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Challenging Architecture as We Grow Older

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Abstract: Viewed globally, the lengthening of life spans is an undeniable reality. Although on the subject of the third age's problems, we can speak of a thorough documentation regarding the differences in space perception at this age and the effects of relocation in conjunction with a blurred feeling of home, we are in an early stage concerning the translation of these issues into practice. We try to highlight the best practices and concepts in design issues concerning elderly people, reveal the top references of current knowledge which can and will help both architects and residents to raise expectations in this area. It is also important to identify common aspects that reflect large scale trends and particularities which complete these approaches. This article aims to cover a wide range of situations, from rural to urban centers, assessing a variety of social formations and levels of elderly care; also, are taken into account the differences between projects designed to encourage the interest of residents in different areas and projects focused on remedying people's living impairments. Thus, there is a clear direction in recent years to plan strategies for providing support to older people to live an independent and meaningful life, as much as possible. Space is not only defined by its location, takes on different connotations of spatiality, when is interpreted through human interaction. Globalization, so prominent in recent years, does not have to lead to a uniformity of experience where the personal feeling or meaning of every place is lost. Personal identity preserved and a high degree of sociability can have a positive impact later in everyone's life to maintain a sense of affiliation to a certain social community.

Keywords: Living facilities, age friendly, built environment, social community;

1. Introduction

Both the concept design and construction industry is increasingly pressed to analyze the aging phenomenon in depth and to interpret its direct implications in design and built environment. Despite the comprehensive

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documentation of how physical barriers impact the elderly’s mobility, space perception, relocation effects correlated with the loss of the deep meaning of home, the public awareness of the direct implications of these aspects in the built environment, social care and politics is still in its early stages.

Motivated by the notion of cost or a particular concept of organized system of care, those involved in the senior care industry redefine the traditional notion of continuing care by wiping out the boundaries of the definition of old. The whole methodology of elderly care is thoroughly approached by new programs that allow older people to provide care in their turn. Thus, the sense of utility and identity is associated with a longer period of time (Krause, 2009). Moreover, research has shown that the social involvement of older people increases life expectancy as much as the physical activity. (Glass, Mendes de Leon, Marottoli, & Berkman, 1999).

Nowadays, an increasingly number of elderly people is still working; therefore, the design should go in parallel with this state of affairs, with the elderly actively involved in a broad community rather than segregated in retirement campuses. It can be noticed a great difference between projects designed to stimulate occupants’ capacities and interest, as opposed to disability-oriented design and people’s impairments.

The "individual well-being" trend is coming in the forefront, leading to the design of new conceptual dimensions. Currently, the main idea is to eliminate the barriers of any kind and widen the spectrum of possibilities, aiming for a life with more feelings and experiences.

Also, active living solutions for older people need to be tailored to the social context, traditions and native way of living. A person over 60 years of age will find it difficult to adapt to a new lifestyle. For this reason, universal solutions prove to be ineffective. Each living facilities presented in the following chapters, requires an adaptation to the local spirit.

2. Global and national trends

A new paradigm of disability is currently being discussed, where the disability is generated by the poor interaction between the environment and the user, less regarded as a condition “per se” of the user. In addition, the functionality and ease of interaction between the environment and the user have always determined the quality of an architectural project; therefore, it is essential that those involved in the design process deeply understand the actual implications of aging.

In terms of actions, initiated either by individuals or social groups, aimed at spatial configuring or re-configuring, they are meant to adapt the
surroundings to the needs of the third age; they are either facilitated or hindered by how the social care system is organized and by the general policy, at higher levels.

2.1. Global trends

The most notable trends in this endeavour, addressed to centralized residents, are represented by the household and culture shift models emerged in the early 90’s; the concept promotes the creation of environments that support the emotional and cognitive development of the seniors (Koren, 2010). The household privacy gives a strong sense of belonging to the community by encouraging the active participation of residents and their families in the care process, while making the caregivers aware of the particular needs of those cared for.

Following the same direction, co-housing developments confer social roles on the residents, thus removing the feeling of loneliness and alienation (Jang, Haley, Small, & Mortimer, 2002; Reker, 1997).

Although they do not become the main caregivers of their neighbors, they can relate each others, supporting the idea of aging “in place”.

The aging in place practice is becoming more and more common worldwide (Thomas & Blanchard, 2009), also changing the definition of the continuing care concept. By offering more and more home-based care services for the independent elderly, the overall care costs are reduced, thus increasing the addressable market.

Also, the idea of people identifying with the place where are getting older should not be neglected. Thus, a recurring theme, i.e. to turn spaces into places we identify with, is closely related to the control we have on our lifestyle; places associate with our identity and the feeling of belonging to the rest of the world.

An intact personal identity and a high degree of sociability in the late lifetime can have a strong impact on the individual. Space is not simply defined by the location, but it gets different valencies if it is interpreted through human interaction. The phenomenon of globalization, so pregnant in recent years, should neither make the personal experience linear, nor destroy the identity of places.

Places result from the interaction between people, generating rules that lead to the delimitation of borders; these socially-based spatial boundaries say who does and who does not belong to a place or a lifestyle.
2.2. Active aging in Romania

Demographic decline is associated with social and family consequences: in social terms, the increased number of families, with few children or without children, leads to an increase in the number of elderly without children.

Also, in recent years, migration dictated by economic reasons within the EU's free market has greatly accentuated the number of older people who no longer receive any support. Basically, leaving aside more than 3 million people who have left the country, the percentage of older people has reached a worrying level.

The sociological study, carried out by the National Council for the Elderly, in 2014, on 410 subjects, aged between 60 and over 80, from 35 counties and 6 sectors of Bucharest, concluded that elderly people consider that relationships with family members play a very important role for the quality of their lives and that many of them are making efforts to interact with people and to live in their community, thus highlighting an increased interest for social reintegration within the community (fig. 1) (National Council for the Elderly, 2014).

![Fig. 1 Social study – (National Council for the Elderly, 2014)](image)

The number of residential care facilities for the elderly is insufficient in relation to the number of applicants. As for home care services, the national geriatric network is underdeveloped (National Council for the Elderly, 2014).

In Romania, no programs aimed at preparing for retirement and identifying the elderly people’s possibilities of maintaining an active life and significant social involvement have been developed. From this point of view, home care could gain new valencies, including social reintegration programs along with the social-medical and medical care ones.
3. European examples and options

Starting from the 5 major types of facilities identified, we propose a review of the most notable achievements in the field to support architects and customers in their endeavours.

The 5 major types of facilities are: (The American Institute of Architects, 1985)

- Elderly housing
- Senior/community centers
- Residential care facilities
- Nursing homes
- Continuing care retirement communities

Case studies cover a wide range of situations, from rural to urban areas, analyzing a variety of social groups and ways of eldercare. For this purpose, we identified the common aspects that reflect the global trends and their related unique features.

3.1. Elderly housing

The first category, and probably the most popular option, refers to all types of independent or semi-independent housing where residents can generally take care of themselves without medical supervision. In these cases, the activities of the elderly are similar to those of the young, the only differences being related to the size of spaces, finishes and interior lighting. (The American Institute of Architects, 1985)

We can mention here the Stay-in-place option: the negative aspect is that the dwelling is inadequate for the age of the residents, but the advantage is that they remain in the community they have lived until.

Homeshare is another option, i.e. sharing the home with younger people, with the benefit of building a bridge between generations and the disadvantage of lack of privacy (if such a situation was not taken into account in the project phase). In the Netherlands, such a program is called the “kangaroo” house.

The third option is Living with a younger family member. Although rare, this concept is still promising to develop in the future. An extension for older people or even an apartment annexed to the property might be a viable solution, without affecting the independence or privacy of the elderly person. In addition, it offers grandparents the opportunity to get involved in the family life.
The fourth option is the **cohousing**. Cohousing is a lifestyle, a popular option in the modern world that offers people privacy, independence and individual residences within a housing compound. Individual projects vary, but in all situations, residents share a common space that is organized and managed by the group itself. It is a means of staying socially active, sharing common interests and providing mutual support.

In 2002, a group of four women from St. Gallen, Switzerland, converted a former embroidery factory into “Solinsieme”, a 17-apartment building and common areas (kitchen / living room / meeting room, one laundry room and a community space) (image 1). This housing cooperative project combines two words of Italian origin: “solo” and “insieme” (alone and together), thus forming a new word, “solinsieme”, which defines the nature of the project. (Best & Porteus, 2012)

The founders, who started the project when they were about 50, want to share as many years as possible together, preferring to take care of each other rather than to rely on institutional forms of social care.

![Image 1](http://sieplcoatesstudio.weebly.com)  
**Image 1** “Solinsieme”

### 3.2. Senior/community centers

The second category is represented by the primarily neighbourhood facilities and reflects the features of their inhabitants. These centers provide various services (banking, pharmacy), as well as places for socializing, interaction, events, counselling. (The American Institute of Architects, 1985)

“Darwin Court”, London, built in 2007, is a mixed-use 7-storey building and an attractive community hub, a good example of community integration, promoting a healthy lifestyle for the elderly (image 2). It is designed for those with general needs, with 76 apartments for rent, of which 16 apartments for residents with physical disabilities, and common facilities: café, restaurant and swimming pool (also open to the local community) (Best & Porteus, 2012).
3.3. Residential care facilities

The third type provides a certain level of care to those who cannot live an independent life, but do not require permanent medical care, as a residential complex that includes private or semi-private housing units, a centralized meal service, support for personal activities (bathing, medication, etc.). This model is specific to the social welfare field, unlike the nursing home, which belongs to the medical one.

“De Rokade Tower”, the Netherlands, was built in 2007, targeting the young seniors as beneficiaries, it offers a wide range of accommodation types, including day care and medical care, social rented sheltered housing and a kindergarten (image 3). The most prominent element of the complex is the 74-apartment tower, the complex containing commercial facilities and common areas. (Best & Porteus, 2012)

“Andritz Residential Care Home” at Graz, Austria, finished in 2015, is an example of a sustainable building that houses 105 residents (image 4).

The two-storey building consists of four wings arranged around a semi-public "square" designed to accommodate various events. The compound also hosts an oratory, a café, a hair salon and an atrium.

Each of the three residential areas hosts a caretaker and 15 residents (initially single rooms), thus creating a friendly atmosphere. The ground
floor provides a large common living area for each residential group, large loggias and gardens, some of which are suitable for patients with dementia, with additional work areas. Special attention has been given to ensuring natural light throughout the building. (Best R. & Porteus J., 2012)

Image 4 "Andritz Residential Care Home" (http://www.archdaily.com/787044)

3.4. Nursing homes

The fourth category provides long-term medical care and serves elderly people who can no longer work in autonomous environments and require continuing medical care, the option with the highest degree of institutionalization.

“Gradmann Haus” in Stuttgart, Germany, was designed as a "village street" dedicated to persons with dementia, 24 apartments on the ground floor, organized in 2 loops connected to a dedicated area for social activities and 18 apartments for the partners of the people accommodated here, on the 1st floor. The design took into account the fact that people with dementia want to move around and explore the surroundings and focused on wide open spaces with splendid views toward the garden (image 5) (Best & Porteus, 2012).

Image 5 “Gradmann Haus” (http://www.demenz-support.de)
“Nursing Home”, Paris-2015, a former railway enclave, has become a multi-functional intelligent program (nursing home, social housing, apartments, religious centre, and small retail) (image 6).

The nursing home is located right in the center of the building, allowing its residents to live in the heart of the "city" and benefiting from its vitality, the strong point of the design is the restaurant, with a strategic position connected with the two vital functions of the city: space and rhythm. (Best & Porteus, 2012)

![Image 6: Nursing Home](http://www.archdaily.com/787877)

“Nenzing Nursing Home”-2014, Nenzing, Austria, was developed following a European competition organized by the city of Nenzing, the result consists of two different residential units merging to form a single building (image 7). Each unit has eight to ten apartments, built around a central area for daily activities that opens on two levels – an atrium “garden”. The central location of the living area allows easy access for both residents and staff. The natural materials, natural light that enters the atrium create an easy, ethereal path, the flexible design provides the grounds for an extremely functional construction with passive standards and technologies, it is a pleasant interface between “home” and contemporary architecture. (Best & Porteus, 2012)

![Image 7: Nenzing Nursing Home](http://www.archdaily.com/547190)
3.5. Continuing care retirement communities

The last category offers a wide range of services and facilities designed for the elderly, allowing residents to live an independent life, taking care that long-term social, residential and medical aspects are covered by the available care staff. Generally, the target beneficiaries of this model are relatively active and healthy people.

Pre-selected for the 2013 Mies van der Rohe Awards and built in 2010, the “Alcacer-do-sal-residence” luxury sanatorium, located south of Lisbon, is designed as a wall that separates from the hill to the back and follows a sinuous course that gives birth to a series of outdoor spaces (image 8) (Best & Porteus, 2012).

According to the architect Aires Mateus’s presentation of this project:

“It is a program, somewhere in between a hotel and a hospital, that seeks to comprehend and reinterpret the combination social/private, answering to the needs of a social life, and at the same time of solitude….. The reduced mobility of those who will live in the building suggests that any displacement should be an emotive and variable experience. The distance between the independent units is measured and drawn to turn the idea of path into life and its time into form.”


4. Conclusions

It is certain that, in the future, we all want to enjoy a life as long and as complex as possible, from all points of view. We can talk about a close interaction between the built environment and its user, knowing that the environment, through its configuration, may cause anxiety or comfort, it may affect the state of independence of elderly people. For this reason, it is essential to make sure that what we are building today can support a healthy lifestyle in the late life, too.
We can draw several conclusions on what we want from our homes in the future:
- we want a home that allows us to conserve the same lifestyle as we grow older;
- we look for safe, healthy and attractive environments that can be adapted to our changes, if our care requires more attention and support;
- we want to feel that we have control over our lives and we can make our own decisions;
- we want to continue to feel useful within society.

For most people, whether involved or not in the design field, designing a space for the elderly limits to providing standard dimensions for wheelchairs and equipping the home with grab bars. This attitude has a negative impact on the society's perception of older people, suggesting that they are just fragile and dependent.

From a social and economic perspective, the care for the elderly could gain new valencies, including social, entertainment, cultural or sports programs, along with the social-medical care and healthcare ones.

The recommendations of the World Assembly on Aging propose a series of measures aimed at developing home care and services, promoting access to health services, improving measures to prevent dependency, diversifying services to prevent or combat the risk of social marginalization or exclusion, and increasing the quality of life of the elderly.

References


