

AGE-FRIENDLY LIVING ENVIRONMENT IN SUPPORT OF RESILIENT SOCIETY IN THE BULGARIAN CONTEXT

Georgi Georgiev

section

ARCHITECTURE

typology

RESEARCH & EXPERIMENTATION

DOI

10.19229/978-88-5509-096-4/3182020

ABSTRACT

The paper is focused on the important issue of an ageing population and the related need to explore and develop prospective forms of the sustainable age-friendly living environment. Due to the accelerating growth of ageing population, such task is having extremely large economic and social effect worldwide. Prospective trends in the development of a manmade environment for elderly people and their relevance to the Bulgarian situation are investigated. The paper summarises also the results from research in regard to specific problems and opportunities for setting up an age-friendly living environment in Bulgaria and formulates the prospective directions of future development in the context of a resilient society.

KEYWORDS

accessible housing, low-density urbanisation, age-friendly living environment, resilient society, ageing in place

Georgi Georgiev, Architect and PhD, is a Full Professor at the Department of Architecture, New Bulgarian University (Bulgaria). Chartered member of UK Chartered Institute of Housing, Representative of the Union of Bulgarian Architects in Architects' Council of Europe (ACE) – Working Group on Housing and Living Environment, long term experience in sustainable development, housing, urban and environmental planning and management in transition economies. Mob. +359 888/45.26.88 | E-mail: ggeorgiev@nbu.bg

As many authors from the last decades pointed out (Meadows et alii, 1972; Daly, 2015; Heinberg, 2005; Rubin, 2012), rapid industrialization and globalisation of mass production, combined with forced urbanization, have led to temporary economic gains in the short term, but in the same time, they create economic and social vulnerability in the long term prospective. In a world of almost exhausted natural resources and consequent climate change, we need new policies of limited economic growth and the related shift in urban and housing development that to some extent could be opposite to those from the last century. Localization is one of the key ingredients in the transition from growth to a steady-state economy. As the focus from the global goes back to the local level, a more connected and more sustainable economy developed within the spatial boundaries of local communities is being built. A viable local economy develops and supports local businesses by a providing circular economy.

Apart from economic gains, the localization will influence positively the reshaping of human settlements, bringing back to the people the forgotten values from the past – the reinvented local communities. This traditional model of structuring the living settlements is peculiar with its human scale, meaning people can easily identify themselves in their communities and develop a strong sense of place. In a sustainable economy, housing – the most important component of community infrastructure – is convenient, efficient and practical. Oversized mass housing structures need replacement with more meaningful housing groups that use land and energy resources responsibly. In the economy of the stable state, people will enjoy their wisely and economically planned homes, whose architecture additionally contributes to the increased sense of community and identity formed by joint participation in the local economy. Apart from the depletion of natural resources another major issue is demanding urgent action – the ageing of the world population. Again, it could be tackled by addressing particular changes in economy and restructuring of the urban spatial patterns – at the level of the human settlement and those of the dwelling level.

Ageing and the Living Space | Developed countries in Europe, North America etc. are facing unprecedented demographic changes. The ageing population, together with low birth rates are significantly modifying the social structure. There is a dramatic shrink of working-age population combined with a growing retired population. As projections show by 2060 about half of Europeans will be of retirement age by current levels (European Commission, 2015). The societies must find a way to keep ageing people to stay healthy and remain active as long as possible. In order to achieve sustainable economic status, people's active life will need to be extended. This can be made by creating an environment where becoming old does not necessarily mean being dependent on others. The concept of 'ageing in place', is getting popularity more and more (Mestheneos, 2011). The demographic change will strongly influence the change of human settlements, as urban and housing space must fit changing people's needs.

The European Commission emphasizes that ‘population ageing is one of the most important phenomena influencing policy directions in the multidimensional context of the social, labour market and economic transformations’ (European Commission, 2014). When economic growth is a major goal, the results are destroyed local communities, disturbed living conditions and a lack of ‘sense of place’. The massive expansion of housing construction in suburban areas of major cities around the world in recent decades is a practice without a future in the new economic climate. Forced urbanization created a growing mismatch of urban territories and residential areas with enormous tension on ecosystems. In some cases, ecosystems appear to be steadily functioning and appear to cope with rising tensions. However, a sudden explosion of such an ecosystem, which is irreversibly shrinking with loss of sustainability, could only be a matter of time (Walker and Salt, 2006).

The ageing population as phenomenon is transforming from a ‘challenge’ to an ‘opportunity’. It is proved that active elderly people have greater life satisfaction (Lim and Putman, 2010). The ageing population could facilitate economic growth by development of a new economy dynamics (‘silver economy’). Active older people could be seen not as a burden, but as a resource for the community and the economy, as long as a suitable living environment for them is created. The adapted living environment is crucial for successful ageing, good health, education, favourable financial situation and family networks. The development of a holistic approach towards ageing also affects accessible housing policies. The World Health Organization (WHO) created a framework for assessing the ‘age-friendliness’ of a city. Among social support from relatives, friendly and inclusive public spaces, community services, transport and mobility, housing plays an important role. Familiar location, ‘care-ready’ housing, living centres with shared facilities seem to be key-elements to successful ageing. Architectural shapes should promote social inclusion, intergenerational interaction, affordability, flexibility and adaptability.

The growth of the ageing population in Europe is an inescapable demographic change opening questions on social support, community and health services, mobility, transports and housing. Accessible residential buildings for the elderly are in growing demand all over the developed world. Nowadays, inclusive designs are more than ever necessary to fully optimize the resources of the ageing population. Involving different generations in multi-generational dialogue and using their potential to pass on local traditions and culture to the younger generation is an important component of the building cohesive local societies. Accessible housing is more than health and safety issues: it is the starting point for building of inclusive communities. Accessible housing is playing an increasingly important role in the commitment of elderly people in social and economic life. Accessible housing helps people to remain active by designing healthier living spaces (Demirkan, 2007). The focus is more and more centred on the individual dwelling. Three primary priorities must be addressed: accessibility, health, affordability (European Federation for Living, 2016).

Bulgarian Cities during Centrally-Planned Economy and Transition to Market Economy | Industrially built housing estates restructured the big cities in Bulgaria after 1944. The physical structure of the big cities' housing estates (residential complexes) finds its ideological basis in the urban development concepts of the XX century's modern movement in architecture (Fig. 1). Two main factors determine the development of the housing environment in the Bulgarian cities in the period up to 1989: 1) the conceptual and political doctrine of the transformation (also spatial transformation) of the old, capitalist society and the construction of a new, non-class society, connected with serious changes in the socio-economic sector, industrialization, regrouping of the population, creating a new culture and new cities; 2) the functional-constructivist approach to town planning and urban development, combined with the centralized and deterministic manner of the planning of economic activities and demographic processes, peculiar for the period from the 1940s to the 1960s (Fig. 2, 3).

In theory of urban planning, according to the Athens Charter, the city is divided into functional areas and the housing areas are planned in hierarchical order and a mutual correlation between the different subsystems – communication, public service, green system. Each level of structural organization of the living environment – residential group, micro-district, district, corresponds to a level of public service – daily,

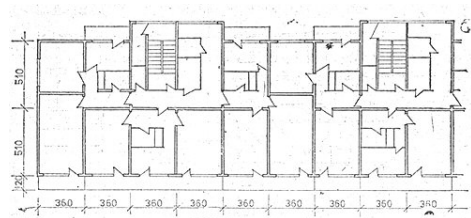
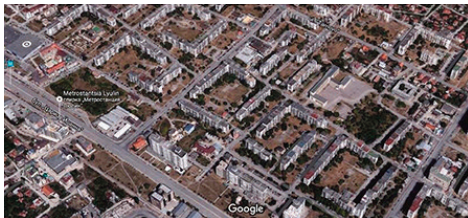


Fig. 1 | Housing estate Lulin, Sofia (credit: Google maps, 2017).

Fig. 2 | Layout of a standard floor of a residential building, Large Panel technology (credit: G. Georgiev, 2017).

Fig. 3 | Large size panel system buildings in construction (1970), Dianabad estate, Sofia (credit: G. Georgiev, 2017).

Fig. 4 | Contemporary look of Bulgarian large panel residential building from the 70s of XX century (credit: G. Georgiev, 2017).

	Number of dwelling	Useful floor area	Пол. площ на 1 жилище – кв.м.
Dwellings total	3 935 105	287 932 638	73.2
Public dwellings	92 560	5 053 276	54.6
private - total	3 842 545	282 879 362	73.6
Including: legal entities	58 919	4 248 738	72.1
Including: private entities	3 783 626	278 630 624	73.6

Table 1 | Dwellings in Bulgaria by tenure form (credit: G. Georgiev, 2017; source: National Statistical Office, Current Statistical Data, 2015).

periodically, episodically, tied to the relevant levels and elements of communication, mass transport, recreation system etc. The Athens Charter urban planning doctrine founded practical realization mostly in the big cities of Bulgaria, whereas many smaller towns and villages preserve their traditional structure, showing resistance to this (rather mechanistic) doctrine of the modern movement. Industrialization, followed by forced migration, caused a large influx of people into Bulgarian big cities. It makes necessary and possible to build large-scale residential developments, consisting of multi-storey apartment buildings – ‘housing complexes’. The used industrial building technologies, mostly large-panel, shaped the dwelling as a uniform factory-made product designed for an anonymous user. This was a serially produced product for people with standardized social, economic and cultural status (Georgiev, 2017; Fig. 4).

By paradox, denying the mechanism of the market economy as a basic vehicle of satisfying the material needs of the people, the centrally planned non-market economy of socialist type meets the basic human need for housing by means of an anonymous industrial product, following the globalizing capitalism from the second half of the 20th century (Toffler, 1980). Once activated, the housing machine needs new and new construction sites. Industrial housing technologies are unsuitable for use in the context of a traditional urban environment – they either ignore it, destroy it physically, or are applied to newly developed land at the city boundaries. During this period the big cities expanded extensively at the expense of exhausting agricultural land on the periphery.

The problems of the housing environment inherited from the period of the centrally planned economy were further exacerbated during the transition period after 1990. The accumulated problems call for a permanent, and synchronized policy aimed at harmonizing the housing estates in social, psychological, cultural and economic terms. In general, it is necessary to overcome the alienation of the inhabitants of their environment. It is necessary to create a sense of stability and security for the inhabitants, to ensure the development potential for the next generations. The self-identification of the residents with their environment in all aspects – from cultural-psychological to legal-economic, will creatively motivate them. It is also necessary to create and stimulate the action of neighbourhood microsocial structures, of common social life, of legitimizing the civic activities, of the inhabitants and their inclu-

sion in the processes of building, renovation and maintenance of the living environment.

A matter of key importance for the balanced development of the housing sector is to take measures for eliminating the extremely large imbalances in the tenure structure of Bulgarian dwellings. Bulgaria is one of the countries with a record share of owner-occupied dwellings – currently nearly 98% of the total housing stock (Georgiev, 2017). This is a fact that hinders labour mobility, and also opposes the urgent need to renovate existing apartment housing in big cities (Table 1).

Bulgarian Urban and Housing Structure in the Context of Post Growth Society and the needs of Ageing People | To access in general the potential of urban structures and housing in Bulgaria to adapt to the needs of ageing people a brief survey was made. Data for existing building stock are collected mostly for bigger cities, small settlements around them and resort structures in Bulgaria. Collected data on the building stock are analyzed, taking into account the necessary transformations and the need of adequate social and spatial context: 1) possibilities for transformation of the ownership of the objects; 2) opportunities to implement structural and functional changes of the buildings; 3) availability of adequate social and spatial contexts and opportunities to improve it; 4) availability of infrastructure facilities of the settlements and opportunities for their improvement. The survey was based on deskwork – collection and analysis of existing relevant data from statistics, cadastre and urban plans, Google maps and also from field work.

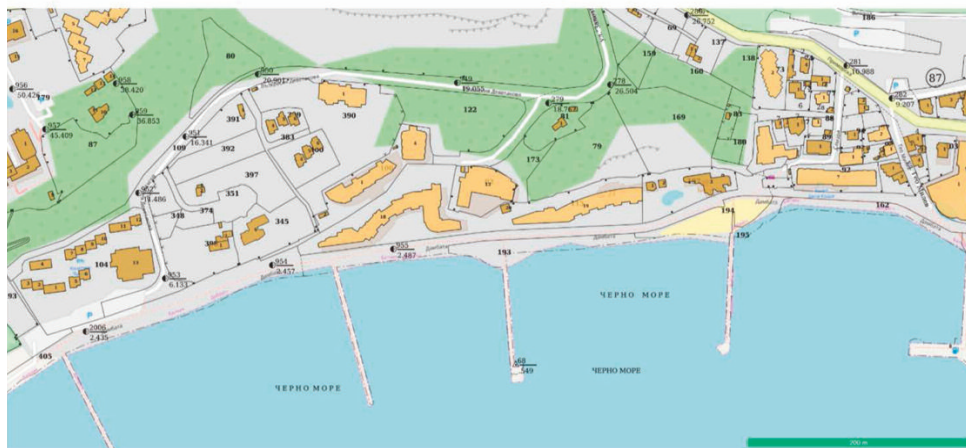
The general statistical data for the available housing stock shows that Bulgaria has a sufficient number of dwellings. The value of the average indicator ‘number of dwellings per 1,000 people’ (above 500/1,000) brings the country ahead of the developed European economies (420/1,000). However, the location of the housing stock is inconsistent to employment – as a result, every seventh dwelling is uninhabited, over 170,000 dwellings are overcrowded and over 50,000 dwellings are densely populated (Georgiev, 2017). The status of the existing Bulgarian dwellings is critical due to the poor quality of the construction and particularly the chronic absence of an adequate management and maintenance system for dwellings. The share of owner-occupied dwellings is overwhelming – more than 98%, residential buildings in Bulgaria have extremely low energy efficiency. The main conclusion is that Bulgaria does not need a massive new housing construction, but renewal and upgrade of the existing housing stock to fit the actual needs, combined with restructuring the ownership of the existing stock (Georgiev, 2017).

The following specific statistical data was collected and analyzed: a) the dynamics of age structure of population and the forecast for expected trends; b) the localization and capacity of hotels and guest houses in summer/winter resorts and the average rate of occupancy through the year; c) the dynamics and localization of newly built dwellings in summer/winter resorts; d) the capacity, ownership structure and territorial localization of existing homes for elderly; e) the territorial structure and occupation



АГЕНЦИЯ ПО ГЕОДЕЗИЯ, КАРТОГРАФИЯ И КАДАСТЪР

Кадастрално-административна информационна система



Мащаб: 1: 1159



АГЕНЦИЯ ПО ГЕОДЕЗИЯ, КАРТОГРАФИЯ И КАДАСТЪР

Кадастрално-административна информационна система



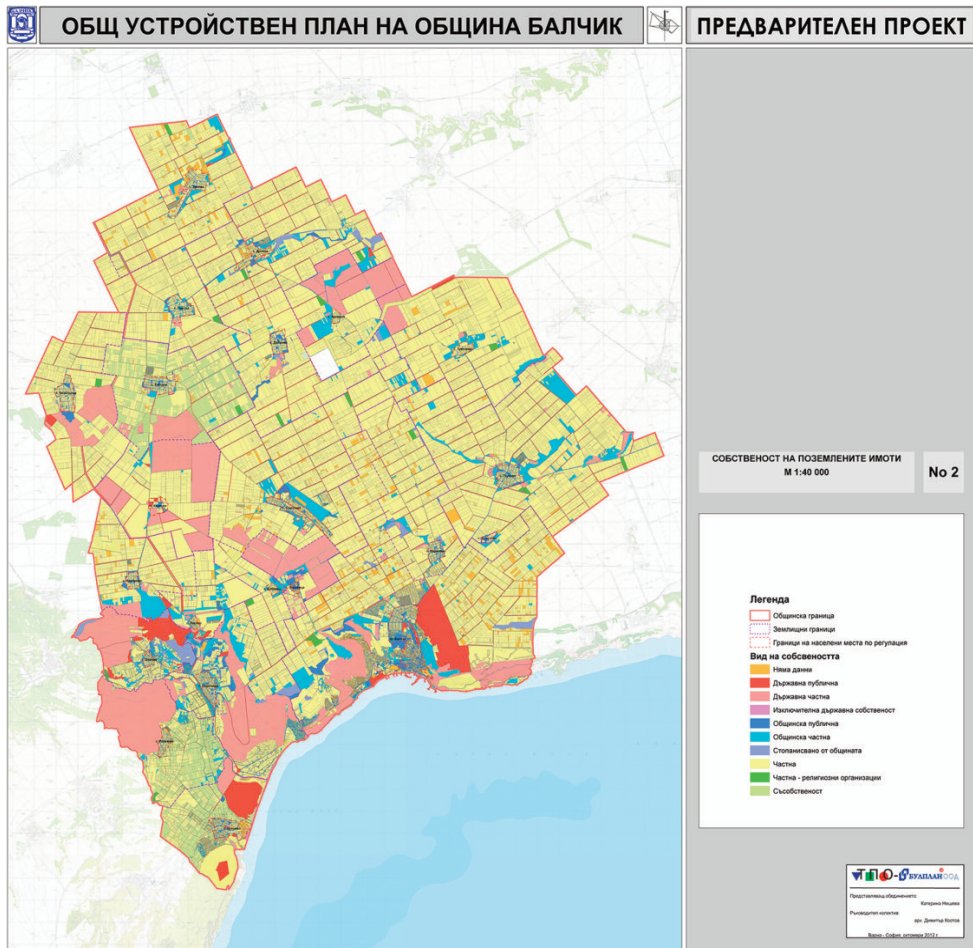
Мащаб: 1: 1159

Fig. 5 | Cadastre excerpt of Black Sea medium town Balchik (credit: Bulgarian Cadastre Agency, 2019).

Fig. 6 | Cadastre excerpt of Black Sea settlement Shabla (credit: Bulgarian Cadastre Agency, 2019).

Next page

Fig. 7 | Master plan of Black Sea town of Balchik (credit: Municipality of Balchik, 2019).



rate of existing housing stock; f) structure of available empty dwellings around bigger cities (in certain isochrones of accessibility); g) structure, localization and quantity of closed school buildings. Based on the first step additional data was collected and analysed from National Cadastre, urban plans and aerial photos. Finally, additional information was gathered by fieldwork: on-site visits to existing homes for elderly; on-site visits to problematic hotels and guest houses (unfinished, unoccupied etc.) and villages in resort areas; on-site visits to abandoned school buildings (Fig. 5-8).

The following main conclusions from processing the collected data are made in the paper: 1) Due to the pace of ageing of Bulgarian population and the lack of adequate age-friendly living environment there is an urgent need to implement coordinated action to tackle the problem; 2) The structure, allocation and availability of existing building stock in Bulgaria is a favourite prerequisite to develop age-friendly living en-



Fig. 8 | Abandoned former school building in the recreation area near the city of Shumen (credit: G. Georgiev, 2019).

vironment if a proper public policies (combined with sufficient fund allocations) are put in place.

Conclusion | To allow an age-friendly living environment in support of resilient society in Bulgaria the necessary directions are outlined as follows:

- Formulation of the long-term goals of the national housing policy for ageing people as part of the update of the National Housing Strategy adopted by the Government of the Republic of Bulgaria in 2004;
- The updated National Housing Strategy should provide establishing comprehensive housing design and policy legislation including regulations for accessible housing and housing for ageing people;
- Housing Policy legislation should foresee regulations for creation of social rental sector by social housing landlords, allowing ageing-friendly environment;
- Implementation of a detailed nationwide survey for identifying the existing reserves of unused building stock (housing stock, guesthouses and hotel buildings, former school buildings) for the needs of ageing people;
- Creation of state-backed financial facility (Guarantee Fund) capable to support finan-

cially the restructuring of huge unused housing stock for the needs of ageing people;

- Introducing tax incentives for individuals and companies encouraging investments in ageing friendly building environment;
- Establishing the time scale for utilising the existing resources in form of reconstruction of the empty building stock in various forms/ownership (abandoned houses/schools in villages, unoccupied newly build housing and hotel buildings in winter/summer resorts).

Acknowledgements

The paper is based on findings from a research project, funded by Bulgarian National Research Fund (Grant Contract DCOST 01/26, 2017).

References

- Daly, H. E. (2015), *From Uneconomic Growth to a Steady-State Economy*, Edward Elgar Pub, Cheltenham (UK).
- Demirkan, H. (2007), "Housing for the aging population", in *European Review of Aging and Physical Activity*, vol. 4, pp. 33-38. [Online] Available at: doi.org/10.1007/s11556-007-0016-z [Accessed 4 November 2019].
- European Commission (2015), *The 2015 Ageing Report – Economic and budgetary projections for the 28 EU Member States (2013-2060) | European Economy*, n. 3/2015. [Online] Available at: ec.europa.eu/economy_finance/publications/european_economy/2015/ee3_en.htm [Accessed 4 November 2019].
- European Commission (2014), *Population ageing in Europe – Facts, implications and policies*. [Online] Available at: ec.europa.eu/research/social-sciences/pdf/policy_reviews/kina26426enc.pdf [Accessed 4 November 2019].
- European Federation for Living (2016), *EFL Design Competition – Accessible Housing 2015-2106 – Jury Report & The Book of Designs*. [Online] Available at: www.ef-l.eu/assets/EFL-Jury-Report-Accessible-Housing-Competition-2016.pdf [Accessed 4 November 2019].
- Georgiev, G. (2017), *Housing policy in Bulgaria – Recent history, current projects and future trends*, Lap Lambert Academic Publishing, Riga. [Online] Available at: eprints.nbu.bg/3956/ [Accessed 4 November 2019].
- Heinberg, R. (2005), *The Party's Over: Oil, War & the Fate of Industrial Societies*, New Society Publishers, Gabriola Island (Canada).
- Lim, C. and Putman, R. D. (2010), "Religion, Social Networks, and Life Satisfaction", in *American Sociological Review*, vol. 75, issue 6, pp. 914-933. [Online] Available at: journals.sagepub.com/doi/10.1177/0003122410386686 [Accessed 4 November 2019].
- Meadows, D. H., Meadows, D. I., Randers, J. and Behrens III, W. W. (1972), *The Limits to Growth – A Report to The Club of Rome, project on the predicament of mankind*, Universe Books, New York.
- Mestheneos, E. (2011), "Ageing in Place in the European Union", in *Global Ageing*, vol. 7, n. 2, pp. 17-23.
- Rubin, J. (2012), *The End of Growth*, Penguin Random House Canada, Toronto.
- Toffler, A. (1980), *The Third Wave*, Bantam Books, New York.
- Walker, B. and Salt, D. (2006), *Resilience Thinking – Sustaining Ecosystems and People in a Changing World*, Island Press, Washington.