Older people's well-being affordances at the local High Street: A study of local Town Centres in Edinburgh.

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Abstract

"Ageing in place" seems to be the most preferred (and potentially also economically sound) option for growing old in UK. For many older people it is the chance to be connected to the community and participate in local civic and social life. In the UK, local 'high streets' provide an opportunity to support ageing-in-place, as a setting to access amenities and services and a focal point for community and social participation. Not surprisingly a recent report by the Royal Institute of British Architects Age (RIBA 2013) suggested that "*the British High Street in* 2030" might be a hub of social and economic activity, "invigorated" by an active Third Age. However there has been little attempt to articulate this within the everyday lives of older adults. As a result, we have limited understanding of how 'high streets' can be designed to better support them.

The paper reports on the piloting of a theoretical framework, by means of walking interviews combined with personal mapping and activity diary. Away from more functional models of ageing in place, a different approach is here proposed, which looks at the positive health-promoting features of the public realm of local High Streets that support experiential, subjective well-being amongst older adults. The paper describes an ecological and *"salutogenic*" interpretive framework to people-urban public realm interaction, adapted from medical sociologist Aaron Antonovsky's Sense of Coherence (SOC) construct (Antonovsky 1993b). SOC's three main categories - comprehensibility, manageability and meaningfulness - frame older people's interaction within the public realm of the local High Street. The links between SOC and the emotional, social, cultural and physical opportunities or "resources" that these locales may offer to older people are then highlighted by considering the High Streets as a landscape of well-being affordances. The paper concludes by suggesting that the "salutogenic" framework is a useful tool for exploring older adults's well-being in relation to the public realm.

The public realm of High Streets

Recent research on the liveability of North American "Main Streets" demonstrated how they no longer cater just for commercial activities but also as social hubs (Mehta 2013). Within UK their equivalent, the local High Streets or Town Centres as they're called in Edinburgh, are the places where most informal social interaction was and still is conducted. Traditionally high streets were a focus of activity in towns and cities due to their "dual function as 'links' in a movement system that connects places and as destinations, or 'places', in their own right' (Jones et al. 2007, p.xi). It is this "place" function that may offer opportunities to support the well-being of older adults. Outlining a mutually supportive scenario in which High Streets and Older People are at play, "the British High Street in 2030" (RIBA 2013) becomes a hub of social and economic activity where the "place" function is therefore prevailing. In a recent study on London local High Streets, Griffiths et al. (2008, p.16) define them "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, i.e. the elderly among others. The local High Street is considered in this paper as a spatial frame for older people and well-being, and more in particular its Public Realm, whose definition, albeit not unequivocal (Madanipour 2003), may refer both to the public space of the street but also to the publicly accessible facilities and shops. Similar to the famous 1748 Nolli's plan of Rome (Madanipour 2003), where all public accessible outdoor and indoor spaces were represented as a continuum, Public Realm is where "all the parts of the urban fabric to which the public have physical and visual access" and where "the greatest amount of human contact and interaction takes place" Tibbalds (2012, p.1).

Well-being and the built environment

Research on well-being is predominantly focused on the "content" or psychological origins of well-being, rather than on the "context" (Fave et al. 2011). Developments from positive psychology have contributed to understanding the psychological mechanisms that foster well-being through two principal dimensions: eudaimonic well-being related to the actualization of one's potential (Ryff 1989), and hedonic well-being, related to the "positive state of mind" or the "pleasantness" of emotional life (Kahneman et al. 1999). Both eudaimonic and hedonic dimensions of well-being are linked to everyday life and perceptions of the built environment and they give some analytical insight into how well-being is an outcome of person-environment interaction. The eudaimonic dimension is for example embedded in everyday activities and "lifestyle" (Steger et al. 2008), grounded on "*eudaimonic behaviours*", and in social connectedness (Ong & Bergeman 2010); the latter is also linked to positive emotions that relates both

to emotional attachment to place (Atkinson et al. 2012), and to the aesthetic, "sensorial", experience of the environment (Cold 2001), or the experiential and existential dimensions of residential environments (Day 2008).

A "behavioural approach to space" (Madanipour 1996) recognizing the relevance of subjective engagement with the built environment that "has emerged strongly in research planning in contrast to existing convention of describing and assessing environment through objective measures" (Atkinson et al. 2012, p.6). Older people's well-being is understood in this paper as being "grounded on the complexities of older people's everyday experiences", so as to cross "the boundaries between academic disciplines and traditions and unite the physical, psychological and social realms of wellbeing and the self" [(Bowling 2005)cited by (Ziegler & Schwanen 2011, p.746)] Older people's perceptions of the "things" that give their lives quality, and their underlying reasons correspond to what (Bowling & Gabriel 2007) defined as "lay perceptions" of well-being which correspond to themes emerging from research conducted with older people (Bowling 2005). Similarly in the pilot for a larger study here described, lay perceptions of well-being n this pilot for a larger study, ground-up research elicited lay perceptions of well-being that emerge from a

Well-being and Salutogenesis

Within people-built environment literature the "salutogenic" concept has been frequently used as an overall theoretical reference (Völker & Kistemann 2011), and in its etymological meaning (Ward Thompson 2013) in relation to those environments that "create health", i.e. afford better physical conditions like air quality or the presence of green spaces. In line with previous studies on indoor spaces (Golembiewski 2012; Golembiewski 2010), this research proposes a translation to the urban environment of the "salutogenesis" theory, as originally developed by medical sociologist Aaron Antonovsky (1979). Central to this theory is the idea that life contains a number of threats to health and well-being. "*Tension*" is immanent in our life, and our ability to manage it is what situates us on the "ease/dis-ease continuum". People keep themselves healthy leaning on resources, defined as "General Resistance Resources", (GRRs)(Antonovsky 1979). GRRs are an open and inclusive concept, framed by the socio, cultural and historical context in which life is lived and resources are available. They can be described as personal assets like education, financial resources and lifestyle in general, but also features of the physical environment, such as housing and workplace quality, and neighborhood space, as well as resources to be found within the social environment, e.g. family, friends and social network. Having access to GRRs is nevertheless not enough for managing tensions and overcoming stressful situations. Antonovsky acknowledged that what makes possible the use of resources and to remain healthy is the Sense of Coeherence (SOC), a "global orientation that expresses the extent to which one has a pervasire,

enduring though dynamic feeling of confidence that one's internal and external environments are predictable and that there is a high probability that things will work out as well as can reasonably be expected' (Antonovsky 1979, p.123)

The SOC is not a personal trait, but is a dispositional orientation to the specific context of culture and society (Antonovsky 1987) and while mainly shaped from childhood to young adulthood, is also valid for older people (Antonovsky 1993) . The SOC is not a "well-being construct". However the human features it embraces such as the pursuit of goals and the search for meaning in life events are coherent with an "eudaimonic" approach to well-being (Fave et al. 2011) and even to more specific constructs such as Ryff (1989) Psychological Well-being. The "salutogenesis" theory and the SOC locate the focus of health and well-being creation less on the individual and more on the societal context and therefore away from dominant neo-liberal ageing models (Katz, 2009) that situate health and success within the personal sphere. The link with the public realm is therefore significant as it is the same social context framing health creation that determines the material conditions of production and use of the built environment. Antonovsky always stressed the relevance of the impact of society and social conditions on people's health and well-being. For him the responsibility in moving to the health end of the "*ease/dis-ease continuum*" is not one's personal choice but it resides in the interplay of the individual and society, and as such is very much a collective endeavour.

SOC is broken down into three main constructs - comprehensibility, manageability and meaningfulness - that resonate with similar concepts in urban design, as in fact they "*reflect the interactions of an individual with the environment*" (Naaldenberg et al. 2012, p.713). The close link between GRRs and SOC makes it possible to think of supportive environments whenever their resources are meaningful, comprehensible and manageable and therefore foster the Sense of Coherence (SOC) (Antonovsky 1996)(Eriksson & Lindström 2007). In this study the SOC and its breakdown constructs, helps in framing an interpretive approach to older people's experience of the environment in order to assess how the latter may contribute to subjective well-being. They are adopted as a proxy between the local High Street, and health and well-being as elicited through people's behaviours and feelings.

Comprehensibility, manageability, and meaningfulness of the Public Realm

Comprehensibility can be considered as a matter of spatial cognition which resonates with wayfinding issues and related urban design concepts such as imageability and legibility. Comprehensibility has also to do with some of the qualities a successful place should embody like being distinctive and easy to move around (Gehl & Svarr 2013). Familiarity, distinctiveness, accessibility, comfort and safety, besides legibility, contribute to make the environment age- and also dementia-friendly (Burton & Mitchell (2006). Not surprisingly therefore, the extent to which one is capable of finding his/her way in the environment, to comprehend it, is directly related to his/her well-being (Lynch 1960). Antonovsky warned us however that comprehensibility can also have a flipside: "for someone who saw everything as comprehensible, boredom would become a profound stressor, likely to erode the sense of meaningfulness" (Antonovsky 1987, p.25). Daniel Geller (Geller 1980) and more recently Gabriel Moser (2012), pointed out how people also have a need for complexity, novelty, excitement and exploration within the urban environment. Rapoport & Kantor (1967) discussed the value attached to complexity and ambiguity in the built environment and linked them to its aesthetic appreciation. Later Lynch (1984) also related surprise to ambiguity and mystery in the urban environment. He pointed out that enjoyment was linked to a sense of "internal security" resonating with Antonovsky's Sense of Coeherence. Pleasurability is also linked to imageability (Mehta 2014) bringing back the focus on (older) people experience and to the emotional impact of the environment, connected with the meaningfulness dimension of the salutogenic model discussed later.

Manageability may translate to the urban environment through three main strands: as related to the experience of stress and the correspondent capacity to cope; in terms of availability of resources and the ability to make use of them; and finally as a perception of one's own capacity of being influential in shaping the environment. The experience of the urban environment as a whole has been often associated with the idea of environmental stressors, and the negative impact on mental health of stimuli "overload" (Milgram 1970), including overcrowding, traffic noise, and safety concerns in the struggle between anonymity and familiarity. The "overload" is an inevitable side-effect of the modern way of life leading to adaptive social and moral behaviours of urban citizens. However not everybody is equally affected by the urban environment. On the contrary suffering of underload in a too quiet setting may be equally stressful as of overload (Krupat 1985). High street are (or should be) lively places, and "going out and about" in such locales is a matter of personal choice. What might have been of Antonovsky's interest, and is central to this research, is in fact exploring how older people might engage with the environment outside the comfort zone of the person-environment fit.

Manageability as related to Local High Streets also brings into the discussion the availability of those services and facilities necessary for carrying out everyday life and therefore may raise issues of land use planning and management policies. Finding resources "*at one's disposal*" is at the core of the Antonovsky's concept and it is also inextricably linked to the perception of places. Golant (2014, p.9) refers to this aspects as the "*residential mastery zones*", places where people "*feel competent and in control of their life and surroundings*" and where they are able to perform their everyday activities. The instrumental value of the public realm suggests to record the resources available, including places and people, and the ways in which are used. It should be mentioned however that "usefulness", as fostering engagement and increasing frequency of use, translates into space-time routines that inevitably accrue to familiarity and place attachment (Mehta 2014, p.59) and therefore address meaningfulness as an important dimension.

Manageability understood as "being in control" might also shifts the focus to those opportunities for empowering people in making decisions to shape their environment. At a local level this can be articulated through the informal political dimension of community. The idea of community however should not necessarily be attached as in the past to a socio-spatial unit as there are both place-based communities and communities of interest (Madanipour 2003). Moreover, social change may also have an impact on the "models of aging" and the conception of community. It can be argued that "*impersonal*" High Streets more than the "*semi-public realm*" of neighbourhoods may still contribute in providing opportunities and spaces, both formal and informal, for "*an exploration of difference and identity*" and for an "*examination of the relationship between particular and general, personal and impersonal*" (Madanipour 2003, pp.206, 209).

Finally meaningfulness as related to the built environment echoes intuitively with a burgeoning literature (Lewicka 2011) on sense of place and place attachment theories. Antonovsky's construct refers to the general understanding and self-confidence in the pursuit of tasks and objectives, as well as to the expectations of emotional rewards that life experiences may provide. Rephrasing Antonovsky's words (Antonovsky 1987, p.18), being motivated to "go out and about" depends on how much the demands posed by the environment are welcome, and are seen as challenges worth investing energy in rather than burdens. This has to do with the cognitive processes that underpin familiarity (and therefore comprehensibility) and meaning of place as related to eudaimonic dimensions of well-being (Atkinson et al. 2012). It is also associated to affect and emotions in the experience of the urban environment, in particularly with reference to the experience "of the body in movement" (Miaux et al. 2010) as related to aesthetics and sensorial aspects of well-being.

Place meaning according to Mehta (2014) depends both on individual and collective experiences and it is usually built "*by the bonds and shared values created through perceptive experience*" (Smith et al. 2012). Attention to the process of place attachment has been reinforced by the work of James Gibson (1979). He challenged the traditional dualism between mind and body, between individual and environment opening to revision the person-place dichotomy in the process of creating meaning and place attachment. As social anthropologist Tim Ingold (2000, p.173) points out, "*it is through being inhabitated* [...] *that the world becomes a meaningful environment for people*" and therefore people-environment interaction resides on a perception of the environment that is always given through action (Ingold 1992). Indeed as Lewicka (2011, p.225) points out, research in cognitive psychology and neuroscience is demonstrating how sensory-motion is essential for human perception and that "*the meanings that things have for us are a product of our movements*". But "things" is too general term as it may refer to physical features and people as well. We should not forget that for the salutogenic model meaningfulness "*is developed on the basis of consistently friendly, open and accepting responses of significant others*" (Wiesmann & Hannich 2010) placing social interaction at the centre of the meaningful experience of places. Mehta (2014) also offers a definition of "meaningful place" as being supportive for activity and sociability, which fits into salutogenic model. As mentioned previously, according to Antonovsky a meaningful place is a "useful" place, i.e. one that is capable of satisfying "*basic needs, for shapping, eating, entertainment, and so on, and special needs to gather, display, express, discuss, debate, demand and protest*" (Mehta 2014, p.58). As this author suggests, not every meaningful place has to be sociable, however it is the social dimension of public space that according to the psychosocial salutogenic model may contribute to personal well-being.

Informal social activity has proved to be linked to life satisfaction and happiness and the latter to health and positive feelings. Pleasure, joy or delight are also partially achieved by observing other people (Shaftoe 2008, p.111) and therefore area a function of the opportunities the public realm affords to watch and encounter. Moreover happiness and the hedonic aspects of well-being are contingent and as such immersed in the unfolding experience of the environment (Ahmed 2008). The latter is achieved mostly through walking (and other pedestrian-like form of movement), when both our body and the environment are perceived. It is a multisensory and mundane experience that through habit induces "*sensori-value (aesthetic) judgements*" (Wunderlich 2008, p.128). Difficult to capture, emotions and feelings are however topics of contemporary burgeoning literature rooted in phenomenology, environmental psychology and in the ecology of perception.

The well-being affordances of the local High Street

Gibson's work bridges the historical gap in many disciplines between human beings seen as "organisms within systems of ecological relations" and as "persons within systems of social relations" Tim (Ingold 2000, p.3). His ontology sustains the recent convergence of perspective among ecological psychologists, cognitive scientists, philosophers and

neuroscientists on the "intimacy" of mind, body and the world (Good 2007). Recognizing this "intimacy" however does not help in explaining "the direction of any relationship between attractive environments (natural or otherwise), physical activity, mental health, social engagement and well-being" (Ward Thompson 2013, p.82) A second layer of analysis should therefore gather the specificities of the people/environment interactions from which well-being stems from. They can be material and non-material aspects of the environment, i.e. a pavement, a bench, a shed, a tree, a sound, a smell or a particular atmospheric condition, but also a shop or a facility; or a cashier in a supermarket, and social events and encounters. But once the transactional nature of people-environment is considered, something apparent in a nonreflective transaction, affordances (Gibson 1979), as a conceptual tool of analysis help in focusing on the transaction itself. An affordance has been defined as a relation between the ability to act of a person (or an animal) and certain aspects of the environment (Chemero 2003). They can be physical but also social, i.e. other people offering opportunity for interaction or help. They can also be emotional, i.e. specific locations that may provoke positive feelings, and they are actualized according to socio-cultural norms ("right" or "wrong" doings) (Kyttä et al. 2010). They are a relational concept of "possibilities of action"(Withagen et al. 2012) (Reed 1993), pointing "at both ways, to the environment and to the observer". Affordances offer a greater analytical perspective on the complexity of the environment, both in its material and social dimensions.

Recent research in the field of neuroscience, cognition and body responsiveness, (Rietveld et al. 2013) discloses how we are constantly switching between different types of affordances, in a so called "*landscape of affordances*" which is mainly characterised by the "*interrelatedness of the available affordances*". According to Rietveld & Bruineberg (2014) this "landscape" can be actually perceived from a phenomenological point of view, as "*a field with some solicitations standing out*" or, from a structural perspective and more in line with Gibson's original thought (Gibson 1979), as a "niche" of nested affordances.

The latter approach is perhaps more instrumental in urban design. Hence the High Street can be seen as a niche of affordances, or "*behavior setting*" (Mehta 2013), e.g. a socio-cultural milieu that "pre-structures" the affordances available and influences their actualization. Accordingly, the public realm of High Streets could be defined as a structure of "nested behaviour settings". For example, Oldenburg (1997) "third places" - restaurants, cafés and to some extent shops - are "behaviour settings" themselves but also part of the larger setting represented by the whole High Street. The same spatial articulation can be related to single or multidimensional affordances, like social encounters, possibilities of use or material and social "emotional affordances" (Roe & Aspinall 2011). At greater scale, the entire High Street as a whole in its sensorial perception (Adams 2014) could be a "niche". In recent

phenomenological and sensorial literature about urban space, this level of cognizance has been referred to as "atmosphere" (Thomas 2008; Griffero 2013) or "ambiance" (Thibaud 2002).

Methods. Mapping and walking interviews.

A pilot was conducted to test the theoretical framework above discussed exploring how the public realm of Leith Walk, one of the main local High Streets (local Town Centres as defined by the local plan) in the city of Edinburgh, is supportive for older people's well-being living in the community. It was conducted with two women G. And I., aged respectively 70 and 78, recruited through personal contacts, and interviewed in two stages. First, in a face-to-face session in a café in the area they were asked to fill in an activity diary and to trace on a map of the area the location of the spots referred to in the diary. Second, a walking interview was undertaken with both of them along the High Street, which was recorded and transcribed for thematic analysis. This data has also been enriched by field observation and behavioural mapping in the area. [see map of Leith Walk area at the end] During the pilot, the <u>activity diary</u> and mapping resulted in a constructive activity, both in terms of data elicited and as useful props as visual-elicitation for the interviews. The sheets provide quite an accurate view of weekly and daily visits local High Streets and shopping centres and of the main modes of transportation. As (I) says during the walk interview with reference to "going out and about", it is a matter of "*Just* [see] *few things for a wee change*". Both interviewees also agree, commenting on their activity diaries and city wide maps, that they really enjoy urban life. They couldn't live in the country, and they rather enjoy the liveliness of the urban environment.

The <u>personal mapping</u> carried out with L, who lives in the Leith Walk area, was focused on locating on the map the most important spots of weekly activity, like shopping and personal care (hairdresser, nail bar), GP, family (daughter). It also allowed to trace the most frequent itineraries in the area, most of them on foot but also combined with bus as in the case of the Leith library [see map]. The interviewee was quite surprised at the end of the process to see her daily movement patterns annotated on a map. She also commented, as it became evident on the map, that she has not a preferred path to walk when she needs to get to the Walk.

The <u>walking interview</u> lasted in total one hour. Photographs were taken along the walk to document the salient features of place commented on by the interview participant.

Preliminary findings.

Comprehensibility: Walking, wayfinding and routes [see map for reference to streets and places]

The interviewee who lives close to the foot of Eastern rd. says that she basically comes up to the Top of the Walk by bus and that she might walk up here only if it is a nice day. She walks around smoothly, she knows perfectly well all the place, even so she can appreciate some views, like when crossing London road: *"That's a nice view...St James is there"*. Side streets crossing does not seem to be a concern for them although they complain that *"Sometimes it takes ages to change"* referring to traffic lights and pedestrian crossing. Even so, (I) recognises that she tends to use just one (eastern) side of the street: *"I usually walk on this side of the road. It just depends..I just come out from this side and walk up"*. Whether this is due also to the size and traffic intensity of the street, to the variety of shops and amenities on each side, or simply because of habit is not clear but possibly a combination of all factors. She walks mostly in the central and northern segment of Leith Walk. Her paths are embedded in her daily routines. She acknowledges in fact that she usually walks from home to the Leith Walk picking different, shortest routes according to the final destination. However, she's also aware that occasionally she enjoys changing itinerary for its own sake.

Manageability: Functional use

The lady who does not live in the area said that she only visits Leith Walk if she has a purpose, like going to a specific shop. The other participant, who lives in the area, uses the central segment and the Foot of the Walk quite often for her errands albeit she basically does not do anymore the shopping in traditional or local shops. Now she prefers to "go to one place where you buy everything [...] where you're sure everything is fresh". (I) refers to shopping center where she goes by car every Sundays with her daughter for the main shopping. Another superstore in Duke st. Which has (G) "no cafe", is used by (I.) "Just [for] small shopping...anything I've forgot I pick up". Other comments about the "manageability" of the area come out during the conversation. (I) said: "Doctor's across the road there for me there..nice [because of the flowers] and handy" and "Handy for the buses here..there are quite bus stops ...all the buses go in them" [Leith stop, opposite Casselbank st.]. Urban change may also impact manageability for example when referring to the Water Centre which is now closed: I.: "It's a shame because it was good...it was handy".

Meaningfulness: Social interaction

Informal interaction in shops seems to be much less frequent now as compared to the past. Still it is a component of visiting on a weekly basis the "functional" spots located in the personal mapping, basically the Hairdresser, the Nails bar and the two public libraries. Wellbeing affordances in this case were for (I.) the whole area as built in her "sense of place", "her home", and nested in it the places she visits on a weekly basis, like the Hairdresser and Nails bar. While visiting her daughter is also a weekly routine for her, usually on Mondays, no other social affordances were mentioned, beside casual encounters that we did not have the opportunity to record. Asked if they lose informal interaction by not shopping any longer in local stores, they said that they usually chat with supermarket cashiers. (I.) said that she usually bumps into 4 or 5 acquaintances during her walks in the High Street. Unfortunately during the interview we did not came across anybody. Once we reached the end of Leith Walk, (I) remarked quite surprised: "We came all the way down Leith Walk ...and I haven't met anybody yet.

Meaningfulness: Perception of the environment and memories of the area

Along the walk both interviewees seem not to be annoyed by the traffic and the noise. When prompted about it, they rather say "busy" than noisy. As they mentioned before walking, they both enjoy "urban life" and lively places. *"I couldn't think anything worse than being stuck in the house and not being able to go out*" and "..*or taken away the bus pass*!". Independence and control of own life outside home emerge here as a strong component of meaningfulness of life. (I) overall does not seem to be concerned in excess by urban change, on the contrary, she dislikes when buildings or land remain empty. She appreciated the new Youth Hostel as an improvement in the area because it occupied an empty building that was an "eyesore".

For both of them the southern part of Leith Walk has always been a place for dining and meeting up, easily accessible by bus. A private home where a former friend used to live, raises "happy memories". (*G*): "We had nice times in that house", "We did had very happy times in this area". "On a Monday night we went to the Lantern restaurant, top of the Leith Walk and then to the Casino.

Several "nice" and "lovely" shops were also spotted along the walk while enjoying "window shopping". A group of houses apparently empty also attracted their attention: "You wonder if anybody stays in these houses right now...used to be the ones who had money". Overall (I) is aware that she's been living most of her life in the area. She does not have strong feelings of place attachment, "nothing really enjoyable". As the other lady, (G) points out during the conversation: "it's home for you". To which (I) replied "So I'm sort of being in the area all the time"... "feel all right" although she also remarked that "I'm never out at night very often so I don't know how night life would be".

Conclusion

The three main categories adopted, comprehensibility, manageability and meaningfulness seems to provide a useful framework for articulating the landscape of well-being affordances emerging from the interviews and field observation. Comprehensibility was in this case largely due to a high degree of familiarity with the environment basically due to the fact that the interviewee has spent most of her life in the area. Manageability too with regard

to functional aspects was also evident, even if limited to certain activities and less to shopping. Meaningfulness

was largely due to a strong "sense of place", again due to the long established patterns of daily life.

References

- Adams, M., 2014. Quality of Urban Spaces and Wellbeing. In Rachel Cooper and Elizabeth Burton and Cary L. Cooper., ed. *Wellbeing and the Environment: Wellbeing: A Complete Reference Guide,*. Wiley Online Library.
- Ahmed, S., 2008. Sociable happiness. *Emotion, Space and Society*, 1(1), pp.10–13.
- Antonovsky, A., 1979. Health, stress, and coping.
- Antonovsky, A., 1993. The salutogenic approach to ageing. Available at: http://www.angelfire.com/ok/soc/a-berkeley.html.
- Antonovsky, A., 1996. The salutogenic model as a theory to guide health promotion. *Health promotion international*, 11(1), pp.11–18.
- Antonovsky, A., 1987. Unraveling the mistery health: How people manage stress and stay well.

Atkinson, S., Fuller, S. & Painter, J., 2012. Wellbeing and place, Ashgate Publishing.

Bowling, A., 2005. Ageing well: Quality of life in old age, McGraw-Hill International.

Bowling, A. & Gabriel, Z., 2007. Lay theories of quality of life in older age. Ageing and Society, 27(06), pp.827-848.

Burton, E.A. & Mitchell, L., 2006. Inclusive urban design: Streets for life, Access Online via Elsevier.

Chemero, A., 2003. An outline of a theory of affordances. *Ecological psychology*, 15(2), pp.181–195.

- Cold, B., 2001. Aesthetics, Well-being, and Health: Essays Within Architecture and Environmental Aesthetics, Ashgate.
- Day, R., 2008. Local environments and older people's health: dimensions from a comparative qualitative study in Scotland. *Health* \& Place, 14(2), pp.299–312.
- Eriksson, M. & Lindström, B., 2007. Antonovsky's sense of coherence scale and its relation with quality of life: a systematic review. *Journal of epidemiology and community health*, 61(11), pp.938–944.
- Fave, A.D. et al., 2011. The eudaimonic and hedonic components of happiness: Qualitative and quantitative findings. *Social Indicators Research*, 100(2), pp.185–207.
- Geller, D.M., 1980. Responses to urban stimuli: A balanced approach. Journal of Social Issues, 36(3), pp.86–100.
- Gibson, J.J., 1979. The ecological approach to visual perception, Psychology Press.
- Golant, S.M., 2014. Age-Friendly Communities. Are We Expecting Too Much? Insight IRPP, (5).
- Golembiewski, J., 2012. Salutogenic design: The neural basis for health promoting environments. *World Health Design Scientific Review*, 5(4), pp.62–68.
- Golembiewski, J.A., 2010. Start making sense: applying a salutogenic model to architectural design for psychiatric care. *Facilities*, 28(3/4), pp.100–117.

- Good, J.M., 2007. The affordances for social psychology of the ecological approach to social knowing. *Theory* \& *Psychology*, 17(2), pp.265–295.
- Griffero, T., 2013. The atmospheric "skin" of the city. Ambiances. , pp.2-14.
- Griffiths, S. et al., 2008. The sustainable suburban high street: a review of themes and approaches. *Geography Compass*, 2(4), pp.1155–1188.
- Ingold, T., 1992. Culture and the perception of the environment. In Croll, Elisabeth and Parkin, David, ed. Bush base, forest farm: Culture, environment, and development. Routledge, pp. 39-56.
- Ingold, T., 2000. The perception of the environment: essays on livelihood, dwelling and skill, Psychology Press.
- Jones, P., Roberts, M. & Morris, L., 2007. Rediscovering mixed-use streets: the contribution of local high streets to sustainable communities, Policy Press in association with the Joseph Rowntree Foundation.
- Kahneman, D., Diener, E. & Schwarz, N., 1999. Well-being: Foundations of hedonic psychology, Russell Sage Foundation.
- Krupat, E., 1985. People in cities: The urban environment and its effects, Cambridge University Press.
- Kyttä, M., Kahila, M. & Broberg, A., 2010. Perceived environmental quality as an input to urban infill policymaking. Urban Design International, 16(1), pp.19–35.
- Lewicka, M., 2011. Place attachment: How far have we come in the last 40 years? *Journal of Environmental Psychology*, 31(3), pp.207–230.
- Lynch, K., 1984. Reconsidering the image of the city, Springer.
- Lynch, K., 1960. The image of the city, MIT.
- Madanipour, A., 1996. Design of urban space: An inquiry into a socio-spatial process, Wiley Chichester.
- Madanipour, A., 2003. Public and private spaces of the city, Routledge.
- Mehta, V., 2014. Evaluating Public Space. Journal of Urban Design, 19(1), pp.53-88.
- Mehta, V., 2013. The street: a quintessential social public space, Routledge.
- Miaux, S. et al., 2010. Making the narrative walk-in-real-time methodology relevant for public health intervention: Towards an integrative approach. *Health \& place*, 16(6), pp.1166–1173.
- Milgram, S., 1970. The experience of living in cities. Science, 167, pp.1461–1468.
- Moser, G., 2012. Cities. In Clayton, Susan D, ed. The Oxford Handbook of Environmental and Conservation Psychology. Oxford University Press, pp. 203–220.
- Naaldenberg, J. et al., 2012. Aging Populations' Everyday Life Perspectives on Healthy Aging New Insights for Policy and Strategies at the Local Level. *Journal of Applied Gerontology*, 31(6), pp.711–733.
- Oldenburg, R., 1997. The great good place: Cafes, coffee shops, bookstores, bars, hair salons, and other hangouts at the heart of a community, Da Capo Press.
- Ong, A.D. & Bergeman, C., 2010. The socioemotional basis of resilience in later life. *New frontiers in resilient aging: Life-strengths and well-being in late life*, pp.239–257.

- Rapoport, A. & Kantor, R.E., 1967. Complexity and ambiguity in environmental design. *Journal of the American Institute of Planners*, 33(4), pp.210–221.
- Reed, E.S., 1993. The intention to use a specific affordance: A conceptual framework for psychology. *Development* in context: Acting and thinking in specific environments, pp.45–76.
- RIBA, 2013. Silver linings. The active third age and the future of the city.
- Rietveld, E. & Bruineberg, J., 2014. Self-organization, free energy minimization, and optimal grip on a field of affordances. *Frontiers in human neuroscience*.
- Rietveld, E., De Haan, S. & Denys, D., 2013. Social affordances in context: What is it that we are bodily responsive to? *Behavioral and Brain Sciences*, 36(04), pp.436–436.
- Roe, J. & Aspinall, P., 2011. The emotional affordances of forest settings: an investigation in boys with extreme behavioural problems. *Landscape Research*, 36(5), pp.535–552.
- Ryff, C.D., 1989. Happiness is everything, or is it? Explorations on the meaning of psychological well-being. Journal of personality and social psychology, 57(6), p.1069.
- Shaftoe, H., 2008. Convivial urban spaces. Earthscan: United Kingdom and United States of America.
- Smith, H., Soledad Garcia Ferrari, M. & others, 2012. Waterfront Regeneration.
- Steger, M.F., Kashdan, T.B. & Oishi, S., 2008. Being good by doing good: Daily eudaimonic activity and wellbeing. *Journal of Research in Personality*, 42(1), pp.22–42.
- Thibaud, J.-P., 2002. From situated perception to urban ambiences. In *First international Workshop on Architectural* and Urban Ambient Environment.
- Thomas, R., 2008. The power exerted by urban atmosphere over our choice of walk. *Barcelona Walk 21. Barcelone*, 8-10 octobre 2008 [CD-ROM].
- Tibbalds, F., 2012. Making people-friendly towns: Improving the public environment in towns and cities, Taylor & Francis.
- Völker, S. & Kistemann, T., 2011. The impact of blue space on human health and well-being-Salutogenetic health effects of inland surface waters: A review. *International journal of hygiene and environmental health*, 214(6), pp.449–460.
- Ward Thompson, C., 2013. Activity, exercise and the planning and design of outdoor spaces. *Journal of Environmental Psychology*, 34, pp.79–96.
- Wiesmann, U. & Hannich, H.-J., 2010. A salutogenic analysis of healthy aging in active elderly persons. Research on Aging, 32(3), pp.349–371.
- Withagen, R. et al., 2012. Affordances can invite behavior: Reconsidering the relationship between affordances and agency. *New Ideas in Psychology*, 30(2), pp.250–258.
- Wunderlich, F.M., 2008. Walking and rhythmicity: Sensing urban space. Journal of Urban Design, 13(1), pp.125-139.
- Ziegler, F. & Schwanen, T., 2011. "I like to go out to be energised by different people": an exploratory analysis of mobility and wellbeing in later life. *Ageing and Society*, 31(05), pp.758–781.



