

# Ageing well in place: associating functional and affective dimensions of older people's home

Gwendoline Schaff<sup>1</sup>, Catherine Elsen<sup>2</sup>, Ann Petermans<sup>3</sup>, Jan Vanrie<sup>3</sup>, Fabienne Courtejoie<sup>1</sup>

<sup>1</sup>TEAM 11 – Faculty of Architecture – University of Liège, Liège, Belgium

<sup>2</sup>LUCID – Faculty of Applied Sciences – University of Liège, Liège, Belgium

<sup>3</sup>ArcK – Faculty of Architecture and Arts – Hasselt University, Hasselt, Belgium

**ABSTRACT:** In front of the challenges that are brought about by the ageing of our population, it is a responsibility to all stakeholders in the field of architecture to consider today our housing of tomorrow. This article, focused on the topic of ageing in place and more specifically on housing adjustments favoring this process, attempts to clarify and assemble the existing literature, considering the topic at hand from three complementary viewpoints: the functional, the affective and the temporal dimension of feeling "at home". First, the functional dimension, which is closely linked to the architectural field, looks at different scales of housing interventions. Next, the affective dimension of the habitat is studied through the lenses of *home* and *subjective well-being*. These lenses enable us to assert the need to combine both the functional and affective dimensions of home in order to promote ageing well in place. Finally, the temporal dimension of the architectural intervention is discussed, in order to position these theoretical models while taking into account the constantly evolving context.

**KEYWORDS:** architecture; ageing in place; home; subjective well-being

## INTRODUCTION

In 2050, the number of people in the world over 80 will have tripled, and more than a third of the European population will be over 60 (United Nations 2015). This increase in life expectancy and the arrival of the *Baby Boom* generation in retirement impel our societies to examine the viability of the current senior housing systems (Grebott 2015).

Nowadays, the relevance of the hospital-centrist model is questioned: the first health center of a person is now considered to be his/her daily living place, which enables him/her to preserve autonomy and privacy (Beyeler 2014). Considering the Walloon territory (i.e., the southern part of Belgium, Western Europe), ageing in place indeed appears to be the preferred way of living while growing old(er), both from a governmental point-of-view as from older people's perspective (Gouvernement Wallon 2014). As confirmed by a recent study that questioned 2000 Belgians aged from 60 to 85, more than 80% of older people wish to continue living at home as long as possible (Fondation Roi Baudouin 2017).

In this perspective, in order to offer realistic, appropriate and long-term solutions, it is essential to think about how older people can live at home as long and as pleasantly as possible. This article considers this challenge by discussing it from three angles: the functional, the affective and the temporal dimension of the home.

## 1.0 HABITAT FUNCTIONALITY: VARIOUS SCALES OF INTERVENTION

Today, it is acknowledged that the increased probability of experiencing functional limitations with age requires reflections on home adaptability (Auger 2016). To be relevant, this functional reasoning must be carried out at different scales: from the location of the dwelling to the details of the interior design.

### 1.1. Residential location & housing division

First of all, it is necessary to consider the location of the house itself. This (re)location is function of its environment and accessibility. Indeed, the ease of access and the proximity of "supports" (Masson et al. 2015) have a considerable impact on certain life choices, as well as on the socialization of older people. Three elements stand out in the literature: the density of circulations (Bontron 2013), which strongly depends on the concerned environment (urban, semi-urban or rural); the presence of equipment nearby (Masson et al. 2015) for the common necessities (e.g. food and care); and the location of personal points of interest

(Gabriel and Bowling 2004) like for instance leisure areas, the location of family/relatives or places related to people's personal history.

Once the residential choice is made, and more particularly when people continue living in the current dwelling, housing division procedures may be undertaken. Indeed, when children leave the family home, the environment generally becomes too spacious. The housing then gradually turns into a burden, difficult and expensive to maintain. As confirmed by De Decker and Dewilde (2010), the Belgian housing stock in particular is old, poorly equipped and badly isolated, with areas too large for the seniors who occupy them. In such cases, it can be considered to transform the "classic" single-family house to a collective alternative. Such a re-organization of housing enables seniors to continue to live qualitatively "at home". Among these alternatives, one could list the "kangaroo home": an older person receives a family in his/her home that has become too big in exchange for financial contribution and/or everyday help (Berger 2013). "Intergenerational housing" with a student is based on the same principle as the kangaroo habitat but the student is alone (not with a family) and the period of stay will cease at the end of the study program (De Briey 2011). Another possibility is the "twin home": a small home for the older person is added to the house of a family member, or vice versa (Mormont 2015). And finally, the "grouped habitat", which requires a move, involves buying/renting a house/apartment with other individuals, seniors or not (Fontaine 2016). In this case, each inhabitant has private spaces and shares collective areas (Senoah 2016).

## 1.2. Internal spatial organization & design interventions

Focusing on the private habitat, it is generally admitted that the priority should be to re-design spaces left by the children, in order to facilitate maintenance (physically and/or economically) and re-appropriation (Auger 2016).

In addition, *accessibility* and *usability* concepts need to be taken into account (Fabre and Sahmi 2011). Indeed, older people are generally, over the years, faced with several physical, dexterity and cognitive difficulties; and, typically a lot of current older people's housing presents several obstacles that prevent them to evolve towards a process of *ageing well in place*. It is not uncommon for a person to be placed in an institution after a fall at home, caused by a badly designed staircase or unfitted bathroom equipment. Thus, housing should favor the most autonomous circulation and uses possible for a person (CSTC et al. 2006). A reduction and simplification of the trajectories are recommended, as well as particular attention to the dimensions and materials of passages. Moreover, ideally, level differences should be light or non-existent.

The positioning of furniture/equipment is also significant. In the horizontal plane, certain distances must be preserved around the equipment to maintain ease of access. In the vertical plane, view and use heights must take into account the sitting position: it is for example preferable to position all the equipment (handles, switches, etc.) between 0.90m (2.95ft) and 1.20m (3.93ft) from the ground (CSTC et al. 2006). In such case, even with gradually decreasing mobility, the person can continue to live relatively well at home.

In parallel, particular attention must be paid to the aesthetics and the "hygienist" connotation new pieces of furniture and equipment might have (Heywood 2005). Older people might perceive negatively some adaptations, because they refer to a medicalization of their home. The culture of home is then affected, which brings us to the considerable importance of the following issue: the habitat affectivity.

## 2.0. HABITAT AFFECTIVITY: FROM A HOUSE TO A HOME

From a pragmatic perspective, the functional interventions discussed above are necessary steps to enable *ageing in place*. However, they do not guarantee continued "quality of life": functional aspects are a support of the affective dimensions. This second, more subjective dimension explains the difference between "a house" and "a home". The house defines above all a material property with extrinsic dimensions. It identifies itself from its occupants, its location and its architectural form (Ségaud et al. 1998). Home has a much broader meaning: it does not boil down to the simple fact of lodging but enables personal development and establishes a veritable link between one's own identity and the spatiality (Bernard 2005). Therefore, to help a person feeling truly at home throughout his/her life, the dwelling must not only meet the person's physiological needs (through functionality), but also the person's specific expectations (through affectivity). This affectivity of the home is, in terms of literature, directly related to the subjective well-being (SWB) of the occupant, which reflects the experience and the feeling of the person in regard of his/her own life (Petermans and Pohlmeier 2014). As stated in Diener's original definition:

People experience abundant SWB when they feel many pleasant and few unpleasant emotions, when they are engaged in interesting activities, when they experience many pleasures and few pains, and when they are satisfied with their lives. (Diener 2000, 34)

The literature on the meaning of home, and especially Heywood's writings (Heywood 2005), enable us to group these affective dimensions into five main points defining home for the older people as place of: safety, daily activities, identity, sociality, and anchorage/articulation with the outside.

### 2.1. Place of safety

Home is a place where the resident feels safe, both from a physical as from a psychological perspective. The dwelling evokes the idea of shelter against the outside (environment and climatic conditions) (Bernard 2005) and provides protection from others (Cassaigne 2006). Thus, by establishing limits in space, a boundary between an inside and an outside is created. These limits can be flexible (vegetation, furniture), permanent (wall, partition) or transient, allowing control of the surroundings (window).

The social environment also has a significant impact on home security: the neighborhood, by its proximity and solidarity, generally provides social security (Smetcoren 2016). In addition, staying in the same dwelling for several years and having the same daily routines for a long time is reassuring for many people (Morin et al. 2009).

Finally, to provide a sense of complete security, home must also prevent falls and reduce potential hazards. Heywood points out the importance of the perception of a home as a safe place:

People described how, before adaptations, they had fallen or feared a fall. Many also described the terrible pain they endured, which again seemed to be an assault on the meaning of home as a place of security. [...] Adaptations which removed danger and reduced suffering were therefore not just preventing an accident or alleviating a condition but were additionally restoring to a house its power to be a home in this sense of a place of security. (Heywood 2005, 541)

## **2.2. Place of daily activities**

The habitat is strongly related to its daily and personal activities: the inhabitant must be able to realize the activities that he/she considers important. Two principles are essential in the realization of these occupations, and especially for older people: comfort and autonomy.

Comfort is associated with devices ensuring the well-being of the inhabitants, making life more pleasant (Morin et al. 2009). Two dimensions can thus be associated: a corporeal/physical dimension (comfort in shifting or at rest) and another, more symbolic dimension related to mental emotional well-being (Auger 2016).

The autonomy induces a freedom of action: the inhabitant must be able to go where he/she wants, and do what he/she wants. An inappropriate home prevents this autonomy: the presence of obstacles has then such an effect that some people end up associating their personal house with a prison (Heywood 2005). On the other hand, when home adaptation is adequate, the senior's independence increases and his/her need for assistance is reduced.

## **2.3. Place of identity**

The habitat is an extension of one's self (Cassaigne 2006). The interiority of the home is in fact linked to the personality of the person: the identity necessarily comprises dimensions of place and space which constitute, once assembled, the identity of place of the individual (Serfaty-Garzon 2003).

This affirmation of identity is expressed through the appropriation of spaces: each inhabitant personalizes the places according to a personal dynamic. Landmarks develop in connection with other personal elements, such as memories, life events, tastes, values, qualities and defects (Cassaigne 2006). This appropriation is particularly present in the housing of older people: elements have accumulated throughout their lives in their personal spaces and remind them of history and personal memory.

## **2.4. Place of sociality**

Home is a space where people can find a balance between the boundaries of their private and social/public life. Two situations stand out in this sociality: the temporary reception of others and the daily sharing of spaces.

Reception is deeply linked to the notion of threshold: the habitat provides the right to include/exclude people in its intimate sphere (Morin et al. 2009). The crossing of the housing threshold is then established differently according to the situation: the time/duration of the visit, the identity of the visitor and the purpose of the visit (Serfaty-Garzon and Condello 1989). These differentiations of relational frameworks allow the host to keep some control over the space. It is important that, in getting older, the inhabitant can continue to carry out this host role autonomously and that some rooms still allow to receive his/her family and relatives. Thus, housing may be a support for social development.

In addition to these visits, home can also be a place of daily sharing with other occupants. Spaces might be used and appropriated by several people (e.g. sacredness of family life), establishing a mutual respect. Adaptations in the habitat for the old days must induce favorable relationships between persons, particularly in the context of housing shared with other members than the family. It is also necessary not to neglect the importance of private spaces so that the shared spaces within the habitat remain sources of well-being (Heywood 2005).

## **2.5. Place of anchorage and articulation with the outside**

Home is a source of attachment for the inhabitants. The meaning one can attach to a home confirms that the dwelling is much more than a physical place. Often, the time lived in the home helps to develop a feeling of

belonging to the place and the neighborhood. In Belgium, this attachment is referred to by 84% of older people (Fondation Roi Baudouin 2017).

Along with this feeling, the habitat enables to relax and open up to the world afterwards (Larceneux 2011): the inhabitant can more freely explore some foreign space, knowing that he/she will return to his/her home. Housing being a real anchor implies that the inhabitant always craves to return to it. However, housing can be a home where we return only if we are able to leave it: it is therefore fundamental to bring a particular importance to its relationship with the outside, so that it does not become a place of confinement and loneliness (Heywood 2005).

### **3.0. HABITAT TEMPORALITY: AN EVOLVING CONTEXT**

In addition to the need to combine the functional and affective dimensions of the habitat when questioning *ageing well in place*, it is also important to put this reasoning in its temporal context.

#### **3.1. Changing generations**

The end of the Second World War marked a period of change. The generation of newborns from this period, the *Baby Boom* generation, has now reached retirement age. However, these persons grew up in a very different social, political and historical context than their elders and are more likely to reach an advanced age (Auger 2016). This differentiation between the pre- and post-war generations is analogous to the differentiation that will occur between current and future generations of seniors: generally better trained, more active/autonomous, with renewed technological resources, these people will also have a constantly growing health capital (Beyeler 2014).

These findings suggest to study ageing in place in a nuanced, contextualized and specific way. Reflection cannot be absolved from this context, especially since these specificities have a considerable impact on the expectations, wishes and longings of occupants regarding their housing.

#### **3.2. Changing needs and expectations**

Retirement and entrance into third age open new doors to life projects (Masson et al. 2015). By entering into a context of living older and (often) better, the expectations of the Baby Boom generation have evolved on several points.

Having lived their youth sometimes in great discomfort and, in parallel, experiencing development of comfort over short periods of their lives, imply several significant changes in their ways of living. In addition, society has gradually focused on the individual and its personal development (Bickel, Lalive d'Épinay, and Vollenwyder 2005). Happiness and progress became key words, with also significant implications in the areas of health and technology.

In parallel with technological aids, the use of human aids has also increased. The Baby Boom generations have become more familiar with society's services and outsourcing of tasks (Kaufmann 1995). This observation is particularly interesting in the context of ageing in place: in addition to an architectural approach of ageing, it is necessary to consider evolution of additional supports provided within housing.

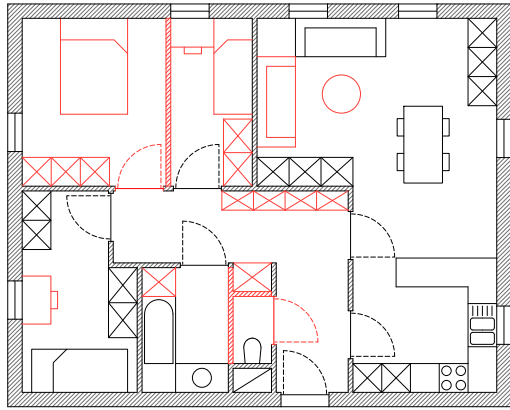
Finally, the Baby Boom generation's ways of living are more impacted by mobility than their elders, given a *personal disposition to move* in the geographical area (Kaufmann 2017) : the attachment to the neighborhood, the links created throughout history and to a particular dwelling are no longer insurmountable obstacles, as attachment can be reproduced elsewhere.

All these changes in habits of the Baby Boom generation, and all expected changes for further generations obviously will have particular repercussions on how we should envisage ageing well in place.

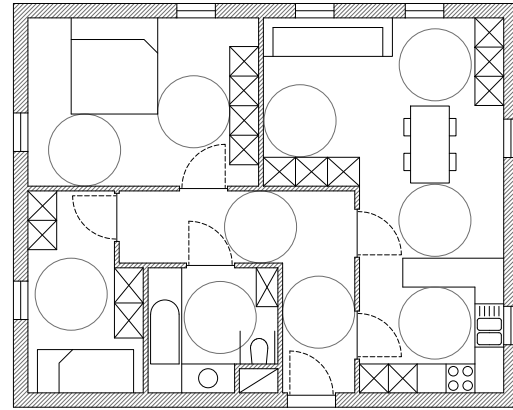
#### **3.3. Changing houses**

Architecture, by its longevity, accompanies the life process of its inhabitants. To live in a dwelling includes living in the present, accumulating objects related to the memories of the past, while imagining future prospects. The relationship to space is evolving and the experience of home is redefined throughout life. To avoid altering the life objective of the occupants, it is therefore necessary for the habitat to evolve over time.

In this context, *adaptable housing* could provide some functionally flexible opportunities for the future housing of older people. This concept induces a temporality in three phases: (a) conception of an adaptable housing (Fig. 1); (b) accommodation and adaptation phase; (c) use of adapted housing (Fig. 2). The principle is to make possible, from the beginning of the construction, its transformation into a housing adapted to the main physical needs of the inhabitant, and particularly reduced mobility (CSTC et al. 2006). Thus, for instance, by adding or removing elements in the dwelling (simple/light work that does not affect the supporting structures), an inadequate room can turn into an "adapted" space.



**Figure 1 - Adaptable housing (CSTC et al. 2006)**

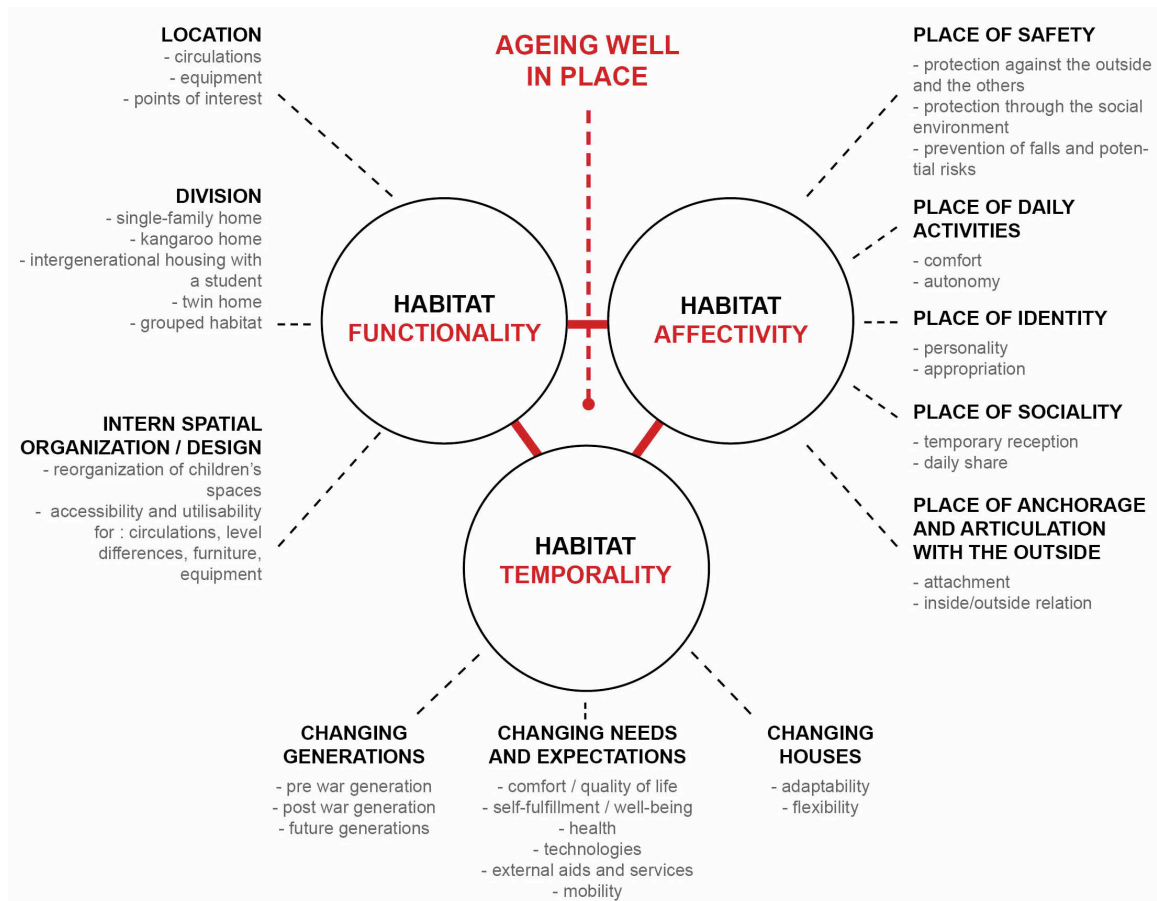


**Figure 2 - Adapted housing (CSTC et al. 2006)**

However, this alternative, although offering functional and temporal advantages, does not necessarily take into account the affective and subjective dimensions of the habitat. It is therefore essential, nowadays, to further explore existing and innovative housing possibilities for older people (e.g., three generation house, community living initiatives, co-housing initiatives, etc.), in order to favor the stages of life and then enable ageing people to continue to live, as they wish, as long and pleasantly as possible at their home place.

## DISCUSSION AND CONCLUSION

This reflection on the functional, affective and temporal dimensions of housing in the context of ageing well in place allows us to confirm the importance of their association (Fig. 3).



**Figure 3 – "Ageing well in place" global scheme**

The habitat functionality must be ensured at all scales, from the (re)location of housing to details of the architecture/design, passing by the housing division and its internal spatial organization. In parallel, special attention must be given to the subjective/affective meanings of the home as a place of safety, daily activities, identity, sociality and anchorage/articulation with the outside. Finally, these reflections must necessarily be part of a temporal reasoning, taking into account the concerned generation(s) and their particular needs/expectations, as well as the evolutionary dimension of housing, to create architectural solutions all the more flexible in the future.

Research is now needed to propose new methodological frameworks and habitat adjustment solutions, in order to offer living environments adapted and appreciated by older people. Via our project, we aim to fill in this gap. To contribute to the body of knowledge, three research questions structure our project: (a) How to identify expectations and well-being factors of older people regarding their dwelling? (b) Which spatial devices may create or enhance a feeling of home for older persons (entering thus in a Subjective Well-Being reasoning)? (c) When/how can designers intervene in older people's homes to favor the quality of their living environment and allow them to live as long and as comfortable as possible at their home place? Two objectives are targeted in our project: (i) providing designers with a methodology to interrogate and integrate the affective demands of older people regarding their homes and relating these to functional dimensions; (ii) proposing concrete generic spatial devices relating to subjective well-being.

## ACKNOWLEDGEMENTS

We especially want to thank Prof. Marie Roosen for her investment in setting up this research project.

## REFERENCES

- Auger, F. 2016. *L'aménagement de L'habitat Chez Des Couples de Nouveaux Retraités Baby-Boomers : Vivre Le Présent, Anticiper L'avenir ?* Lille : Université Charles de Gaulle.
- Berger, N. 2013. *L'habitat Kangourou : Un Bond En Avant ?* Bruxelles: CPCP Au Quotidien.
- Bernard, N. 2005. *J'habite Donc Je Suis : Pour Un Nouveau Rapport Au Logement*. Bruxelles: Labor Quartier Libre.
- Beyeler, M. 2014. *Métamorphose : Transformer Sa Maison Au Fil de La Vie*. Lausanne: PPUR.
- Bickel, J-F., Lalive d'Épinay, C. and Vollenwyder, N. 2005. *Changement et continuité dans les loisirs : une comparaison de cohortes*. L'Année Sociologique 55(1): 129–169.
- Bontron, J-C. 2013. *L'accès Aux Soins Des Personnes Âgées En Milieu Rural: Problématiques et Expériences*. Gérontologie et Société 36 (146): 153–171.
- Bonvalet, C., Clément, C. and Ogg, J. 2011. *Réinventer La Famille : L'histoire Des Baby-Boomers*. Paris: PUF.
- Cassaigne, B. 2006. *Habiter*. Revue Projet (294): 67–71.
- CSTC et al. 2006. *Guide D'aide À La Conception D'un Logement Adaptable*. Belgique: MET.
- De Briey, L. 2011. *Analyse : Le Logement Intergénérationnel À Bruxelles. Quand L'habitat Devient Vecteur de Solidarité*. Bruxelles: Cpcp, cepass.
- De Decker, P. and Dewilde C. 2010. *Home-Ownership and Asset-Based Welfare: The Case of Belgium*. Journal of Housing and the Built Environment 25 (2): 243–262.
- Diener, E. 2000. *Subjective Well-Being: The Science of Happiness and a Proposal for a National Index*. American Psychologist 55 (1): 34–43.
- Fabre, P. and Sahmi, N. 2011. *Construire pour tous : accessibilité en architecture*. France: Eyrolles.
- Fondation Roi Baudouin. 2017. *Choix de Vie Durant Les Vieux Jours : Enquête Auprès de plus de 2000 Personnes de 60 Ans et +*. Bruxelles: Fondation Roi Baudouin.
- Fontaine, S. 2016. *Habitat Des Seniors - Vers Des Formules Adaptées Aux Besoins de Chacun*. Les Echos Du Logement (2). Namur: SPW Editions.
- Gabriel, Z. and Bowling A. 2004. *Quality of Life from the Perspectives of Older People*. Ageing and Society 24 (5): 675–691.
- Gouvernement Wallon. 2014. *Oser, Innover, Rassembler 2014-2019*. Belgique.
- Grebot, Benjamin. 2015. *L'habitat Des Personnes Âgées*. Bretagne: ADEUPa.
- Heywood, F. 2005. *Adaptation: Altering the House to Restore the Home*. Housing Studies 20 (4): 531–547.
- Kaufmann, J-C. 1995. *Faire Ou Faire-Faire ?* France: PUR.
- Kaufmann, V. 2017. *Les paradoxes de la mobilité : bouger, s'enraciner*. Lausanne: PPUR.
- Larceneux, F. 2011. *J'habite Donc Je Suis*. Etudes Foncières. ADEF, 23–26.
- Masson, O. et al. 2015. *Habitat et Vieillesse. Inventaire Des Formes de Logements Qui Supportent L'interdépendance et L'autonomie Des Seniors*. Belgique: Université catholique de Louvain.

- Morin, P. et al. 2009. *Signification Du Chez-Soi et Intervention Psychosociale À Domicile Dans Les Programmes de Soutien À Domicile, Enfance/jeunesse/famille et Santé Mentale*. Québec: Université de Sherbrooke.
- Mormont, M. 2015. *Habitats Alternatifs: Projets D'avenir Ou de Niche?* Santé Conjuguée, (72): 87–90.
- Petermans, A. and Pohlmeier, A. E. 2014. *Design for Subjective Well-Being in Interior Architecture*. 6th Annual Architectural Research Symposium in Finland 2014, 206–218.
- Ségaud, M., Bonvalet C. and Brun J. 1998. *Logement et Habitat : L'état Des Savoirs*. Paris: La Découverte.
- Senoah. 2016. *Envisager Aujourd'hui Son Chez-Soi de Demain - Guide Pour Choisir Son Habitat*. Namur.
- Serfaty-Garzon, P. 2003. *L'Appropriation*. Dictionnaire Critique de L'habitat et Du Logement, 27–30.
- Serfaty-Garzon, P. and Condello M. 1989. *Demeure et Altérité: Mise À Distance et Proximité de L'autre*. Architecture & Comportement 5 (2): 161–173.
- Smetcoren, A-S. 2016. *I'm Not Leaving!/? Critical Perspectives on 'Ageing in Place*. Brussel: Vrije Universiteit Brussel.
- United Nations. 2015. *Interactive Data – Profiles of Ageing 2015*. Department of Economic and Social Affairs, Population Division.