

URBAN DEVELOPMENT OF CITIES IN THE 21st CENTURY IN THE CONTEXT OF THEORY OF AGING

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Abstract

This paper refers to the attempt to explain the processes of societies aging through a combination of research practice and theory. Cities wishing to pursue the idea of sustainable development should respond to the new challenges they face, including the society aging. The aim of the author is to identify the main directions of urban development in the twenty-first century in relation to the theory of aging which originated from various scientific disciplines.

Streszczenie

Niniejszy artykuł dotyczy próby wyjaśnienia procesów starzenia się społeczeństw poprzez połączenie praktyki badawczej z teorią. Miasta chcąc realizować ideę zrównoważonego rozwoju powinny odpowiedzieć na nowe wyzwania przed nimi stojące, między innymi proces starzenia się społeczeństwa. Celem autorki jest zidentyfikowanie głównych kierunków rozwoju miast w XXI wieku w odniesieniu do teorii starzenia się wywodzących się z różnych dyscyplin naukowych.

Keywords: Society aging; Land use planning; Spatial development; City planning; Urban renewal; Demographic theories; Sociological theories; Economic theories.

1. INTRODUCTION

Aging is a biological process which has always accompanied human being. In the modern world in an age of progressive globalisation, climate changes, as well as technological progress, demographic changes, including aging of societies have become of the greater importance.

Currently, the European cities are a stage of global transformation of processes, economic, social and spatial shock, and sociality aging has become one of the main topics of the European Union within a range of old age pensions, housing, transportation, medical and social care.

Society aging can, as a distinctive phenomena of our days, be a reason of disturbing vision of the European cities, because the balance in proportions of social groups becomes upset. A number of older people increases while of the younger ones becomes less and less, what hinders aspiration of the European cities to

sustainable development which is one of the priorities in spatial planning. In the year 2010 the share of persons age 65 and over was 18% of population, and as it is forecasted in the year 2030 it will amount to 24%, while in 2050 to 30% of the European population [3].

Moreover, a rate of society aging has rapidly accelerated, Europe becomes a continent of people of the third age – the aging societies. Owing to globalisation and technological progress, new trends connected with the change in lifestyle of societies appear in the European cities. Individualisation of ways of behaviour, people's needs and mobility have increased, which have an impact on the new approach to shaping functional and spatial structures of the cities and ways of thinking about the future of European cities [1]. To identify appropriately a role and a place of older people in city space, it is essential to get acquainted with gerontological literature related to the demographic, social-economic, psychological and spatial aspects. Perception of an old man within the city space

context changed throughout the years. Not only a human being becomes older, but the society: the world, a continent, a country, a region, a city, a village, a settlement as well as house occupants. Therefore, aging can be considered in unitary and collective dimension.

The aging process is very complex. To comprehend it, it is necessary to become acquainted with the theories originating from various disciplines of science.

2. THEORIES OF AGING

Among the primary theories relating to aging can be qualified: demographic, sociological, biological-psychological and economic theories. Herein below, the most essential of them have been characterised.

2.1. Demographic theories

Demography investigates human phenomena aiming to detect regularities which these phenomena are subject to. The demographic theories which bring awareness are, as follows:

- Demographic tendencies – construed as directions in demographic development of population regarding a number of births, deaths, population structure by age, child-bearing and fertility [5 p.180].
- Theory of demographic transition – it provides hypothetic stages of demographic development which appear in social and economical changes of particular human populations (agrarian society or hunting-collecting in industrialized societies). The concept indicates dependency between the increase of population and birth and death rates. In primitive societies (cultures) the increase of population was low, and birth and death rate high, while in industrialized societies mortality rate is low, and increase rate of population and birth rate are relatively high. [5, p.184].
- Demographic model – was provided in order to analyse and elaborate the current position of population as well as forecast its future development. The primary models include: the macro-demographic model covering demographic phenomena at a level of the entire human race, as well as the micro-demographic model describing demographic phenomena through modelling unitary ways of behaviour [5, p.99].

2.2. Biological-psychological theories

The most comprehensive classification of needs and generalizations relating to a role of needs in determination of human behaviour arose in psychology. Within the theory of environmental psychology theory there can be identified:

- **Person-Environment theory**, it means Person-Environment theory describes and explains in what way three-dimensional environment allows different organisms to stay, in particulars, in the system at molar level, (it means in a building scale of urban environment) with regard to a human being. It also refers to *person-environment relation* and *person-environment inside*. The objective of development of the person-environment theory, i.e. environmental designing theory, is intensification to understand what architects traditionally describe as *an architectural form* and its usefulness, both at the level of activities and emotions. The theory was created by Lawton and Nahemow who in 1973 stated that adaptation (aging) is a result of an interaction between the environment and individual competences.

The theory is developed on the assumption that the needs felt by a human allow to be grouped depending on their nature. Maslow determined hierarchy of needs (pyramid of needs) and divided them into needs of development and needs of poverty (basic).

Psychogeriatry is the discipline investigating psychical and biological phenomena beginning after the age of 50, and occurring mainly with people at senior age, which has defined biopsychical phenomena specific for old age, i.e.:

- decrease of flexibility of cognitive structures and adaptations,
- decrease of communication with the environment,
- increase of social isolation feeling,
- stratified psychical crises – loss of life partner, syndrome of left nest, fear of the future, negative balance of the life.

Colangeli [2, p.18-19] in his dissertation provides, regarding psychological aspect, after numerous authors, the below quoted statements related to older persons:

- progressive decrease of body weight and functions as well as life energy level, significant variations caused by genetic, social and environmental factors,
- currently expectations and life aspirations

increase, what contributes to delay of disability and higher level of activity,

- at middle-age structural changes in sensory processes, i.e. seeing, hearing, etc. occurs.

Besides, there are also many other theories that originated from fields of biology, genetics, etc., which the author hereof deemed as less essential regarding their impact on the space of urban environment. The other ones can also be specified: **biomorphic theory on aging** – in biochemical sense an individual subject to aging *day by day*; **theory of genetic error** – in every division of cells minimal error occurs in transmitting genetic instruction; **theory of single-use body** which is competitive towards the wear and tear theory of aging, in which existence of correlation between longevity and small number of descendants is assumed; **theory of tissue malnutrition** explains organism aging with aging of cells [5, p.181-182].

2.3. Sociological theories

Sociology deals with social reality in which people act interacting on each other. In sociological theories the following theories can be identified [2]:

- **Role theory** – life roles are the key to the concept of identity and they are concurrent with chronological course of the life.
- **Activity theory** – which tells in what way we perceive ourselves (we think about ourselves), it is based on a role that we perform or on activities in which we are engaged. Majority of people continue their roles and life action established earlier, because they still have the same needs and act under the same values. The more active older people are the more probably, they will be satisfied with their life. Activity theory is a package of hypotheses under which older persons' well-being is owing to maintaining high level of physical, intellectual and social activity as well as continuation of engagement in social life [5, p.180].
- **Disengagement (withdrawal) theory** – the aging process is accompanied with decreasing social activity and increasing mutual distance between an individual and society [5, p.183]. Older people withdraw from performing social roles (to be productive and competitive) and accept less formal social roles, and the society moves away from older people, etc.
- **Continuity theory** – this theory combines aging and knowledge as well as life experience during the entire life cycle and development of an indi-

vidual [5, p.182]. Personality and life style of older people is similar to the ones in the earlier life stages. Continuity theory is of essential importance for spatial planners at planning and designing for older generation. It can be pictured with an example: housing development for seniors should take into consideration many preferences and opportunities, life environment of older people should be designed in flexible way enabling adaptation. Planners have to be responsive to the way as older people were living earlier and adapt the urban environment to their needs. Future housing options should take the continuity into consideration (flexibility of development and adaptation at various stages of life) instead of implementation of different ideas for particular social, age groups, and etc.

- **Theory of age stratification** – this concept formulates aging in structural way skating the old age against different social processes and changes. The basis of this theory is classification of the society in age groups (cohorts) differed from each other in income, authority, prestige, roles, norms, values. Usually particular features of a definite group of older persons born at the same time can be specified with similar perception of the world (the common historical events), and also the characteristics resulting from composition of certain attributes, i.e. access to various goods due to different number of cohorts [5, p.184].
- **Critical gerontology theory** – a post-modern approach which investigates aging issues analyzing population of older people against inevitability of aging process of an individual through the discussion and diversity in the scientists' way of thinking.

2.4. Economic theories

The economics investigate activity of economy, as well as the consequences of particular activities and people's choices, as well. The following can be included to essential economic theories in terms of population aging:

- **Life-cycle theory** – an economic concept which explains behaviour of consumption demand in economy. Within gerontology it explicates older persons' consumption behaviour and inter-generation transfers. It is predicted that as a result of demographic aging consumption in 21st century will become restructured, as demographic changes force the change of consumption structure from the economy. In 25 years, following the position in

bibliography [5, p.181], there will be less people ready to purchase apartments or cars and a new segment called silver economy will appear on the global market. Then, a number of travel agencies proposing trips and entertainment will increase, more people will have to use support of physicians, outpatient clinics, hospitals, as well as institutions purposed for older persons. Besides, there will also increased a number of various forms of development for older persons.

- **Political economy theory of old age** – it is more a standpoint than a theory. Old age is regarded as a product of social policy, division of labour, economical and social differences, hence the issues of old persons should be investigated in the context of the world economy, a role of the country, a situation on job market and division of: class, race, gender and age [5, p.183]. Such orientation refutes the view that old age is a disease and requires reliance and support from the others. However,

current societies perceive older people, as reliant because of limited mobility owing to which they have limited access to many goods.

The above theories present that previous approach to the gerontological theories, for example: theory of a role, activity, withdrawal and continuation, focused on an individual and its adaptation at older age, while the newer theories, i.e. age satisfaction, political economy, critical gerontology, focus on explanation of aging phenomenon.

3. DIRECTIONS IN URBAN DEVELOPMENT

The table provided herein below, elaborated on the grounds of the selected theories and concepts of spatial planning described above, provides the selected theories and concepts as well as their practical application in forming directions in development of 21st century cities.

Table 1.
Application of aging theories in spatial planning

THEORIES AND CONCEPTS CONCERNING AGING	APPLICATION (PRACTICE)	DIRECTIONS IN URBAN DEVELOPMENT – (TOMMOROW city)
Biological-psychological theories concerning aging		
Environmental theory (person-environment): hierarchy of needs of human being. Aging can be construed as an interaction between the environment and individual needs of older people.	The theory is focused on: personal environment, environment of a group; in neighbour environment, social and physical environment. However, some investigators state that the theory potential has not been exercised. This model is suitable in construction of <i>dynamic interaction between single action of an individual and impact of the environment.</i>	Paying attention to older persons' needs in urban planning: physiological, safety affiliation and love, respect, need of knowledge and understanding, sympathy, aesthetical needs in cities.
Progressive decrease of body weight and level of life energy: caused by genetic, social and environmental factors.	Decreases of functions can be held back through physical and intellectual examinations, healthy feeding and participation in social life.	Designing of mix-use functions, creation of pedestrians friendly quarters provided with convenient transportation, owing to which older people can feel safer.
Increase of expectations and life aspirations: it contributes to delay inability and higher level of activity of older people.	Older people can live longer healthy and participate in social life and maintain higher level of cognitive and physical function.	Designing of urban environment friendly to people at any age (concepts: Universal design, Design for All).
Structural changes in sensory processes, i.e. seeing, hearing, etc.	The referred changes lead to less mobility, isolation and rejection.	When eyesight and hearing function weakens, what limits driving a car, there is essential need to provide older people with: alternative transportation in cities, medical and social care.
Social theories regarding aging		
Role theory: at particular stages of life cycle a human being performs specified roles. A human being reaching post-productive age when retiring changes his/her life role.	Deprivation of significant social roles (for example connected with job) can lead to loss feeling of own dignity and social identity.	In view of the change of life roles of older people after they retire, there is essential need to provide in urban environment rich urban offer ensuring older people many activities (casual jobs including the rest enabling social communication).

<p>Activity theory: older persons' well-being is connected with maintenance of high level of physical, intellectual and social activity.</p>	<p>Activity theory is adapted by senior house and care service centers, as the basis to their programmes. In the 60's and 70's of 20th century the activity theory was applied as the basis to social policy.</p>	<p>Urban space should ensure rich offer covering services, education and culture-entertainment, purposed to integrate older people with other social groups.</p>
<p>Disengagement (withdrawal) theory: older people withdraw from performing formal roles (to be productive and competitive) and accept less formal social roles (social, family). When people are old and have less energy, they withdraw from performing material roles in favour of more energetic young people.</p>	<p>The disengagement theory was applied as a manual for social services policy for older people, through implementation of services which should be purposed to facilitate the <i>disengagement</i> – promotion of young-old people integrity.</p>	<p>European cities should look after integration spacer at different levels of the life.</p>
<p>Continuation theory: combination of aging and the increase of knowledge and life experience. The life style of older people is similar as in the earlier stages.</p>	<p>The theory says the primary features of personality become more distinct.</p>	<p>The urban environment should response to the needs of older people, taking their earlier life style into consideration.</p>
<p>Theory of age stratification: Social structures and institutions collaborate with people at different stages of the life, including aging.</p>	<p>Demographic age structure introduces changes in the life of people and social institutions, they sometimes appear in different time.</p>	<p>Engagement of older people into the process of planning and designing for them the urban environment (social participation).</p>
<p>Critical gerontology theory: a post-modern approach which investigates aging issues analyzing population of older people against inevitability of aging processes of an individual through the discussion and diversity in the scientists way of thinking.</p>	<p>Some examiners declare for more integrated approach to introduce social policy for the weaker groups, in particulars, of low incomes.</p>	<p>Municipal authorities should look after available housing for older people, not only under category of architectural barriers, but in economic issues, as well, for example through proposal of new forms of social housing, etc.</p>
<p>Economic theories</p>		
<p>Life-cycle theory: demographic changes enforce the change of consumption structure in economy, a new segment called <i>silver economy</i> will appear in the global market.</p>	<p>The forecasts indicate the increase of a number of travel agencies proposing trips and entertainment. Furthermore, in 25 years more people will have to use physicians' support, outpatient clinics, hospitals, as well as, institutions for older persons. Then, a number of various forms of development purposed for older persons will increase.</p>	<p>Response in the space to the needs of future seniors (urban offer in the European cities older-persons orientated will be of material importance, and <i>silver economy</i> will also gain significance). In the concept of <i>silver economy</i> the concern is focused from one side on the needs and demands of older population, and on the other hand – on such population features which could be and which shall be used to greater activation and self-reliance. And it is assumed that the increase of activity and social integration of older people is the condition of better satisfaction of their needs, favoring the higher quality not only of their life, but of the entire society. [4, p.76].</p>
<p>Theory of political economy of aging: problems of older people shall be examined in the context of the world economy, a role of the country, situation on the job market and class, race, gender, age division. The theory refutes the myth that the old age requires reliance and support from others.</p>	<p>Older people are regarded by society as reliant through limited mobility and lack of access to many goods.</p>	<p>Urban space should be designed in a way to activate older people to activity.</p>

The source: the author's study

4. CONCLUSION

To summarize, the cities in 21st century should comply with differentiated needs of the inhabitants, including older people, as we receive to meet with: face the progress of serious demographic changes bringing far-reaching consequences. Today generation has to be careful with serious consequences that may cause a change of particular age group proportions in the society. In spatial development the following issues, such as herein specified, are inter alia to be taken into consideration:

- combination of functions of areas in a city, what decreases a distance and necessity of travelling,
- pedestrian friendly city, which stresses importance of the human scale,
- urban environment designed in compliance with the guidelines of Universal Design, *Design for All* as well as the needs and life style of older people,
- assurance to older people of alternative means of transportation which replace a private car,
- assurance of medical and social care to older people,
- location of majority of functions near place of residence of older people, not imposing creation of developed infrastructure (compact city),
- provision of rich urban offer, infrastructure network enabling quick and easy translocation (especially in big cities) and formation of spaces which impact on to social relations and inter-generation integration, promoting the concept of *active aging*,
- integration of older people with the rest of the society through adequate shaping of urban space,
- inclusion of older people into the city life and actions in the city (social participation),
- accessible housing for older people, as a form of promoting the concept of *staging in the place*.

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