

Aging Society in Wroclaw's Prefabricated Housing Estates

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Abstract. The paper presents following researches: study the social transformations in selected prefabricated housing estates related to the aging of the society (age structure, family status, physical fitness), conduct social research on the elderly in selected prefabricated housing estates (household structure, family status, physical fitness, assessment of physical activities, leisure activities).

The studies conducted in one large prefabricated housing estates in Wrocław – Szczepin to meet the needs of aging society.

In the 1970s and 1980s the prefabricated housing estates were in the first social cycle. They were inhabited by young people, most often families with small children. Once they became adults, the children moved out, leaving their aging parents in these dwellings. Therefore, today, these estates are mostly inhabited by the elderly, who are often lonely. This is the second social cycle of these estates. As a result new problems emerged related to the needs of this particular group of tenants/inhabitants, which had not been taken into consideration when these housing estates were being designed.

Keywords: Design for aging · Quality of life

1 Introduction

Considerable part of the Polish society lives in prefabricated housing estates, commonly called “bleak housing projects”. 1970s and 1980s were the “Golden Period” of large panel construction in Poland. With time, such housing estates were affected by ageing. Along with the age of housing estates, the advancing age of its occupants resulted in change of their social structure. In 70s and 80s the estates were inhabited by young people, mostly families with children. Having grown up, children moved out of these flats and left their ageing parents alone. That is why these housing estates are mostly inhabited by elderly people who often live alone. As a result new problems connected with addressing the needs of this particular group of tenants/occupants emerged. Analyses presented in this study continue my over ten-year research of problems inherent for prefabricated housing estates. Despite constantly growing number of new flats, prefabricated housing estates are still home to a large portion of population in Poland (approximately 12 m, which amounts to about 30 % of the entire population). It should also be mentioned that these buildings are not in such a bad technical condition as the media or press seem to suggest in broadcasts and articles,

which has been confirmed by research conducted by the Faculty of Civil Engineering of the Wrocław University of Technology. The fact that occupants of prefabricated housing estates get older and their needs keep changing with time is an important aspect of this study.

The aim of this study is to show social changes resulting from ageing of the society and taking place on prefabricated housing estates. Therefore an important aspect of the project is to conduct social research and evaluate the quality of the environment in which elderly people live, and then to select solutions which can improve their quality of life based on their real needs and their psychophysical abilities. Social psychology shows close relationship between a human being and his/her living environment. Maslow's or Gehl's theories are well known. According to Maslow, human motivation changes as needs are satisfied at each subsequent level of personal development. Human needs are hierarchical in nature and thus need to be fulfilled in a given order: first fundamental needs have to be met in order to effectively meet the higher needs. The most fundamental needs are physical requirements for survival: need of food, shelter and clothing. Safety needs, which come second, take precedence when the first are relatively satisfied. A man in extreme hunger (need for survival) will primarily think of food, and only after satisfying this hunger will he turn to the higher need of safety. Once physiological, financial and emotional safety is present, the need of belongingness and love emerges. Man is a social being and needs to feel loved, liked and accepted by others. The fourth in the hierarchy is the need of self-esteem, related to self-respect, whereas the need of self-actualization is at the top. On the other hand, the Danish psychologist J. Gehl, who also deals with similar issues, identifies three other types of needs that should satisfy the occupants, which are as follows: the feeling of safety (home, protection from pollution and noise, safety of communication), physiological needs (rest, food, drink, sleep, air, light, hygiene), psychological needs (contact, belonging, orientation possibilities, identification).

It can thus be concluded that there is a close link between the quality of residential environment and the quality of life of the elderly. It is evident that satisfaction of people with their place of residence is closely connected to specific requirements related to age. Therefore it is important to learn about all the problems and aspects related to the ageing process.

Analyses show that the Polish society will keep getting older and older. The topic is also more and more popular with the media. Therefore, the needs and abilities of this particular social group should be closely investigated. The issue is very complex as it combines many problems. Dealing with the issue of the elderly in Poland is connected primarily with establishment of Polish standards of conduct, since economic, social, philosophical and religious situation differs from solutions worked out in the West (and for this reason they cannot be adopted directly in Poland). For many years Western European countries have developed a model of retirement homes, which are very popular there. Yet, Polish reality is different than in the West. It must be stressed that not all elderly persons will end up in retirement homes. They are too expensive or offer poor living conditions. Most of today's retirement homes can be commonly labelled as "dying homes", where the elderly end up not of their own volition, but are most often placed there by their families. Such facilities are in poor condition and the housing conditions make the elderly feel lonely, abandoned and often ill.

It must be stressed that majority of elderly persons does not want to move out of their homes. Therefore they should be allowed to live in their previous residential environment as long as possible. It is even more important since research shows that one of the conditions for good physical fitness in old age is being independent. Such independence is possible primarily by owning and taking care of an apartment, which makes us feel “at home”. People say that “old age is not designed properly”, but it comes to all of us and we should already start thinking about the conditions in which we want to spend the last years of our lives. That is why any voice that promotes dignified ageing and shows how to live and spend leisure time is worthy of attention.

Conducted research shows that initiatives must be directed at three fundamental issues:

- improvement and adjustment of residential environment to changing needs,
- education of the elderly at various levels, taking into account their actual abilities,
- broadly defined encouragement of the elderly.

2 Old Housing Estate – Old Person

The housing estate selected for analysis is Szczepin – the estate erected in 1970’s with the use of large panel construction technology. The analysis includes historical context, cultural environment and architectural and urban solutions, including location, basic parameters, land development and its morphology. Social structure, types and possibilities of leisure activities were also subject to analysis. Investigating the structure of housing estate with regard to the elderly, their needs and ability to adjust to the needs of this increasingly numerous group of occupants is also an important element of research (Table 1).

Table 1. Analysis of prices of flats in the resale market, Szczepin north

Localization	Size	Number of rooms	Year of erection	Price
Zachodnia str.	55 m ²	3	1970	5 436 PLN
Zachodnia str.	39 m ²	2	1970	6 138 PLN
Poznańska str.	49 m ²	3	1972	5 680 PLN
Mł. Techników str.	39 m ²	2	1970	6 128 PLN
Mł. Techników str.	48 m ²	2	1970	6 653 PLN

The profile is based on analysis of the real property market performed with real property agencies and shows that 40 % of their current turnover includes flats on prefabricated housing estates. Surprisingly, these flats are not as cheap as one might assume. In Wrocław the average price of a prefabricated flat built before 1990 is lower in comparison to new flats, but the difference is only about PLN 300–400 per m². What is more, in some cases the prices are higher than the average price of flats in the resale market. The price analysis was performed for flats located at the prefabricated housing

estate subject to research, located in the western area of Wrocław. The buildings were erected in the period from 1970 to 1980.

The above analysis of prices of flats in the resale market suggests that they are very similar to prices of flats in the primary market (development flats). It gives rise to questions about the grounds for such “attachment” of the Poles to “prefabs”, since popular opinion about such estates suggests their attitude should be quite contrary. Given these data, one should take a closer look at the location of such housing estates within the city, their communication links, quality and proportion of green areas, availability of services as well as architectural and functional solutions for the buildings and urban planning solutions.

3 Szczepin North

3.1 Location of the Area, Basic Parameters

The area is located within Stare Miasto (Old Town) district. It is quite close to the city centre, 2 km from the Old Market and about 800 m away from the outbound route to Zielona Góra. Boundaries of the estate are outlined by Zachodnia Street in the south, Młodych Techników Street in the east, Ścinawska Street in the north and Poznańska Street in the west. The analysis covers real properties with total area of 8 ha (400 m × 200 m) and occupied by 3000 people.

The area is located in the western part of the Old Town. It is adjacent to residential areas in the south, recreational facilities in the east and west, and educational facilities in the north (Figs. 1 and 2).



Fig. 1. Plan of Szczepin North.



Fig. 2. View on the estate, Szczepin North

3.2 Cultural Environment

Cultural context of the estate involves facilities located in its direct proximity:

A. brick building of the Complex of Schools No. 18. The building was erected in 19th century in accordance with assumptions of neoclassical architecture. The school consists of two 4-storey buildings (A and B). The area between the buildings is filled

with greenery. During Spring and Summer the area makes a perfect place of relaxation for students during their breaks. Complex of Schools No. 18 combines Junior Secondary School No. 37 with classes specializing in sports (swimming, handball, athletics, judo) and classes specializing in mathematics and IT with Secondary Technical School of Mechanical Engineering No. 3, providing its students with education in the following specializations: mechanical technician, electrical technician and mechatronics technician. The school has over 60-year history. It has signed contracts for long-term cooperation with such enterprises as Pneumat System Sp. z o.o., Viessmann, Ruukki Polska Sp. z o.o., Volz Gruppe, ABB in Poland, Elektrotim S.A. and Wrocław University of Technology. The cooperation is aimed at better conditions of vocational education. The facility can boast thousands of graduates, including distinguished representatives of technical, academic and political elite of the city. It provides its students with conditions for comprehensive development and thorough education in particular areas of specialization within particular types of schools. It owes its potential to professional teaching staff and modern equipment. Its back-up facilities include multimedia room, computer rooms, Multimedia Centre with 24/7 Internet access, gyms equipped with electronic running track, complex of courts for team games (including 350-m running track, the long jump runway), lecture theatre, Multimedia Information Centre and a rich film library. Security within the facility is ensured with vision monitoring system. Both, the library and the reading room are properly equipped and student-friendly. Numerous student and school events are held at the school "Icarus" Club. Both buildings have their own cafeterias which offer rich selection of hot meals.

B. Christ the King Church – Roman Catholic parish run by the Society of St. Francis de Sales. The building of the church from 1971 has been designed by a famous architect, Witold Molicki. Construction of the church took a long time and it lasted from 1978 to 1991. It is a distinctive and recognizable spot in the neighbourhood as well as the city. Apart from the church itself, the building houses the Dominic Savio Private Salesian Grammar School. It has been designed as two-level structure. The upper level houses the church, the lower level houses the monastic chapel. Form of the building is a reference to regular pyramid made of four parts (each part makes $\frac{1}{4}$ of the pyramid) with various heights. Projection of the church is an example of central layout and it is based on the square. The ceiling is decorated with a structure resembling a crystal whereas the space above the altar is filled with the sculpture of Christ the King by R. Zamoyski.

3.3 Development Morphology

The estate was created by W. Molicki. Spacial structure of the estate is dominated by multi-family development areas. They consist of middle-rise and high-rise buildings erected mostly with the use of panel slab technology and fitted with external thermal insulation to a large extent. The estate is not fenced off which makes it easily accessible. Moreover, it has a network of paths across the greenery which allows its occupants to move about freely and in pleasant surroundings. The analyzed area has compact, rectangular layout divided by Litomska Street into two, clearly defined parts with transparent urban development.

Analysis of the estate in terms of urban development shows the following:

- The estate is friendly and receives positive opinions from its occupants.
- It has transparent layout with clearly designed, green, enclosed interior spaces and good proportions taking human scale into account.
- Parking space is separated from recreational areas (Fig. 3).



Fig. 3. View on the estate, Szczepin North

3.4 Communication

Analysis of communication within the housing estate shows the following

- The existing roads provide good connection with the city center and other parts of Wrocław.
- Thanks to convenient connections with outbound and bypass roads getting out of the city is quick. Difficulties in communication result from heavy traffic at Legnicka Street during rush hours but occupants can avoid this route by taking one of two neighbouring streets with lower traffic congestion – Zachodnia and Długa.
- The nearest bus and tramway lines (500–800 m away) provide its occupants with direct access to 20 % of the entire area of Wrocław.
- Convenient location of bus and tram stops which can be found no further than 500 m from one's place of living.
- Significant shortage of parking space is visible within the estate despite outlined parking lots and garages, which forces its occupants to park their vehicles with violation of traffic regulations (on pavements, lawns and greens).
- Shortage of bicycle lanes, especially within internal area of the estate.
- Poor quality of pedestrian routes which are unaesthetic and have no amenities for the disabled.

3.5 Recreational Areas and Greenery

Analysis of the estate with regard to recreational areas and greenery shows the following:

- The housing estate has sufficient quantity of recreational areas within public space and its occupants are glad to make use of them.
- Very large recreational areas are available within its semi-public space (quarters of the estate's developments). Yet, the area does not necessarily correspond with the quality. The areas are rather untended.
- Considerable part of the estate is filled with greenery (including high, middle and low vegetation). Sadly, it is usually far from tidied up or well kept - lawns are trampled down, choked with weeds and not mown.
- Elderly occupants are very eager to make use of recreational areas.

3.6 Social Infrastructure

Analysis of social infrastructure of the estate shows the following:

- The estate has good access to a number of facilities, especially educational ones, which can be enjoyed by the elderly, e.g. swimming pool at the school.
- Availability of commercial services is rather limited.
- The estate can boast a social club which is available also to the elderly.
- Catering services are missing and it takes a long walk to other areas of the estate to find them, which is a serious drawback for those elderly who prefer to eat out.
- Not all services are accessible for the elderly and disabled. Some facilities are located on higher storeys which are accessible only by stairway (no wheelchair access ramps, lifts or platforms).

3.7 Technical Condition of Buildings and Infrastructure

Technical condition of buildings can be qualified as average. Residential buildings have been erected with the use of Wrocław Panel Slab technology:

- All buildings are supplied with central heating (municipal network), water and gas.
- Some flats are equipped with air conditioning systems. Yet, such systems are private investments and air conditioners are installed on balconies and exterior walls which affects aesthetics of the building in a negative way.
- 5-storey buildings have no lifts whereas 11-storey buildings have been equipped with such facilities.
- All buildings have undergone thermal performance improvement.
- Majority of flat owners replaced old windows with new ones.
- Most staircase entrances are accessible for the disabled.

3.8 Demography

Large proportion of occupants are persons over 60 (about 40 %). These people have been living on the estate from its beginnings. They moved into their flats as young couples and have been living there until today.

At the beginning of 21st century, after 2006, a considerable number of young people appeared on the housing estate. It resulted from the onset of new financial programme called RnS (A Family in its Own Home). The programme enabled families to take advantage of preference mortgage loans. During that period many young couples purchased flats on this estate as they were relatively inexpensive and rather small whereas proximity of recreational areas and educational services made (and still makes) it a perfect location for young couples with children. They can be seen within recreational areas on a daily basis.

3.9 Accommodation Options

The estate offers accommodation in a variety of dwellings, from studio apartments to four-room flats. The estate has been developed with 4 types of buildings: 11-storey buildings with staircases and corridors and 5-storey buildings with staircases, housing 2 or 3 flats on every storey. Despite the fact that the estate has been designed and erected with the use of industrial technology, structure of flats is diversified. It results, among others, from diversified size of individual units.

4 Swot Analysis for Aging Society in Szczepin Housing Estate

Strengths.

Urban planning aspects	Architectural and technical aspects	Social and economic aspects
Good public transport solutions costs	Technical installations available in flats	Relatively low maintenance costs
Large number of basic services	Functional flat layouts – well-planned	Knowing one's neighbours and strong social bonds within the community
Proximity of recreational areas and sports facilities	Flat sizes – usually adequate for couples or single persons (2- and 3- room flats)	Availability of co-financing from EU funds
Considerable size of areas filled with greenery	–	–
Significant amount of space	–	–
Good local infrastructure	–	–

Weaknesses.

Urban planning aspects	Architectural and technical aspects	Social and economic aspects
The housing estate has not been adjusted to the needs of the elderly – numerous obstacles	No lifts in staircases of 5-storey buildings	No funds for renovations and modernizations
No solutions for bicycles	Staircase entrances have no access ramps or railings – obstacles	Migration of the young from this type of housing estates
Insufficient amount of parking space	No benches or bicycle parking racks near staircase entrances	Being used to living in the same place
No separate parking space for the disabled	Flats do not match the needs of the disabled (wheelchair users)	Housing estates with majority of elderly occupants
Various condition of the Greenery	No common areas inside buildings	Flats rented temporarily to students
–	No private gardens	–

Opportunities.

Urban planning aspects	Architectural and technical aspects	Social and economic aspects
Housing environment advantageous for the elderly	Flats adapted for the elderly – after modernization	Winning EU, municipal or special purpose funds
Construction of additional buildings for the elderly within the estate	–	–

Threats.

Urban planning aspects	Architectural and technical aspects	Social and economic aspects
Introduction of buildings made by property developers (fenced off estates) on the estate can lead to uncontrolled congestion of development	Without renovation and adaptation technical condition of buildings will deteriorate	Loneliness caused by absence of contacts with the surrounding world (obstacles)

5 Summary

A considerable proportion of the Polish society lives on housing estates from 1970s erected with the use of panel slab technology. Despite constant warnings pertaining to poor quality of materials, standardization of solutions and flat sizes, such estates still hold positive opinions of their occupants. Analyses conducted in this study confirm such opinions. Location of such housing estates is one of their major strengths. In many cases such estates are located nearby city centers and benefit from good public transport solutions. Another essential element affecting the quality of living is proximity of broadly defined services, including trade, education and recreation. The estate analyzed in this study can boast services at a level higher than satisfactory. It is distinguished by large areas filled with greenery as well as recreational, relaxation and sports facilities. One might say that it makes a good place to spend one's free time. Yet, the issue of the elderly is an important aspect of further advancement of this type of housing estates, as they keep growing in number and their living environment has not been adapted to their needs. Some financial outlays might improve quality of life by introducing a number of solutions that would make life of the elderly and disabled easier and more comfortable. Such solutions can be divided into the following groups:

a. Adjustment, b. Adaptation, c. Intensification, d. Reduction, e. Cohousing.

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