italian Society for Sociology of Health and Chalmers University of Technology / Center for Healthcare Architecture. The context for the event was the outbreak of COVID-19 and the subsequent lock-down that highlighted the important relationship between health and the spaces we inhabit. The impact it had on spatial activities as simple as commuting or meeting socially in public space are examples of this.

While the multitude of spatial effects evidenced by the pandemic make it tempting to see the concern about health and the spaces we inhabit as new, research and studies focusing health, wellbeing and spatial conditions have a long history pre-dating COVID-19. Seen in this light, the *Environments by Design* conference placed recent experience and responses against a backdrop of previous research into health, wellbeing and environments. Consequently, the conference brought together a diverse set of theorists and practitioners who examined a wide range of interrelated questions and issues from a range of disciplinary perspectives.

Examples of this diversity included analyses of the impact of the built environment on urban health, health related critiques of housing, and the spatial analysis of health facilities. It also included socio-spatial critiques related to ageing, spatial inequalities across communities, and the funding and planning of welfare institutions. Other scholars addressed the importance of socio-cultural factors and design as issues that impact the health and wellbeing of people in various ways. This diversity of approaches was also visible, and embedded, in the thematically-focused sessions that structured the conference such as: Ageing and the Built Environment; Covid 19; Cultures, People, Place; Health and environments; Health facilities; Health, Wellbeing and Buildings; Healthy Cities; History, Colonialism and Health; Health and Housing; Interiors-Exteriors and Health; Mental Health and Designed Environments; Society and Health; Socio-political Built Environments; Technology, Cities, Health, and more.

The papers collected in this publication then, reflect the variegated nature of the conference themes and provide an in-depth exploration of current research related to built environments, health, wellbeing and place. The theoretical, historical and design approaches in each chapter (whether separately or in combination) provide the basis for the presentation of diverse ideas that move current scholarship forward. As evidenced by the politicization of the pandemic, this is more necessary today than ever, now that research competes in a world characterized by a flora of contested facts. It is a world in which we could argue that while there may be no truth, there surely are true facts.

Professor Göran Lindahl, Centre for Healthcare Architecture, Chalmers University of Technology

Dr. Charlotta Thodelius, Faculty of Police Work, University of Borås

TABLE OF CONTENTS

Chapter 1	
THE ANALYSIS OF A PAEDIATRIC TREATMENT ENVIRONMENT IN THE CONTEXT OF NURSES' AND COMPANIONS' BEHAVIOURS THROUGH SPACE SYNTAX AND BEHAVIOUR MAPS..	1
Nevset Gul Canakcioglu, Alper Unlu	
Chapter 2	
BIOPHILIA AND THE CITY: TOWARDS AN URBAN WALK	11
Thomas Pepino	
Chapter 3	
SPATIAL USE IN SCHOOL SHOOTINGS - NEW WAYS OF LOOKING AT SCHOOL DESIGN	22
Charlotta Thodelius	
Chapter 4	
RETHINKING THE WELL-BEING FRAMEWORK IN THE CURRENT SCENARIO	29
Valeria Minucciani, Nilufer Saglar Onay	
Chapter 5	
USING HUMAN IN THE LOOP AI SOCIOECOLOGICAL MODELING FOR GUIDING INFECTION PREVENTION THROUGH DESIGN RESILIENCE	38
Lisa Sundahl Platt	
Chapter 6	
SPACE-RELATED VULNERABILITY IN THE COVID-19 PANDEMIC: FROM COMMUNITY DWELLING TO THIRD PLACES	46
Ivana Matteucci	
Chapter 7	
HOME CARE DESIGN FOR PARKINSON'S DISEASE: APPLYING METHODS FOR HCD TO ANALYSE THE NEEDS OF PEOPLE WITH PARKINSON'S	56
Mattia Pistolesi, Francesca Tosi, Linda Lombi	
Chapter 8	
EMPLACING WESTERN HEALTH IN INDIGENOUS SPACE	67
Janet McGaw, Alasdair Vance	
Chapter 9	
ADVANCING HEALTH EQUITY THROUGH INCLUSIVE DESIGN	78
Victoria A. Lantaigne, Traci Rose Rider, Peter A. Stratton	
Chapter 10	
PHYSICAL DESIGN OF SUPPORTED ACCOMMODATION FOR PEOPLE WITH MENTAL HEALTH PROBLEMS AND INTELLECTUAL DISABILITIES: A SCOPING REVIEW	90
Anne Johnston, Gavin Davidson, Paul Webb, Neil McCartan, Keith Mcallister, Richard Broughton, David Sutherland, Christine Kennedy	

Chapter 11	
ADVANCING EUDAEMONIC DESIGN AS AN APPROACH TO AMPLIFY HEALTH AND WELL-BEING IN THE BUILT ENVIRONMENT	100
Jenna Mikus, Deanna Grant-Smith	
Chapter 12	
SOCIO-SPATIAL PRACTICES OF WELL-BEING: AUTHORS OF CIVIC ECOLOGIES	113
Jane Mcallister	
Chapter 13	
AN INVESTIGATION INTO THE VALUE OF DESIGN IN NATURE-BASED SOLUTIONS FOR HEALTH AND WELLBEING IN A POST-COVID WORLD	123
Qian Sun, Anna Jorgensen, Amy Corcoran	
Chapter 14	
PUBLIC TRANSPORT, NEW SUSTAINABILITY CHALLENGE IN OMAN, CASE STUDY-MUSCAT	133
Soheir Mohamed Hegazy	
Chapter 15	
DESIGN STRATEGIES FOR NATURAL CARE ENVIRONMENTS FOR PEOPLE WITH DEMENTIA: THE CASE STUDY OF CASCINA GRACE	144
Jing Chen, Silvia Maria Gramegna, Alessandro Biamonti	
Chapter 16	
(CL)ADDING THE BALCONY WALL AS BREATHING ENVELOPE FOR HOUSING: THE REHABILITATION OF PHYSICAL AND MENTAL HEALTH	154
Eunji Cho , Sung-Taeg Nam	
Chapter 17	
FORM FOLLOWS FUNCTION FOR ALL: A PERFORMANCE-ORIENTED APPROACH TO SUPPORT SOCIAL INCLUSION IN THE BUILT ENVIRONMENT.	165
Efthimis Kapsalis, Nils Jaeger, Brendan Ryan, Paolo Beccarelli	
Chapter 18	
ENGAGEMENT BY DESIGN: HOW FOUR RESIDENTIAL GARDENS IN THE RANDSTAD (NL) STIMULATE HEALTHY INTERACTIONS BETWEEN INDIVIDUALS, COMMUNITY, AND PLACE.	176
Monica Veras Morais, Bieke Cattoor, Ellen Van Bueren	
Chapter 19	
ENVISIONING SOUND SENSING TECHNOLOGY FOR ENHANCING URBAN LIVING	186
Emily Corrigan-Kavanagh, Andres Fernandez, Mark Plumbley	
Chapter 20	
A SALUTOGENIC APPROACH TO AGE FRIENDLY HIGH STREETS	196
Luca Brunelli	
Chapter 21	
IMPACT OF LIVING ENVIRONMENT ON SOCIAL RELATIONSHIPS OF OLDER PEOPLE WITH DEMENTIA IN CARE AND ATTENTION HOMES	206
Mei-Yung Leung, Ruozhu Yin, Chendi Wang	

Chapter 22

THE NATURE OF HEALTHY SPACES: BIOPHILIC AND BIOMIMETIC INSPIRED PROJECTS TO PROMOTE QUALITY OF LIFE 217

Alice Araujo Marques De Sá

Chapter 23

LOCKED DOWN AND LOCKED OUT: THE ROLE OF THE BUILT ENVIRONMENT IN THE EXCLUSION OF DISABLED PEOPLE DURING THE COVID-19 PANDEMIC 228

Vera Kubenz, Dina Kiwan

Chapter 24

ANALYSIS OF PARENTAL PERCEPTION OF CHILD FRIENDLINESS OF THE NEIGHBORHOOD AND INFLUENCING FACTORS 239

Xiaoli Gong, Pauline Van Den Berg, Theo Arentze

Chapter 25

INNER GEOGRAPHIES AS AN INTERDISCIPLINARY APPROACH TO INNER WELLBEING: THE PSYCHO-SPATIAL CONNECTION BETWEEN HUMANITY-CENTRED EXPERIENCE AND VALUE-SENSITIVE DESIGN 256

Mizan Rambhoros

Chapter 26

POST REFORM HEALTH CARE STRUCTURE IN SWEDEN – ARCHITECTURE, ORGANIZATION AND HOW TO GET THERE 268

Jens Widmark, Göran Lindahl

A SALUTOGENIC APPROACH TO AGE FRIENDLY HIGH STREETS

Author:

LUCA BRUNELLI

Affiliation:

MACKINTOSH SCHOOL OF ARCHITECTURE, GLASGOW SCHOOL OF ART, UK

INTRODUCTION

Meeting the challenges of an ageing population has generated debate on the types of supportive environments needed to enable older adults to retain a sense of independence and well-being in their everyday life. Ageing-in-place policies have recognized the need to go beyond achieving a close fit between housing characteristics and personal needs. For many older people it is the chance to be connected to the community and participate in local civic and social life, this entails the use of a variety of urban settings, including the main commercial streets, the so-called high streets. Despite their perceived decline they are a prominent feature of the everyday environment in which many people grow old and continue to cater for the everyday needs of a wide sector of the population providing access to shops and services at local level. Yet, there has been little attempt to articulate this within the everyday lives of older adults and as a result, we have limited understanding of how these locales can be designed to better support older people. In the design of the public urban realm older people have been usually considered a vulnerable group and their needs frequently narrowed to issues of physical mobility. In addressing this gap, this paper describes the findings of empirical research based on three case studies in Edinburgh and it explores the salutogenic - health and well-being supportive - potential of these locales for an ageing population.

AGEING IN PLACE AND THE LOCAL HIGH STREETS

Older people have been seldom mentioned in urban design literature until the launch of the World Health Organisation (WHO) Age-friendly cities programme¹ when more references to age-friendly environments began to appear. In general, urban designers have been reluctant to engage with the topic of ageing² and in the design of the public urban realm older people have been usually considered a vulnerable group and their needs frequently narrowed to issues of physical mobility³. Yet, due to the population ageing this demographic sector is no longer a minority, ‘Older people [are] everywhere’ was Christopher Alexander premonitory claim in the late 1970s in his pattern no. 40⁴. This demographic sector is about 17% in UK⁵ and projected to grow in the coming decades^{6,7}. Older people are, and gradually will be everywhere. With specialised housing falling short of a growing demand, people not only prefer to age in their own place, but likely this will be their only viable option. As a public policy ‘ageing in place’ aims at fostering healthy ageing - adding years to life - promoting suitable domestic environments, and keeping people connected to the places and the community they know best. Within this everyday environment local high streets are a prominent feature.

High streets have historically supported a great portion of urban activity due to their “dual function as ‘links’ in a movement system that connects places and as destinations, or ‘places’, in their own right”⁸. They functioned as channels of movement and communication, providing the “infrastructure” for everyday activities and related housing opportunities offering convenient access to amenities and services and can be a focal point for community and social interaction and participation⁹. They have been described as “the public space through which a significant proportion of Britain’s sizeable urban population are able to access a range of consumer, commercial and community services”, and particularly those “disadvantaged members of the society” with lower income and restricted mobility, such as the elderly among others¹⁰. Specific mention to an ageing population in the literature and reports on the regeneration of UK high streets is sparse with reference to issues of mobility and access^{11,12}. Reference has been also made to the needs of all age groups¹³ supporting interaction between generations¹⁴ and appealing to “younger and older people”¹⁵.

The traditional emphasis on shops and trade makes UK high streets victims of a market led urbanism which proves unable to accommodate swift changes in consumers’ behaviour and fails to find suitable alternatives to keep them vibrant places of exchange¹⁶. The Royal Institute of British Architects (RIBA) ‘Silver Linings’ report¹⁷ suggested that “the British High Street in 2030” and an active Third Age could be mutually “invigorated”. The former becoming attractive to a wider population as liveable hubs of social and economic activity, the latter improving their well-being and health. As such, the RIBA scenario seems to be situating the high street within the “healthy settings” framework advocated by the Ottawa Charter for Health Promotion¹⁸ which, being influenced by medical sociologist Aaron Antonovsky’s salutogenesis theory, put everyday environment at the core of health and well-being creation. By studying concentration camps survivors that managed to thrive in the post-war, Antonovsky questioned the prevalent idea that equated health with the absence of disease and tension and acknowledged that our condition is an incessant movement along an ease/disease continuum. Salutogenesis was for him the movement towards the health and well-being end of this scale, achieved by managing resources through a general disposition to life - the Sense of Coherence (SOC)^{19,20}. Resources, Antonovsky reminded us, can be both internal – physical and psychological – and external – such as for example the social network, and the places in which one lives, which in UK may include the public realm of local high street.

This paper moves away from functional ecological models of ageing²¹, and looks at the relational aspects of well-being and place^{22,23}, considering how salutogenesis theory provides a theoretical link between the analysis of specific settings and older people self-reported well-being. The three components of SOC, namely comprehensibility, manageability, and meaningfulness, echo similar concepts in urban design, and suggest a link between urbanism and the subjective experience of ageing in place. The RIBA ‘Silver Linings’ report is speculative in nature, and little tells us how these places are currently used and what people’s experiences are. To understand to what extent local high streets can be considered salutogenic settings supporting ageing in place empirical research was undertaken on local high streets. The following sections of the paper describe the methodology used in the research and then discuss the findings in relation to SOC main categories and cognate urban design concepts.

METHODOLOGY

This section introduces the research design and the methods used to collect and analyse the data.

Place-based cases studies

An in-depth, inductive place-based investigation was undertaken to explore older adults' well-being, defined in this paper as in other people-environment studies^{24,25} as the self-reported subjective assessment of what people describe as having a positive impact on their daily life experiences. A purposive sampling strategy was adopted and 84 participants ranging between 63 and 96 years old were recruited in the local communities around three local high streets - also referred to as 'local town centres'²⁶ - in the city of Edinburgh, Scotland. These locales - Corstorphine town centre (CTC) in the west, Leith Central town centre (LTC) in the north-east and Morningside town centre (MTC) in the south - were chosen to capture a wide spectrum of social, economic, and urban variables as illustrated in Figure 1.



Figure 1. Three Edinburgh local high streets chosen as case studies.

Data collection and analysis

A range of interviews were chosen as the primary method of data collection to access place meanings and behaviours from the perspective of older people. Walking interviews (n=25), along an itinerary of participants' choice, were prioritised to place the narrative of participants' experience in its spatial context, allowing for a greater understanding of the interaction with the built environment and for situated social encounters to be observed and recorded^{27,28,29}. Semi-structured interviews (n=16) were used to achieve an in-depth discussion about perceptions, feelings and life course events, and twelve focus groups (n=51, 3-8 participants) were undertaken amongst community groups around already scheduled activities providing an opportunity to develop more collective understandings of place. Interviews' recordings were transcribed verbatim and the data was analysed following a "thematic analysis" approach³⁰ developing a framework aiming to identify well-being related resources – from features of the physical environment to social settings and activities.

RESULTS AND DISCUSSION

Four main dimensions of well-being that the socio-spatial realm of local high streets afford emerged from the research, namely: social interactions, from meeting friends to passive sociability; a general sense of attachment and belonging nurtured by the re-enactment of memories; the pleasure derived from feeling out of home and active; and a sense of mastery and autonomy in pursuing activities of daily life. These dimensions are below discussed in relation to SOC categories and in doing so the

links between salutogenesis theory and key features of the high streets public realm that were reported beneficial for older people's well-being are highlighted.

Comprehensibility

Antonovsky conceived comprehensibility as “the extent to which one perceives the stimuli that confront one, deriving from internal and external environments, as making cognitive sense, as information that is ordered, consistent, structured and clear”³¹. For many older people local high streets can be considered as comprehensible and distinctive places within a landscape of everyday urban settings. Comprehensibility turned to be sustained by the social and quasi-parochial³² dimension of local high streets.

Comprehensible high street features

Interviewees referred to “familiar faces”, including shopkeepers and sale assistants as “categorically known others”³³, even if the quicker turnover of shops and businesses may unbalance their dependability in the longer run. As spatial cognition comprehensibility is relevant to read a place as distinctive, and to move around easily. Conversely, a comprehensible environment is the one with a strong imageability and legibility³⁴, which can facilitate wayfinding. In local high streets the main contributing factor to comprehensibility proved to be the variety of small shops in active frontages. Small outlets make the place more attractive, offering a “stimuli” that in a virtuous circle, triggers interest, prompts older people to leave home and fosters their mastery of the place.

Manageability

Manageability is according to Antonovsky how “one perceives that resources are at one's disposal which are adequate to meet demands posed by stimuli that bombard one”³⁵. It is related to the experience of stress and the correspondent capacity to cope; to the perception of one's own capacity of being influential in shaping the environment; and to the availability of resources and the ability to make use of them.



Figure 2. Managing daily errands.

Local high street as manageable everyday setting

Participants considered local high streets manageable when the streetscape is sufficiently accessible, and they feel secure to go around. Whilst some reported the need for improvement to the streetscape – particularly in relation to the width and quality of pavements - they generally found the three case studies offering the right balance of vibrancy in terms of people and traffic, as opposed to the city centre which is considered overloading. In the literal sense, manageability also means being empowered to make decisions about the place and can be related to the political dimension and decision-making process concerning the spatial milieu of the local high streets. Public engagement in these locales was usually limited to statutory planning consultations and a greater sense of ownership emerged only when a local community centre run by volunteers moved within premises on the same high street. The combination of public café, charity shop, children soft-play area, and a range of spaces available for daily activities proved to be very successful, ultimately prompting group of elderly to engage with the consultations about the redevelopment of the block. We can also think of manageability as the ability to make use of available services and facilities. They may well be available along the street, however, when physical and cognitive faculties are on the wane it is their spatial distribution that matters most. The clustering of amenities at reasonable walking distance from bus stops can make the offer more manageable and therefore truly supportive for everyday errands and activities. Finally, the perceived “convenience” of local high street is not limited to access to shops. It also entails an appraisal of potential social encounters, which encourage everyday use of their public realm accruing to the meaning of the place.

Meaningfulness

Meaningfulness is, for Antonovsky, the most important component of the SOC. “It refers to the extent to which one feels that life make sense emotionally, that at least some of the problems and demands posed by living are worth investing energy in, are worthy of commitment and engagement, are challenges that are welcome rather than burdens that one would much rather do without”³⁶. Antonovsky refers here both to the general understanding and self-confidence in everyday life, and also to the expectations of emotional rewards that life experiences may provide.



Figure 3. A meaningful public realm.

Meaningful local high street for ageing well.

In this study local high streets are meaningful to the extent they motivate people to “go out and about” welcoming the demands posed by the environment and being receptive to the emotional rewards that the everyday use and the aesthetic experience – the atmosphere³⁷ - of these streets provides. Local high streets have been - and for many older people still are - urban repository of affects and memories that underpin attachment and identification with the place in which they are ageing. However, one single dimension of everyday use of these locales emerged above all others: the opportunities of social interaction they afford.

Antonovsky always stressed the relevance of the impact of society and social conditions on people health and well-being. The responsibility in moving to the health end of the “ease/dis-ease continuum” is not one’s personal choice, for Antonovsky it resides in the interplay of the individual and society and as such is very much a collective endeavour. Social life can contribute to meaningfulness of life, and not surprisingly for many older people, with a shrinking social circle and frequently living alone, errands and other activities are often a pretext to get out from home to meet people at a local high street. From the feeling of connection when surrounded by other people in local cafes, to fleeting encounters with the aforementioned ‘categorically known others’³⁸ in shops and supermarkets, or to arranged meetings with friends and acquaintances, meaningfulness in local high street is to be found in a variety of forms and spaces. Comprehensible and manageable local high streets can let an ageing population harness better the opportunities of social interaction these locales afford, making them meaningful, and therefore relevant for a positive movement towards the healthy end of Antonovsky’s continuum in later life. Figure 2 below summarise the key well-being supportive features of high streets hitherto discussed in relation to the three categories of the SOC.

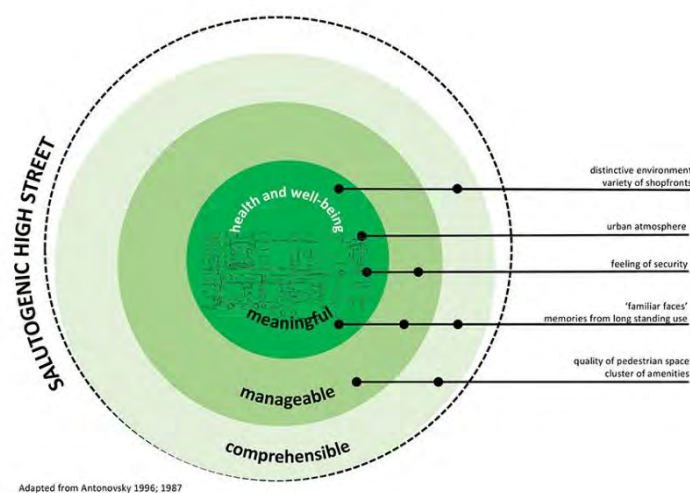


Figure 4. The three dimensions of the salutogenic high street.

CONCLUSION

The Edinburgh case studies considered in this research are a positive demonstration of commercially active local high streets that afford access to services, amenities, and social interaction in a variety of forms. They are relevant places for the people ageing within the community and a quintessential source of everyday well-being. However, the decline of many similar places across the UK, demonstrate that their relative success cannot be taken for granted. Social historian Peter Laslett pointed out³⁹ that the demographic change will be faster than we are aware of - older people will be

everywhere soon - and the current laissez-faire approach is not likely to deliver the RIBA ‘invigorated’ UK high streets scenario⁴⁰ to support this growing demographic sector. The COVID-19 pandemic seemed to provide an opportunity to improve the streetscape of several high streets in Edinburgh. The local council promoted the so called “Space for People”⁴¹ plan and in 2020 introduced temporary traffic regulation orders (TTROs)⁴² to help physically distance and improve pedestrian and cycling access to local shops and services. This resulted in wider pathways providing more space for pedestrians to move around particularly at certain pinch points as shown in Figure 5.



Figure 5. Provisional “spaces for people” measures in local high street.

Albeit provisional in character, not resolving in full the existing accessibility shortcomings these measures responded to some of the findings of this research increasing the space available for pedestrian. Following a public consultation in 2022 though, most residents and business⁴³ supported the removal of all measures in local high streets. It remains to see if the consultation reached out to older people as the only available breakdown by age is the one reported on the market research⁴⁴. Never mind what seems for the time being a provisional response – the TTROs - to a critical situation – the pandemic, what this research has shown is that local high streets have the potential to support the well-being of those growing old, if only we aim to re-design these streets as comprehensible, manageable and meaningful places.

NOTES

- ¹ World Health Organisation, *Global age-friendly cities: A guide*. World Health Organisation (Geneva: WHO, 2007)
https://www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf
- ² Sophie Handler, "Alternative age-friendly initiatives: redefining age-friendly design", in *Age-Friendly Cities and Communities: A Global Perspective*, ed. Buffel T., S. Handler, and C. Phillipson (Bristol: Policy Press, 2018), 211–230.
- ³ Matthew Carmona et al., *Public places, Urban spaces* (London: Routledge, 2003)
- ⁴ Christopher Alexander, *A pattern language: towns, buildings, construction* (Oxford University Press, 1977)
- ⁵ Office National Statistics (ONS, 2011). Retrieved January 2022 <https://www.ons.gov.uk/>
- ⁶ Office National Statistics (ONS, 2018). Retrieved January 2022,
<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/subnationalpopulationprojectionsforengland/2018based>
- ⁷ National Record of Scotland (NRS, 2020). Retrieved January 2022
<https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-projections/sub-national-population-projections/2018-based>
- ⁸ Peter Jones et al., *Rediscovering mixed-use streets: the contribution of local high streets to sustainable communities* (Bristol: Policy Press and Joseph Rowntree Foundation, 2007), p. xi
- ⁹ Carmona
- ¹⁰ Sam Griffiths et al., *The Sustainable Suburban High Street: A Review of Themes and Approaches*, Geography Compass, 2(4), 1155–1188.
- ¹¹ Roger Mackett et al., *Improving Access in St Albans – Report on a Consultation Exercise*, (UCL, Centre for Transport Studies, AUNT-SUE Consortium, 2011).
<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.615.6931&rep=rep1&type=pdf>
- ¹² Neil Wrigley et al., "High street performance and evolution: a brief guide to the evidence." University of Southampton, (2014) doi:10.13140/2.1.3587.9041
- ¹³ Royal Society for Public Health, *Health on the high street* (RSPH, 2015)
<https://www.rsph.org.uk/our-work/campaigns/health-on-the-high-street/2015.html>
- ¹⁴ Andres J. Coca-Stefaniak et al., *High Streets and Town Centres in 2030* (London: House of Common, inquiry - oral evidence submitted on 10th September 2018)
<https://publications.parliament.uk/pa/cm201719/cmselect/cmcomloc/1010/1010.pdf>
- ¹⁵ Bill Grimsey, The Grimsey Review 2: "It's time to reshape our town centres."
<http://www.vanishinghighstreet.com/wp-content/uploads/2018/07/GrimseyReview2.pdf>
- ¹⁶ Julian Dobson, *How to save our town centres* (Bristol: Policy Press, 2015)
- ¹⁷ Royal Institute of British Architects, *Silver Lining silver*, (London: RIBA, 2013).
- ¹⁸ World Health Organisation, *Ottawa Charter for Health Promotion*, (WHO, 1986).
<https://www.who.int/healthpromotion/conferences/previous/ottawa/en/>
- ¹⁹ Aaron Antonovsky, *Health, stress, and coping* (New York: Jossey-Bass, 1979)
- ²⁰ Aaron Antonovsky, *Unraveling the mystery health: How people manage stress and stay well* (New York: Jossey-Bass, 1987)
- ²¹ Lucille Nahemow and Powell M. Lawton, *Toward an ecological theory of adaptation and aging*. Environmental Design Research: Selected papers, 1, 24. (Dowden, Hutchinson and Ross, 1973)
- ²² Graham D. Rowles, *Prisoners of space?: Exploring the geographical experience of older people* (Boulder, CO: Westview Press, 1978).
- ²³ Judith Phillips et al., "How do unfamiliar environments convey meaning to older people? Urban dimensions of placelessness and attachment". International Journal of Ageing and Later Life, 6(2) (2011), 73–102.
- ²⁴ Ann Bowling, "Lay theories of quality of life in older age". Ageing and Society, 27(06), (2007) 827–848.
- ²⁵ Susanne Nordbakke and Tim Schwanen, "Well-being and mobility: A theoretical framework and literature review focusing on older people". Mobilities, 9(1), (2014), 104–129.
- ²⁶ City of Edinburgh Council. *Local Development Plan* (CEC, 2016).
<https://www.edinburgh.gov.uk/localdevelopmentplan>
- ²⁷ Katherine Brookfield et al., *The Uncommon Impact of Common Environmental Details on Walking in Older Adults*. International Journal of Environmental Research and Public Health, 14(2) (2017)

- ²⁸ Jelle Van Cauwenberg et al., “Environmental factors influencing older adults’ walking for transportation: a study using walk-along interviews”. *Int J Behav Nutr Phys Act*, 9(1), (2012), 85.
- ²⁹ James Evans and Phil Jones, “The walking interview: Methodology, mobility and place”. *Applied Geography*, 31(2), (2011), 849–858.
- ³⁰ Virginia Braun and Victoria Clarke, “*Thematic analysis*” In *APA handbook of research methods in psychology* (Vol. 2, pp. 57 – 71), edited by H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher, (APA, American Psychological Association, 2012)
- ³¹ Antonovsky, 1987, p.16
- ³² Lynn H. Lofland, *The public realm: Exploring the city’s quintessential social territory* (New York: Aldine De Gruyter, 1998)
- ³³ Lofland
- ³⁴ Kevin Lynch, K., *The image of the city* (Cambridge, M: MIT press, 1960)
- ³⁵ Antonovsky, 1987, p.17
- ³⁶ Antonovsky, 1987, p.18
- ³⁷ Gernot Böhme, *The aesthetics of atmospheres* (London: Routledge, 2016)
- ³⁸ Lofland
- ³⁹ Peter Laslett, *A Fresh Map of Life. The emergency of the Third Age*, (London: Weidenfeld and Nicolson, 1991).
- ⁴⁰ Tina Buffel, T. Chris Phillipson, “A manifesto for the age-friendly movement: Developing a new urban agenda. *Journal of aging & social policy*”, 30(2), (2018),173–192.
- ⁴¹ “Spaces for people”, the City of Edinburgh Council, accessed January 10, 2022
<https://www.edinburgh.gov.uk/spaces-people-1>
- ⁴² TTROs, the City of Edinburgh Council, accessed January 10, 2022
<https://www.edinburgh.gov.uk/roads-pavements/view-comment-traffic-orders-new/2?documentId=12973&categoryId=20089>
- ⁴³ “What you told us”, the City of Edinburgh Council, accessed January 10, 2022
<https://www.edinburgh.gov.uk/spaces-people-1/spaces-people-moving-forward-1/3?documentId=13143&categoryId=20299>
- ⁴⁴ “Spaces for People Market Research”, the City of Edinburgh Council, accessed January 10, 2022
<https://www.edinburgh.gov.uk/downloads/file/29531/spaces-for-people-market-research-outcomes-summary>

BIBLIOGRAPHY

- Alexander, Christopher, *A pattern language: towns, buildings, construction*. Oxford University Press, 1977.
- Antonovsky, Aaron, *Health, stress, and coping*. New York: Jossey-Bass, 1979.
- Antonovsky, Aaron, *Unraveling the mystery health: How people manage stress and stay well*. New York: Jossey-Bass, 1987.
- Böhme, Gernot, *The aesthetics of atmospheres*. London: Routledge, 2016.
- Bowling, Anna et al., “Lay theories of quality of life in older age”. *Ageing and Society*, 27(06), (2007) 827–848.
- Braun, Virginia and Victoria Clarke, “*Thematic analysis*” In *APA handbook of research methods in psychology* (Vol. 2, pp. 57 – 71), edited by Harris Cooper, Paul M. Camic, David L. Long, Abigail T. Panter, David Rindskopf, & Kenneth J. Sher, (APA, American Psychological Association, 2012)
- Brookfield, Katherine, et al., “The Uncommon Impact of Common Environmental Details on Walking in Older Adults”. *International Journal of Environmental Research and Public Health*, 14(2) (2017)
- Buffel, Tina and Christopher Phillipson, “A manifesto for the age-friendly movement: Developing a new urban agenda. *Journal of aging & social policy*”, 30(2), (2018),173–192.
- Carmona, Matthew et al., *Public places, Urban spaces*. London: Routledge, 2003.
- City of Edinburgh Council. *Local Development Plan*. CEC, 2016.
<https://www.edinburgh.gov.uk/localdevelopmentplan>
- City of Edinburgh Council, “Spaces for people”, accessed January 10, 2022.
<https://www.edinburgh.gov.uk/spaces-people-1>
- City of Edinburgh Council, “Spaces for People Market Research”, accessed January 10, 2022
<https://www.edinburgh.gov.uk/downloads/file/29531/spaces-for-people-market-research-outcomes-summary>
- City of Edinburgh Council, TTROs, accessed January 10, 2022

- <https://www.edinburgh.gov.uk/roads-pavements/view-comment-traffic-orders-new/2?documentId=12973&categoryId=20089>
- Coca-Stefaniak, J. Andres et al., *High Streets and Town Centres in 2030*. London: House of Common, inquiry - oral evidence submitted on 10th September 2018.
- <https://publications.parliament.uk/pa/cm201719/cmselect/cmcomloc/1010/1010.pdf>
- Dobson Jullian, *How to save our town centres*. Bristol: Policy Press, 2015.
- Evans, James and Phil Jones, "The walking interview: Methodology, mobility and place". *Applied Geography*, 31(2), (2011), 849–858.
- Griffiths, Sam et al., "The Sustainable Suburban High Street: A Review of Themes and Approaches", *Geography Compass*, 2(4), 1155–1188.
- Grimsey, Bill, The Grimsey Review 2: "It's time to reshape our town centres."
- <http://www.vanishinghighstreet.com/wp-content/uploads/2018/07/GrimseyReview2.pdf>
- Handler, Sophie, "Alternative age-friendly initiatives: redefining age-friendly design", in *Age-Friendly Cities and Communities: A Global Perspective*, ed. Buffel T., S. Handler, and C. Phillipson, 211–230. Bristol: Policy Press, 2018,.
- Jones, Phil et al., *Rediscovering mixed-use streets: the contribution of local high streets to sustainable communities*, p. xi. Bristol: Policy Press and Joseph Rowntree Foundation, 2007.
- Laslett, Peter, *A Fresh Map of Life. The emergency of the Third Age*. London: Weidenfeld and Nicolson, 1991.
- Lofland, Lyn H., *The public realm: Exploring the city's quintessential social territory*. New York: Aldine De Gruyter, 1998.
- Lynch, Kevin, *The image of the city*. Cambridge, M: MIT press, 1960.
- Mackett, Roger L. et al., *Improving Access in St Albans – Report on a Consultation Exercise*. UCL, Centre for Transport Studies, AUNT-SUE Consortium, 2011.
- <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.615.6931&rep=rep1&type=pdf>
- Nahemow, Lucille and Powell M. Lawton, *Toward an ecological theory of adaptation and aging*. Environmental Design Research: Selected papers, 1, 24. Stroudsburg, Pa.: Dowden, Hutchinson and Ross, 1973.
- National Record of Scotland (NRS, 2020). Retrieved January 2022
- <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-projections/sub-national-population-projections/2018-based>
- Nordbakke, Susanne and Tim Schwanen, "Well-being and mobility: A theoretical framework and literature review focusing on older people". *Mobilities*, 9(1), (2014), 104–129.
- Phillips, Judith et al., "How do unfamiliar environments convey meaning to older people? Urban dimensions of placelessness and attachment." *International Journal of Ageing and Later Life*, 6(2) (2011), 73–102.
- Office National Statistics. ONS, 2011. Retrieved January 2022,
- <https://www.ons.gov.uk/>
- Office National Statistics. ONS, 2018. Retrieved January 2022,
- <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/subnationalpopulationprojectionsforengland/2018based>
- Rowles, Graham D., *Prisoners of space?: Exploring the geographical experience of older people*. Boulder, CO: Westview Press, 1978.
- Royal Institute of British Architects, *Silver Lining silver*. London: RIBA, 2013.
- Royal Society for Public Health, *Health on the high street*. RSPH, 2015.
- <https://www.rsph.org.uk/our-work/campaigns/health-on-the-high-street/2015.html>
- Van Cauwenberg, Jelle et al., "Environmental factors influencing older adults' walking for transportation: a study using walk-along interviews". *Int J Behav Nutr Phys Act*, 9(1), (2012), 85.
- World Health Organisation, *Ottawa Charter for Health Promotion*. Geneva: WHO, 1986.
- <https://www.who.int/healthpromotion/conferences/previous/ottawa/en/>
- World Health Organisation, *Global age-friendly cities: A guide*. World Health Organisation. Geneva: WHO, 2007.
- https://www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf
- Wrigley, Neil et al., "High street performance and evolution: a brief guide to the evidence". University of Southampton, (2014) doi:10.13140/2.1.3587.9041