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HOME IN LATER LIFE

A Framework for the Architecture of Home Environments

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ABSTRACT With the growing number of people moving into old age, architects face the challenge of designing appropriate residential environments for current and future generations of older people. Too often they live in houses that are not adapted to their needs and desires, with few spatial and social qualities of a real home. Among architects and professional care givers awareness is growing of the importance of "feeling at home" in residential care environments, rather than just having basic needs like food, shelter, and medical care met. This article builds on this tendency. Based on literature from different disciplines, we first identify a set of concepts that form a framework to understand: (1) what is important in order to create a feeling of

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homeliness, particularly for older people, and (2) how the physical house and its environment can contribute to that. We then articulate how these concepts can be reflected in the architecture of the home by drawing on empirical material from case studies in the homes of older people living in different contexts. The feeling of homeliness is based on a dynamic balance between autonomy and security. This balance is an ongoing process, called appropriation; it is the process by which a person makes a house into a home. For five spatial aspects we describe and document how they may contribute to enhancing the autonomy/security balance.

KEYWORDS: appropriation, autonomy, home, meaning, older people, security

INTRODUCTION

What makes a house into a home? In the context of residential care facilities for older people this is an important question, since too often these facilities fail to offer a home for the people who live there. In the last decades—and especially in the 1980s—older people in most industrialized countries were often housed in institutions where the emphasis was on cure and only little importance was attached to the quality of daily life (Verdeber and Refuerzo 2006: 14). Criticism arose from the moment those buildings were constructed. Awareness grew of the importance of "feeling at home" in residential care environments. However, today there is still a search for an appropriate way to shape living environments where people (of different ages, genders, nationalities) can feel at home. The growing number of older people makes this quest even more topical.

This article aims, first, to identify what is important in order to create a feeling of homeliness and, second, to articulate how the physical house and its environment contribute to constructing the meaning of home. In the first part, this article describes a coherent framework of general concepts that could offer a basic understanding of how people experience and appropriate their living environment. In the second part, this article illustrates how those general concepts can take shape in and are colored by the daily living environment of particular people moving into old age.

BACKGROUND

Because of the presumed complexity and large scale of these facilities, the design of residential care environments for older people is often dealt with by "experts" in the field (van Boxel *et al*. 2007: 10).

In the past, this isolated approach of the social service sector often resulted in high-rise, hospital-like buildings. In such cases the quality of residential care environments was mainly considered in terms of technical, functional, and economic requirements, while human factors received less attention. Gradually, a more holistic view on health developed, taking into account the impact of the physical environment on a person's well-being. This tendency is frequently reflected in literature on residential care environments (e.g. Barnes 2006; Feddersen and Lüdtke 2009; Parmelee and Lawton 1990; Torrington 2007; van Boxel *et al*. 2007).

Outside the context of residential care facilities authors have also written about person–environment or person–object relations, for example in anthropology (Bollnow 2011), philosophy (e.g. Graumann 1989; Merleau-Ponty 1967), sociology (e.g. Madanipour 2003), and human ecology (e.g. Chapman 1999).

Three recurring ideas in those writings are considered in our study: first, the idea that a person–object relation is mutual. "Humans influence and are influenced by the inanimate parts of our world," Chapman (1999: 208) writes; second, that through such relations people make sense of themselves, others, and the things around them; third, that meaning is personal, but at the same time embedded in historical, cultural, social, economic, and other contexts.

Beyond these similarities there seems to be no complete consensus about which aspects are important for a home environment. Several researchers have put forward their own set of aspects. Lawton (2001: 59), for example, lists "autonomy, individuality, dignity, privacy, enjoyment, meaningful activity, relationships (interactions), security/ safety, comfort, spiritual wellbeing and functional competence."

According to Frances Heywood (2005: 534), "it is unlikely that a finite list will easily be agreed." Consequently, there is no consensus on how to shape the physical envelope of a home, that is, the house. In fact, as Feddersen and Lüdtke (2009: 26) write, "there is no best or correct model, but rather a multiplicity of appropriate responses which, when thoughtfully combined, will make the most appropriate model for that specific time, in that specific place."

Facing such complex matters, different approaches have been pursued to investigate how living environments should be designed in order to create a feeling of homeliness amongst residents.

WHAT IS IMPORTANT FOR CREATING A FEELING OF HOMELINESS?

In search of an answer to this question, we were facing the two difficulties mentioned above, that is: (1) how to work with a set of aspects of home that is never exhaustive and that is both personal and culturally embedded; and (2) how to choose a suitable research approach to explore important aspects of home and the contribution of the physical environment to the meaning of home.

In addressing the first difficulty we relied on the work of Patricia Parmelee and M. Powel Lawton (1990). They state that at the heart of person–environment relations in late life lies the dialectic of autonomy and security. A personal balance between autonomy and security will ensure a person's well-being. Most, if not all, aspects of home can be covered within this dialectic, while it still forms a workable set for research.

Regarding a suitable research approach, Gurney (1990) suggests that several research approaches should be combined in order to understand the full meaning of home to a specific individual. Only in this way can we take into account diverse "issues which are important in colouring an individual experience of home." In line with Gurney (1990), both Somerville (1997) and Madanipour (2003) stress the need to integrate biological, psychological, and sociological perspectives within a single coherent framework.

Taking up this idea, the framework presented in this article is based on literature from different disciplines like psychology, sociology, philosophy, and phenomenology and, in particular, anthropology, architectural theory, and several housing studies.

Autonomy and Security

Based on the work of Parmelee and Lawton (1990), we presume that autonomy and security can frame most aspects of a home environment. First, it is necessary to explain what we mean by the terms "autonomy" and "security." While we are aware that these terms can be interpreted in different ways, for the scope of this article we adopt an interpretation in line with the Parmelee and Lawton.

For one's well-being (in a broad sense of the word) a person needs autonomy, that is: to be challenged by new environments (i.e. different from one's (kn)own environment), new people, unpredictable situations. These factors make life more exciting, more interesting, and less dull, and they put former experiences into different perspectives. To successfully give meaning to and cope with a particular situation a person needs to be able to think and act like an autonomous person.

Security, on the other hand, is a state in which a person can rely on both physical and mental support from within or outside him/herself to successfully give meaning to and cope with a particular situation. Security means both physical safety and peace of mind, for example, being free "from risk, danger, concern, or doubt" (Parmelee and Lawton 1990: 466). People can be supported by a living environment that fits their physical capacities and their identity, a familiar environment that affords certainty to the residents. Social support, for example by family, friends, or care givers is an important aspect of security.

Autonomy and security stand in a dialectical relationship, and both can be experienced in different contexts and times. A dynamic balance between autonomy and security will ensure a person's well-being. This

balance is never fixed. Rather, it will change with time, as the physical and cognitive capacities of a person change from child to older adult.

Our aim is to explore how the physical environment can help a person to continuously reestablish his/her personal balance between autonomy and security.

Meaning-making

On the presumption that the physical environment can make a contribution to the dynamic balance between autonomy and security, we attempt to understand the relation between a person and the physical environment. Many writers, like Bollnow (2011), Chapman (1999), Graumann (1989), Heywood (2005), Imrie (2004), and Merleau-Ponty (1967: 162), suggest that humans influence and are influenced by the objects that surround them. "To understand either humans or the objects with which they live, we must study them in relationship," Chapman (1999: 208–9) writes.

Through these relations people assign meaning to themselves, to objects, and to others around them. A person's experiences of an environment are interpreted through association with and differentiation from former experiences. That is how a person gets to understand the world around him/her and assigns meaning to it. "Phenomenologically, the experience of reality is the experience of meanings" (Graumann 1989: 118). This meaning-making can be seen as a basic human need, since it is through meaning-making that the lifeworld of a person is structured and ordered (Rommel *et al*. 1998: 21).

Meaning-making in the relation between person and environment can be interpreted in terms of balancing autonomy and security. The experiences throughout a person's life can be conceptualized by pathways (Figure 1). With every new experience, new interpretations (i.e. different from former interpretations) and thus new pathways are made, increasing autonomy. With every similar experience, existing pathways are used and deepened, assuring that a "correct" association was made, that the "true" meaning was found; and so the person gains security.

Person–Object Interactions

Meanings are constructed through person–object interaction. Through the senses a person experiences "the outside world." A person's body and mind work together to interpret and assign meaning to these experiences. In fact, as Madanipour (2003: 17) writes, rejecting Cartesian dualism, body and mind cannot be differentiated. Every experience is a bodily experience, and a person can be considered to be an embodied mind (Madanipour 2003: 16). Similarly, Graumann (1989: 119) argues:

> Whether a person perceives or acts, his or her world is encountered only within the modalities, potentialities and limits of the

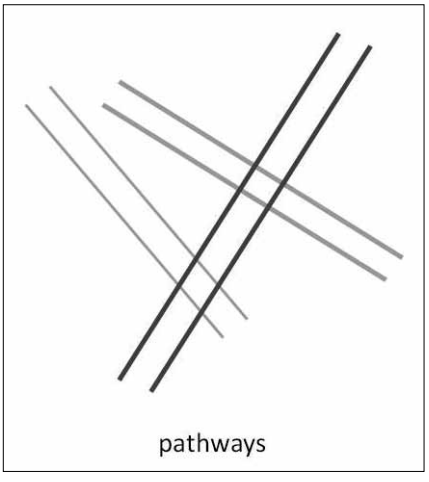

Figure 1
Each interpretation can be conceptualized by a pathway.

> body, different for a child, for the aged, for a highly trained or for a disabled person, for a woman or a man, the slim or the stout, etc. [...] The fact that we experience the world from points of view, i.e., in perspectives, we owe to our bodily identity.

Experiences are most intense through active encounters with an object. Activities—like eating, walking, talking—rather than mere visual images, leave the strongest emotional marks in a person's memory (Pallasmaa 2005: 63).

> The approaching of the house, not the façade; the act of entering, not the door; the act of looking out of the window, not the window itself; or the act of gathering around rather than the hearth or the table as such seem to trigger our strongest emotions. (Pallasmaa 1992)

An encounter is shaped by the nature of both person and object (such as a building or space). A person acts to make sense of an object. On the other hand, that act is shaped by the object. A person's movements and activities are intrinsic elements of experiencing an object or space.

By moving through places, a person assigns meaning to those places. Just as new experiences are associated with former experiences, for new places to gain meaning they depend on known ones. This case has also been made by Stock (2007: 8) and Bollnow (2011), who contend that distant, foreign places only make sense if contrasted with what is close at hand and familiar. As stated before, new situations—i.e. situations different from familiar ones—offer new perspectives from which diverse or new meanings can be assigned to former experiences. They offer opportunities for differentiation and thus for increasing autonomy. Familiar circumstances can be

associated with former experiences and thus offer security. Hence, autonomy and security can be related to space.

The Fundamental Double Movement of Going away and Coming back

A person's lifeworld is composed of different places—some more secure than others—to which meaning is attached within geographical, technological, sociocultural, historical, and other contexts. Familiar places act as points of reference for giving meaning to new places (Bollnow 2011). They offer the security needed to explore new places. By gaining new experiences a person enlarges his or her lifeworld. This can be conceptualized by considering a person's lifeworld as a layered, onion-like structure (Madanipour 2003: 25) (Figure 2). Moving from the inside out, every layer represents a less secure space. The innermost layer is formed by the person him- or herself, the embodied mind. Next, personal space delimits an invisible, flexible area around the person. Though personal space is not physically delimited, it is experienced in interaction with other people, e.g. by keeping a certain distance between yourself and a stranger, but approaching a relative more closely. Layers increasingly distant from the personal space would be the home, the neighborhood, city, or country. Each layer encompasses a space more secure than the one surrounding it. The boundary of every layer mediates the interactions between adjacent spaces, coloring the meanings those spaces might have for a person.

This onion-like structure should be regarded as conceptual, not as a realistic or perfect depiction—for example, the living environment of an individual is not really concentric; additional layers could be defined. Still, it allows us to explain some important aspects of life, home, and the home environment. It represents the lifeworld of a person containing both secure spaces and spaces that offer more autonomy. Relying

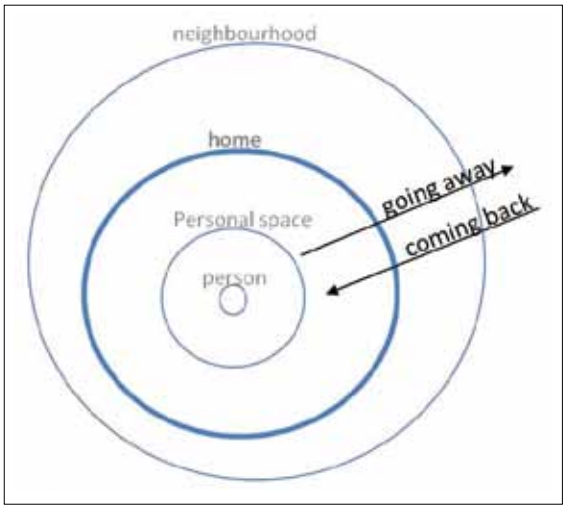

Figure 2
Conceptual representation of a person's lifeworld.

on the security of the innermost layers, a person can be challenged by new situations, places, or people in the outer layers. Autonomy and security can be balanced by alternating between different layers, i.e. between new places and people, new sensory stimulation, offering challenges, on the one hand, and the physical and mental rest associated with known places and people (like close friends and family), on the other. Bollnow (2011) called this the "fundamental double movement of going away and coming back." Without explicitly writing about autonomy and security, he describes how autonomy and security are reflected in physical space.

House and Home

The onion-like structure shows the home as an important point of reference in the lifeworld of a person. Both Bollnow and Bachelard consider the home to be a protective place from which to explore the outside world: "Before he is 'cast into the world,'... man is laid in the cradle of the house" (Bachelard in Bollnow 2011: 258).

Home represents something like the next layer after the embodied mind, an extra skin around a person. It is an extension of the self, reflecting a person's identity. Through interactions with the house—like furnishing, decorating, tidying up—a person makes the house his or her own. Ownership can here be understood in a legal sense, but in particular it means "being in control" (Madanipour 2003: 63); for example, control over who is allowed to enter and who is not. Heynen *et al.* sees this connection between ownership and identity: "Identification is: to own. If you cannot identify yourself [with the house], then you do not dwell, then you lodge" (Heynen *et al*. 2004: 431; our translation).

Home is a person's territory that shields and differentiates him or her from others (Madanipour 2003: 50). The word "privacy" comprises these two aspects and carries an ambiguous meaning. Privacy offers security, since it allows a person to be shielded, protected from the "outside world," surrounded by things and people to whom he or she feels connected. On the other hand, privacy makes it possible to feel autonomous, free to act the way one wants, to be oneself (i.e. different from others). The former is a prerequisite for the latter: "A feeling of security is essential for the self-identification of humans," Bollnow (2011) writes. According to him, it is the anthropological function of the house to offer security. And indeed, self-identification is an important aspect of meaning-making, since the self is the most fundamental point of reference. Person–environment interactions come down to assigning meaning to one's self in relation to the environment.

A person also gains security through the everyday interactions with the house, like walking from bedroom to bathroom, cooking, eating (Feddersen and Lüdtke 2009: 28). Such activities do not require much thought; few new decisions and interpretations need to be made. They become *habits* to the *habitant*.

Based on what we have outlined so far, it should now become clear what makes a person feel at home. A home contains personal objects, i.e. objects that have a special meaning for the dweller, which the dweller gathers around him or her, or even hides from other people. The dweller can identify with his or her home, making statements such as "I feel at home here" interchangeable with "I can be myself here" (Graumann 1989: 122). A home is part of daily life. Even if one's home is not much more than a sleeping place, the home—and particularly the bed—is the place where a person always will return to (Graumann 1989: 121). As a place from which to explore the "outside world," it is from the home that a person also gradually incorporates his or her surroundings into the known lifeworld.

Home is not constructed all at once. It takes time and practice. In fact, making a house into a home is an ongoing process, referred to as "appropriation" by Nylander (2002). In the context of our study, appropriation comprises all activities that cause an interaction between dweller, home, and home environment. To appropriate is to adjust the close environment and to make it more suitable for the dweller, to fit it to one's physical and mental capacities, and identity. Through these activities a person creates a permanent place to reside, where he or she will find the security that is a prerequisite for identifying self and others, for a feeling of territoriality and autonomy. Appropriation is a process of meaning-making by which a house is made into a home.

Home in Later Life

If we consider growing old to be a continuous process, the domestic life of an older person is not so different from that of a younger person. However, aging brings about bodily changes, and thus the process of meaning-making changes. As memory declines, a person will readily rely on the deepest pathways. It becomes harder to incorporate new habits and to adjust to new situations and environments; the need for security grows. With senses and mobility deteriorating, the fundamental movement of going away and coming back will become limited. The daily lifeworld of a person might then be restricted to the house, a room, or even a bed, and autonomy is reduced.

As a consequence, the home environment for older people should enhance autonomy and offer security when, as much as and in the ways needed.

HOW DOES THE PHYSICAL ENVIRONMENT CONTRIBUTE TO CONSTRUCTING THE MEANING OF HOME?

So far we have described what is important in order to create a feeling of homeliness, that is to say: a dynamic balance between autonomy and security, (re)established by an ongoing process of appropriation.

In the following section we will amplify this framework with empirical material from a set of case studies. As the experience and the meaning of home cannot be accurately measured or quantified (see

Bollnow 2011; Gurney 1990; Nylander 2002), we decided to adopt a qualitative research approach. We interviewed a number of older people, taking their own personal stories to explore what is seen as important in creating a home.

The participants in these case studies had all moved rather recently to a new house, apartment, or room. We interviewed them in their new home environment. The participants were of no preselected background, age, class, etc., since we explicitly wanted to avoid making generalizations for any such category. Nor was it our intention to discover cultural differences in what is important in a home environment. On the contrary, we were interested in how the physical environment colors the meaning of home for a particular person, and for that person only. With these case studies we aim to understand complex realities—which, according to Thomas (2010), are the value of case studies—on the basis of the framework developed earlier. Addressing older people in a recently changed living environment allowed us to highlight concepts that in some other contexts may have remained concealed because they are taken for granted. For example, when moving to a new apartment in old age, a person "appropriates" a new environment, i.e. he or she changes habits, adjusts the degree of openness to communal spaces, and so on. At the same time, the concept of appropriation may be explanatory in other contexts too.

Different types of residential (and care) facilities in Flanders, Belgium, are considered here. Through open, semi-structured interviews with the participants, we aimed to gather their appreciation of their home environment and what they find important about it. Rather than studying a large number of cases in a standardized way, we preferred to conduct four in-depth interviews with one person or one couple at a time. They were asked questions like: What was your first impression of this house? Do you have favorite places in your house? How would you describe this room? Are there things you would like to change? Each interview lasted approximately two hours. The names of all participants have been changed.

Magda and Luc share an apartment on the ground floor of a 1990s four-storey building, located in the center of a little town. Their apartment consists of a bedroom, study, bathroom, kitchen, living room, and terrace, with a garden shared by all the residents in the apartment block. Anticipating the possibility of decreased mobility in later life, they exchanged their former house for this apartment, which is smaller and closer to public facilities and transport.

Anna lives in one of the service flats of a low-rise building, which formerly was a seventeenth-century *béguinage*. It is situated next to and linked with a residential care center for older people, which provides services like meals, laundry, medical care, and leisure activities for the occupants. Her need for such services was the main reason for Anna to move there. Her apartment has a little living room with kitchenette, from which the bedroom is partly screened off. Next to

the bedroom are a bathroom and a terrace. Both on the front and back of the apartment there is a public garden, although it is almost exclusively used by people living in the service flats and their care givers.

Third, Louise has a private room in a residential care center in a rural area, housed in one large building that was formerly used as a hospital. This building's three wings are connected by common and service rooms. One of the wings comprises four floors, the others only one and a basement. Each wing includes a common dining room with terrace, bathroom, and smoking area and personal bedrooms with washbasin and toilet. Louise moved here when she became physically unable to take care of herself. Although she had the opportunity to move in with her daughter, she preferred this residential care center, being afraid she would have had to abide by her daughter's rules. Now she can "be her own boss, at least a little bit." Her daughter, who lives nearby, comes to visit her once in a while.

Finally, Jan has a private room in a residential care center that consists of four clusters of recently built units and an older central building. Each unit consists of eight single rooms with washbasin, toilet and shower, a common living room, and a bathroom. Each pair of units is linked by a shared kitchen. A cluster consists of two pairs of units, housing thirty-two people, and each is linked with the central building where services like a cafeteria, a multipurpose room, a day-care center, etc. are located. For all his life, Jan had lived just a few kilometers away. He has seen the center being built and he "knew it was superfine perfect there." Thus, when Jan needed extra help with daily activities, the decision to move here was a fairly easy one, he said.

In these case studies we will describe how spatial aspects influence the process of meaning-making (appropriation). The physical environment, including its spatial aspects, can influence meanings in several ways. A lot of work and rework was needed to delineate a particular set of spatial aspects. The choice of particular spatial aspects depends on the research question and the characteristics of the environment under consideration (e.g. scale). Kevin Lynch (2000), for example, used five elements—path, edge, district, node, and landmark—to describe "the image of the city." He summarized "these clues to urban design" by describing ten qualities of form: singularity, form simplicity, continuity, dominance, clarity of joint, directional differentiation, visual scope, motion awareness, time series, names and meanings (Lynch 2000: 105–8).

In our research we employed five spatial aspects to describe how the physical house and its environment can contribute to the process of meaning-making. They are based on the spatial aspects ("attributes") identified by the Swedish architect Ola Nylander (2002) in an exploration of non-measurable aspects of architecture in residential buildings (for young as well as old inhabitants). We chose to build on

Nylander's work because of his point of view (being an architect), his approach (qualitative), and focus (residential buildings), and we only adjusted (i.e. renamed and reordered) some spatial aspects to be more easily comprehensible on the basis of the framework described earlier in this article:

- spatial articulation
- enclosure
- sensory qualities
- materials
- form, measurements, and proportions.

Spatial Articulation

The spatial articulation of one's home environment defines the different layers in a person's lifeworld. Spatial articulation describes the configuration of private layers, less private layers to public layers, as depicted in the onion-like structure. A gradual transition from private to public places allows a person to appropriate the environment step by step, always returning to the security of the home. Therefore, well-articulated spaces contribute to the process of appropriation. Consecutive layers might be, for example, the private bedroom, living room, front yard, street, residential district, town, etc.

As layers are incorporated into a person's lifeworld, they reflect his or her identity to a certain degree, especially the most private places and those that are part of daily life form a person's identity. Here, a person can establish a little territory for oneself, for example, by means of furnishings and personal belongings, creating a feeling of privacy, distinctiveness, and sense of personal identity (Madanipour 2003: 50–1). This is important for the process of meaning-making. For example, Magda and Luc live in an apartment where both of them have a few places that belong more to the one than to the other, like a particular seat at the dining table, a closet with personal objects, a sewing corner for Magda, and a computer table for Luc. Furnishings and decoration are carefully selected. To some furnishings they are attached, like the little desk in the living room, a finely crafted piece of furniture with several drawers and a tablet inlayed with leather. It is filled with souvenirs, old pictures, and other things. Memories are attached to this desk, and it has a style that fits their identity.

> I think that it's irreplaceable. There's no more beautiful place to put those [souvenirs]. And the little desk itself does have style, doesn't it. (Interview, Luc)

All interviewees acknowledged that, in order to feel at home, it is important to be allowed to bring personal objects into their room or apartment and to have enough places to put them.

> From the moment I came here I felt at home. [...] Really, I have my own place, you know. I am not at someone [else]'s home." (Interview, Anna)

Respecting each other's privacy (i.e. not intruding on private layers) is an important aspect of living together with relatives, neighbors, and care givers. In that way, a person can decide when to socialize or to retreat to a private place. Searching for a balance between social contact and privacy can be understood as trying to establish a personal balance between autonomy and security. Anna, for example, lives in a service apartment. She never invites neighbors in for a cup of tea, and she is happy that nobody insists on that. She considers her apartment to be a very private place. If she feels like chatting, she goes to a common dining room.

> Around the table you can have social contact, in the dining room. [...] You live in a community, but you don't go sitting with each other [in each other's apartment]. I don't, anyway. And they also respect that I prefer that. (Interview, Anna)

Layers on a bigger scale, like the neighborhood or town, also influence the feeling of homeliness. After living a while in a certain neighborhood, a person becomes familiar with it and, above all, memories and emotions are attached to it. The home surroundings become a part of one's life, and a sense of belonging grows (Madanipour 2003: 50–1). Moving to a strange village or town not only means leaving a house, it also means the loss of home and a home environment to which a person feels attached; and with the home, security is lost. A person will have to incorporate new habits and adjust him- or herself to new situations and environments. Moving to a new house in a familiar neighborhood is a smaller step and thus may be preferred by older people. A few quotes illustrate how participants felt about leaving home:

> Yes, that's of course a bit sad, you know. You have to leave home. That's hard, you know. I find that hard. Actually, the first days I didn't feel, euh, I didn't feel well, no. [...] Not because of this place, but away from home ... I've often been away from home, but that was on holiday. That is something different, you know. And moving in here it was like: you don't know anybody, everything is so unfamiliar and ... after a week or two I felt better. (Interview, Jan)

> It's surely a big step in your life ... You grow old, you know. You like to be young, but you can't do anything about it. [...] It's the step: it is all behind us now. (Interview, Luc)

> That's growing old, you know. You have to adapt to everything, say farewell [to relatives] ... leave your house ... (Interview, Anna)

> I practiced that art for a long time. It's not something I learned at once. [...] I've learned to adapt to many situations. (Interview, Louise)

Enclosure

The enclosure of a layer in a person's lifeworld should be clearly defined in order to provide security. On the other hand, openness to other layers allows one to explore the "outside world" and so increases opportunities for autonomy. An alteration of more open and more closed spaces is essential to a feeling of homeliness. Architecture, too, plays a role in this, as is well illustrated by the way Anna talked about the window in her dining room: its upper part is barred; if these bars were to cover the whole window—as is the case with her neighbors' window—she would feel imprisoned. Anna removed the little white curtains so that, looking out, she feels free. On the other hand, she put flowers on the windowsill in order not to feel too exposed to passers-by (Figure 3).

Figure 3
The window in Anna's dining room. Anna opened her dining room towards the neighborhood by removing the little white curtains. However, she put flowers on the windowsill in order not to feel too exposed.

> I have to be able to look outside. [...] I felt locked-up. Yes, I felt,... I didn't feel at home here. I took them away and I put flowers there. (Interview, Anna)

The participants made several remarks about the importance of a view and access to outdoor places in order not to feel locked in. "I need to be able to go out," Anna said, explaining why she sometimes leaves the back door open.

> When I can't sleep at night ... or I have to go to the bathroom, I go to that door and I look to see whether there're clouds or stars. That's my cup of tea. That's why I asked, when I move to a residential care facility, please, put me in a room where I can see the clouds, because you have rooms that look out on the courtyard, you know. That's what I'm afraid of. [...] If this were closed, I don't think I would've come to live here. I have to see the sky and nature. (Interview, Anna)

Louise mentioned that she still wants to see a clear sky.

> ...from within my room I can see the sky and then I see airplanes flying over. And they have condensation behind them, you know. And in a blue sky it's so clear! It's like geometrical figures in the air. Triangles and squares and everything you want. I can enjoy watching that! I don't need a lot to be content. (Interview, Louise)

Louise regrets that she is not able to open or close the window in her private room herself. Because the handle is beyond her reach, she depends on care givers for that. Other participants are able to decide for themselves when and to what degree they want to open up their private places towards outdoor or indoor communal places, for example, by opening, closing, or even removing particular curtains and doors, or by placing flowers in front of the window.

Boundaries and interaction (being shielded from or open to other places) also play a role at an interpersonal level. Louise talks about the communal dining room, which is divided into smaller, interrelated dining corners (Figure 4):

> You're not sitting on top of one another either, you know. No, there's enough space. [...] It's cosier like that, it's cosier. Otherwise there are too many people at the same time. [...] It's better like that. (Interview, Louise)

Every person is an individual, with his or her personal space, seeking to be distinct from, but also wanting to interact with, others. For example, sometimes groups are formed of people who can (partially)

Figure 4
In the residential care center where Louise lives, the communal dining room is divided into smaller, interrelated dining corners.

identify with each other. In a large, crowded room, however, personal identity and territories are difficult to distinguish. The room appears to be impersonal, which is not desirable in a home environment. In a smaller room a person or a group can occupy a place more easily and make it their own for a while (appropriate it). This is also possible by clustering smaller spaces, while providing enough room for many people, as has been done in the residential care center where Louise lives.

Sensory Qualities

As mentioned above, sensory stimulation is part of the fundamental movement of going away and coming back. Interpreting new sensory input requires a cognitive effort. It challenges an individual to make new associations. On the other hand, known sensory stimuli or the cessation of sensory input during sleep offer security. Because sensory qualities, like smells, tastes, colors, textures, or sounds, can be associated with former experiences, they can revive memories and emotions (Regnier 1994: 68). In that way they are important for meaning-making.

Though people are often not aware of how sensory qualities influence the meaning of home, some quotes from the participants reflect they can make a place feel like home, like a secure retreat or a stimulating place from which to go out and explore.

Luc experiences a strong feeling of home when returning from a workday late in the evening:

> I think it's beautiful when I come home later in the evening and I see the illuminated living room. That's beautiful, you know. (Interview, Luc)

Comparing one experience with another, the contrasting of sensory input makes the experience more intense and meaningful. The warm light that shines through the window is like a welcome invitation when one is walking down the cold and dark driveway.

Luc was also aware that the sound of music influences the experience of his home. That is why he often puts on some music when receiving visitors. Similarly, at Anna's apartment the radio is almost always on. She feels the need "to have something around her." She speaks of it as if the sound is embracing her, as if it is filling the room and making it homier.

Sensory qualities can make outdoor places feel like places of retreat. Anna, for example, loves to sit in the garden at the back of her apartment, because it is a quiet place, away from the busy streets. "It is as if you are at the end of the world," she said.

The fundamental movement of going away and coming back can be realized by contrasting the security that enclosed, quiet, and softly illuminated spaces offer. This might be the reason why Jan and other participants like a living room with plenty of light, space, fresh air, and openness to outdoor spaces. Several times a day, Jan goes for a walk from his private room to the other side of the residential care center to look out of the windows, watch things happen, have a drink in the cafeteria, or read a book in a particular light-filled place with a pleasant couch.

Materials

The materials used to build a house play an important role in assigning meaning to it. Materials are charged with meaning because they are sources of associations and interpretations. Sometimes an association was explicitly expressed by the participants. Anna, for example, said her home does not look like a care center at all. As mentioned, she lives in a service flat that is part of a former *béguinage*, built in the seventeenth century (Figure 5). A part of it has been rebuilt with modern materials that, according to Anna, destroy the image of the former buildings.

Figure 5
The seventeenth-century *béguinage* that houses Anna's service flat.

> And I think it's like, it's something special to live in a beguinage. It's an old building. Yes, that kind of fires one's imagination. I felt at home from the first moment. (Interview, Anna)

An old building has a history. Thus, it is charged with meanings that might seem appealing to someone. In Anna's case, she imagines the beguines who for centuries occupied the place where she lives now. The history of buildings, which is reflected in their materials, can fire one's imagination and, according to Anna, this is an important aspect of living in old age:

> Actually, you start to live in a fantasy when you grow old. You live in memories. (Interview, Anna)

Magda, Luc, and Louise mentioned that they like warm, pleasant, tidy, well-finished, and well-maintained materials. This makes sense, since a home can be considered to be an extra skin around a person. Like a soft and warm blanket wrapped around you, the house should be a pleasant place to retreat to in order to offer the security of a real home.

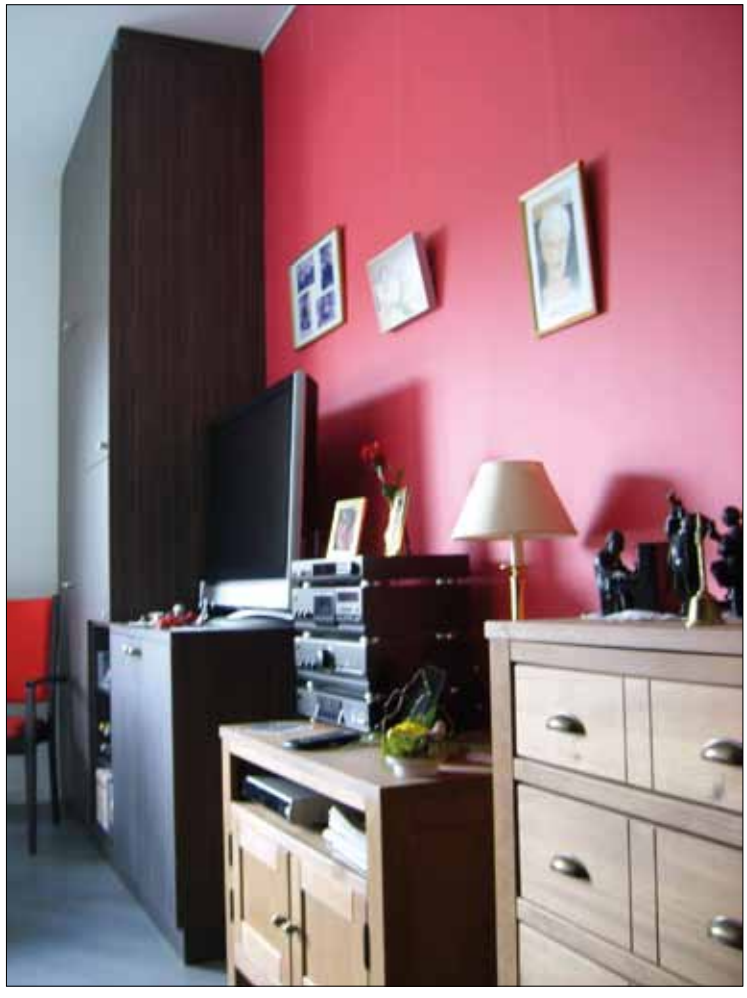

Figure 6
The high, dark brown cupboard in Jan's room is made from laminated fiberboard and therefore fails to communicate a true, authentic image. In contrast, his own solid wooden cupboards give a homey impression.

Jan also made an interesting remark about the laminated fiberboard from which the cupboard in his room is made, disapproving that it is not made of real, authentic wood (Figure 6):

> That wood, that's no wood, it's all … glued. While my own cupboards are all solid […] I don't like that kitchen wood. (Interview, Jan)

Authenticity is an important aspect of assigning meaning to materials. Knowing the origin of a material—genuine wood deriving from trees—and understanding how the material has been worked with—for example, the carpentry skills needed to make a cupboard—makes the material more readable and thus more meaningful. For many natural materials, like wood, it is easier to associate the finished object with the original form than, say, for steel or plastics. Most natural materials

used in buildings remain recognizable, and people are familiar with them. To Jan the laminated fiberboard cupboard fails to communicate a true, authentic image. By contrast, the solid wooden cupboards in the corridors of the building give a homey impression, according to him.

Form, Measurements, and Proportions

Form, measurements, and proportions—of buildings or openings—are a fifth spatial aspect that influences the way spaces are experienced. They have a part in which and how much sensory input a person receives and they orchestrate a person's movement through space (Nylander 2002). An experience of space is always a bodily experience (Madanipour 2003: 16), as is well expressed in the following quote:

> I found that I could breathe here when I entered,... that space,... those high ceilings..." (Interview, Anna)

Form, measurements, and proportions also influence the associations a person makes and thus have a part in meaning-making and the process of appropriation (Nylander 2002). Luc, for example, associates big, rectangular, and monotonous buildings with (ugly) apartment blocks and a way of life he does not like. By contrast, he considers the articulated facade of their apartment more welcoming (Figure 7).

> And here a bit further [in our street] three blocks have been built next to each other. That's really like an apartment block, all those little balconies ... a rectangular façade. I find that, I find that pitiful, yes. While this here is charming, with the little front yard and the form of the façade also, [it] is not so flat, [because] the façade is in relief. (Interview, Luc)

Figure 7
The articulated facade of Luc's apartment gives a welcoming impression.

Figure 8
The residential care center where Jan lives has a gable roof and only two floors. Jan likes that because it looks more like a regular house than a building with a flat roof and several floors.

Jan said something similar. He associates a regular care center with a big, rectangular building with several floors and a flat roof. He finds such buildings a bit frightening. According to him, they are too big, too square, and too many people are living there. The residential care center where he lives has a gable roof and only two floors, making it look more like a regular house, which he prefers (Figure 8).

SUMMARY AND FINAL REMARKS

By drawing on material from empirical research in the homes of older people living in different contexts, the case studies illustrate how the framework that we developed earlier can fit the domestic life of older people in practice. They articulate the role of spatial aspects of the way in which the meaning of home is constructed and they demonstrate how autonomy and security can be reflected in physical space. In particular, the case studies show how different layers, their degree of openness, how sensory qualities, materiality, form, measurements, and proportions of the physical environment may have a role in assigning meaning to oneself and one's environment, and in establishing a dynamic balance between autonomy and security. Moreover, they suggest that the framework is applicable to a diversity of older people and their living environments.

The spatial aspects we described—or elements, form qualities, or attributes, whatever you want to call them—"must be considered simply as convenient empirical categories, within and around which it has been possible to group a mass of information. To the extent that they are useful, they will act as building blocks for the designer" (Lynch 2000: 109). We think that the framework presented offers concepts that may help to refine discourses of designing homes for older people. Moreover, the framework sheds a new light on the design of home environments for people more generally, as younger and

older people are much alike in regard to meaning-making, aging being a continuous process.

Because of the many aspects of physical space and because every experience is a personal one, the design of home environments is very complex. Though it may never be fully clear to us how things acquire meaning for a person, further research may give further insight into person–object relations. As stated earlier, and following Gurney (1990) and others, we still think that combining research approaches from different disciplines will enrich the research outcomes. Furthermore, more extensive empirical research, with diverse samples of people and living environments, may reveal a more articulate understanding of which aspects of experiencing space are personal, age-related, culturally defined, or universal. A particular spatial aspect could be subjected to a more in-depth study on how it colors experience. Also, different types of residential (and care) environments in different places and times could be studied. This could help generating ways for architects to come up with new design solutions for a particular project and to justify their design decisions to other players in the construction process.

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