reactive proactive architecture

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UNIVERSITAT POLITÈCNICA DE VALÈNCIA
ESCOLA TÈCNICA SUPERIOR D'ARQUITECTURA
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CHAPTER #3.03

ARCHITECTURES FOR THE IMPROVEMENT OF LIVING CONDITIONS IN THE THIRD AGE

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1. Introduction

The habitat we live in, its spaces and the environment conditions, represent in a larger proportion one of the most important and indispensable emotional states in which people acquire multiple perceptive aspects. Consequently, architecture and the design of spaces, light, colour and other environment conditions generate different sensations according to the activities performed in our everyday life (Torres Barchino et al., 2018).

To humanise and to achieve a more liveable environment is a necessary condition to help to improve the well-being and the quality of life of people. It is evident that, in recent years and for the next decades, population age will continue increasing; ageing will accelerate and will become more intense. According to the last studies carried out in Spain since 2016 by the Institute of Social Services and the Elderly (Instituto de Mayores y Servicios Sociales – IMSERSO): *To support and to improve the quality of life of older people is one of the main challenges that raises the process of ageing.* (IMSERSO 2016).

For this reason, this research study aims to share and to reflect upon built architecture targeted to people whose situation of dependence has been increasing in our society (Figure 1). During the Project[1] process, several architectural existing typologies have been analysed both at European and at national level, as well as the specific characteristics of the spaces where residential everyday life takes place.

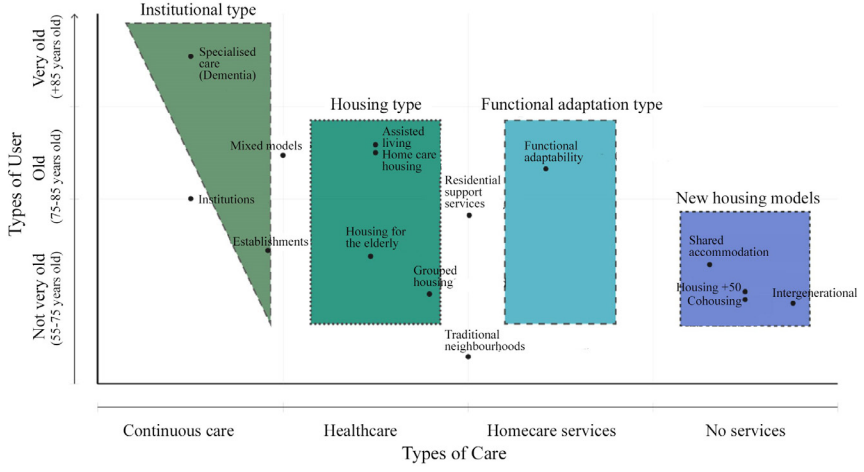

Figure 1. Summary of the European existing housing models and their location depending on the type of user and the care needed. Source: (Sancho et al., 2017)

[1]I+D+i Project called "MODIFICATIONS ON VISUAL COMFORT IN RESIDENTIAL CENTRES TO IMPROVE THE QUALITY OF LIFE OF OLDER PEOPLE", reference BIA2016-79308-R. (Acrónimo MODIFICA), of the State Program for Investigation, Development and Innovation orientated to Societal Challenges, in the frame of the State Plan for Scientific and Technical Investigation and Innovation 2013-2016.

The existing residence models at present happen to be a list with different nuances that can be identified as: day-care centres (as a type of home); residential care services; residential homes and housing for older people. Public residential homes are the ones where more architecture-related deficiencies are found. Therefore, it is urgent to raise the issue of performing a series of modifications and alternatives more in line with the current needs of the different stages of life depending on the type of user. Likewise, we must take into account other existing experiences in view of the immediate need to project thinking about the future of our society (Delcampo Carda et al., 2016) by making progress in architectural design and in innovation to obtain a more suitable evolution.

2. Historical analysis

Before the existence of the current residences, the permanent attention centres for older people were the so-called "asylums". In other words, institutions that are part of a period of time whose role was "to provide shelter, guard and seclude" to people with heterogeneous needs, so that, at the same time as they were giving response to certain individual situations, they were trying to solve global issues of the society such as begging and vagrancy.

The beginning of the first building model aimed for older people known dates back to the 19th century. At European level, it is during this time when the so-called institutional models can be found as the evolution of former asylums and houses of charity, which provided healthcare and housing at the same time (Lantarón, 2015). Nevertheless, in Spain, at the beginning of the 20th century, we can only find isolated examples of these institutions for older people. In fact, these were institutions run by religious orders where older people, diverse mix of people with special needs, and orphans all lived together. Similar to the rest of Europe, these institutions were based on charity. It was after the Second World War when religious orders started to specialized in the field of the medicine (Barenys, 1992), stepping forward in the evolution of these kind of institutions influenced by the Modern Architecture. "Outdated institutions are enlarged with modern buildings full of light, ventilation and views where the infirmaries are located. Therefore, institutional models are renovated as models that gather the postulates of the Modern Movement, at the same time as they inherit the offer of housing and healthcare" (Lantarón, 2015, p. 86). They are no longer managed and attended just by religious people but by the Public Administration too.

The 1960s were characterized by the increase in the development of promoters' housing associations, which began to be interested in this field due to the available subsidies to construct and to manage housing for older people (Cabrera Fernandez-Pujol, 1993). During the next 20 years municipalities and local promoters' housing associations contributed with most of the housing units for older people.

In the 1990s, the large-scale construction of residences for not dependent older people started to boom in Spain; buildings were constructed in the urban environment to favour the interaction with the cities' resources. This architecture, currently present, is based on hospital and hotel models. The former "asylums" started to transform in new "residences" in order to achieve a change of mentality and overcome existing prejudices in the matter.

Nowadays, residences are conceived as centres of community services that, unlike asylums, seek to include older people in society, avoiding maladjustment and rootlessness (Ministerio de Sanidad Servicios Sociales e igualdad et al., 2012).

3. Current residence models

As we have seen, the institutional model targeted to dependant older people is linked to the final periods of life, as well as to the high need of help.

The following paragraphs describe the evolution of architectural residential models for older people at national level from their beginning until the present day. To do this, we will base our work on the chronological development elaborated by the KDA (Kuratorium Deutsche Altershilfe), Germany, that has been adapted to the current spanish system.

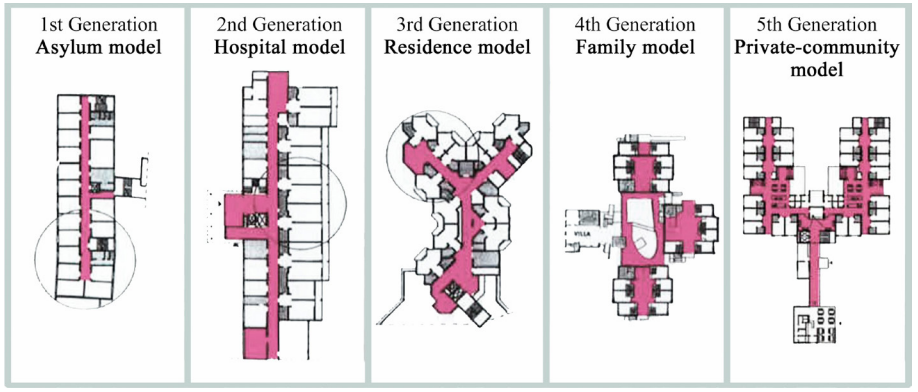

Figure 2. Chronology of residential models. Source: (Ministerium für Gesundheit Emanzipation Pflege und alter des Landes Nordrhein-Westfalen und alter des Landes Nordrhein-Westfalen and Kuratorium Deutsche Altershilfe (KDA), 2012)

This is a sequence that enables us to understand the architectural conditions that have determined the development of spaces intended for the care and well-being of older people:

Figure 3. From left to right: A. The Asylum-Hospital of San Juan de Dios 1907, asylum model*. B. Residence for the elderly in Manises, Valencia,* hospital model*. C. Lledó Residence for the elderly in Castellón,* residence model*. D. Residence project "Etxean Ondo Residences" co-living units, Lamourous Gerontological Center, Matia Foundation of San Sebastian,* family model*. E. Cohousing in Torremocha de Jarama, Madrid,* private-community model*.*

As mentioned previously, the first architectural reference corresponds to the asylum model. This model is characterised by high resident occupancy, as it is designed with a succession of rooms that can accommodate the maximum possible number of people. Bathrooms are shared and there is scanty presence of common and working areas. There is also a minimal healthcare team. All of this results in a sober and rigid architecture; architecture that is projected as a "shelter".

As the second generation we can find the hospital model as a response to the deficiencies of the first generation. This model organises shared bedrooms for two or more people along long corridors that occasionally share common centralised areas. It is specialised in the field of the medicine and geriatrics and the resident is treated as a "patient". Architecture is projected as a "place of healthcare", characterised by its impersonal and hospital design. At present, it can be considered the predominant residential model in Spain. Nevertheless, the actual awareness of the importance of the habitat points to the need of more advanced residential models.

The residence model, as the third generation, corresponds to a renewed architecture, with a more elegant and defined distribution in order to improve the spatial quality of the residents, by introducing the idea of a "home-loving design". A more private architecture is promoted by reducing occupancy and by having a higher proportion of habitable space favouring personal independence. Architecture is projected as "place of residence". In this way, a dual functional perspective begins considering gerontology and housing. In Spain, the interest in moving forward this model is currently growing, especially in the private sector.

As the fourth generation model we find the family model, a person-centered architecture, focussed on the resident. Its design is getting increasingly closer to a home, in contrast to the healthcare or hotel model. For this purpose, spaces are designed with domestic dimensions and are organised in "co-living units" with a capacity between 10 to 20 residents. Every co-living unit combines "public" spaces with private ones, which have individual rooms with bath, and common areas for every unit. This model is widely spread in Europe; however, despite the growing interest in this matter in Spain in recent years, it constitutes a less common model.

Finally, the fifth generation model: the private-community model is a residential model that consists of private dwellings or apartments adapted for older people, in which it is possible to live individually, with a partner or in group. Common areas are designed as an extension of dwellings within the urban complex. These include: services, social and leisure activities, dining rooms and, in the end, community life, and, in the case of Spain, through cooperatives. The resident plays a more active role and person-centered integrated care prevails. Various examples of this are: apartments with services, some housings with this type of care, or, the new residential model of 'self-managed' communities called "Cohousing", which is very common in USA and European Countries like Holland, Sweden, France, Germany, Denmark. At national level, there are specific initiatives of developing this architectural typology, still they have started to become established.

The different architectural environments and new designs of spaces in other European cities, enable comparison with Spanish residential architectures. As we can observe in the comparative chart of the different existing models of housing in different countries, not many typologies coexist at present in Spain; the predominant ones are residences of second and third generation.

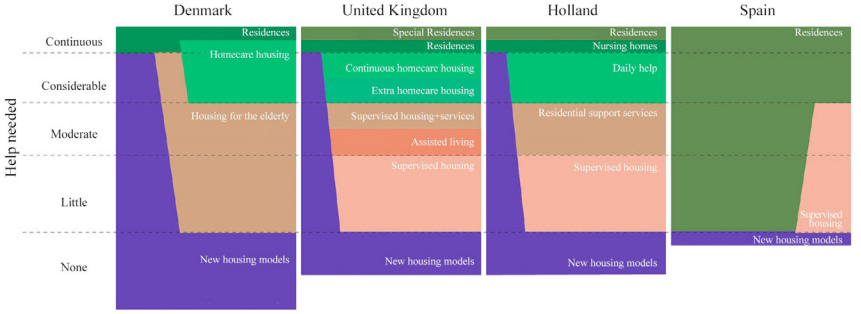

Figure 4. Comparative chart showing the different existing models of housing in different countries. Source: (Sancho, 2017)

4. Conclusions

As we can see, this architectural development expresses, according to every period of time, the necessary design aspects for each generation depending on its needs and the type of architectural spaces required.

The study of physical spaces generated for meeting the real needs of the activities of such a vulnerable group, everyday life and the relationship with the contemporary city are the basis to do so.

The present Research Project, currently in force, addresses and delves deeper into the need to look for alternative solutions focussed on the improvement of environments for personal independence, as well as the research of models which offer worthy environments to live in and that meet needs of such a vulnerable group.

This research provides a results preview in which an initial classification of architectural models depending on the historical period and the environment requirements demanded by the development and evolution of active ageing awareness stands out.

It is an architecture that leads to cohabitation groups where the idea of an elderly society is under debate and that delves deeper into the need of creating friendly architecture focussed on the individual, as well as in the need to be able to choose where to live.

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