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## URBAN SPRAWL AND SMART GROWTH VERSUS QUALITY OF LIFE

### *URBAN SPRAWL I SMART GROWTH A JAKOŚĆ ŻYCIA*

#### **Abstract**

One of the key reasons behind the urban sprawl process is the desire to increase the quality of life by living in “better” conditions. “Smart growth” is an alternative concept for the extensive development of the city, integrating different ways of land development in a compact manner. The main current of the work is to reflect on the quality of life in the urban areas. The aim of research is to determine ways to “heal” the spatial development of urban and suburban areas under the existing conditions of increasing urban chaos. The interpretation of living conditions for particular social groups is needed to find solutions that increase the quality of life. The background to the research is an analysis of literature on the subject, the consideration of good examples and own observations.

**Keywords:** quality of life, urban sprawl, smart growth, compact city

#### **Streszczenie**

Jednym z kluczowych czynników powodujących proces urban sprawl jest chęć poprawienia swojej jakości życia poprzez zamieszkanie w „lepszych” warunkach. Smart Growth jest koncepcją alternatywną dla ekstensywnego rozwoju miasta integrującą różne sposoby zagospodarowania terenu w zwarty sposób. Głównym nurtem artykułu jest zastanowienie się nad jakością życia na terenach zurbanizowanych. Celem badań będzie określenie sposobów „uzdrowienia” zagospodarowania przestrzennego terenów miejskich i podmiejskich w istniejących warunkach narastającego chaosu urbanistycznego. Interpretacja warunków życia jest potrzebna do zastanowienia się nad sposobami rozwiązań polepszających jakość życia. Tłem do badań jest analiza literatury przedmiotu, dobrych przykładów oraz obserwacje własne.

**Słowa kluczowe:** jakość życia, suburbanizacja, *smart growth*, miasto zwarte

## 1. Introduction

The possibility of shaping an urban environment that exhibits high functional values in an active and conscious fashion and consists of satisfying the needs and expectations of local residents has been becoming increasingly important in the modern world due to urban tendencies and the growing demands concerning man's habitat. Living conditions in the urban space determine the quality of life of its numerous inhabitants and depend upon many different factors, which must be properly shaped by administrators of the urban space. Improvement of the quality of space in the existing urban tissue plays a key role in striking a balance between appropriate economic, social, and cultural measures.

According to Chwalibóg [4, p. 48], the limits of freedom in creating space should be determined by means of requirements relating to safety, accessibility, and friendliness, taking into account the needs and well-being of individuals who occupy the particular environment. Today, we start to comprehend how diversified an average population can be, and consequently, how diverse its needs are. Research on the significance of the quality of the environment in the hierarchy of human needs has demonstrated that the quality of the closest environment is the second most important determinant of the quality of life – right after family happiness – and the presence of natural elements and spatial structure consistent with our expectations can be considerably helpful in increasing this quality, fostering the improvement of local residents' health and well-being [16].

Niezabitowska and Masły [13] propose a thesis on the quality of development associated with 'a good building' as a token of sustainable environment, creating a safe and healthy work and living environment, causing no pollution of nature, having low maintenance costs, providing its users with satisfaction through occupying it and giving passers-by and the public pleasure by being in contact with it. The concept of a home, a building, and residence is closely associated with urban development. The home constitutes man's natural living environment – an individual's territory. Augustyn Bańka [1, p. 247] observes that the notions of a home and a house in western culture are intermingled. In many cultures, the notion of a home has nothing in common with the concept of a building (...); for some, it is a place of their origin, for others a place of their birth, and still for others a town they live in on an everyday basis or their neighbourhood.

According to Abraham Maslow, satisfying higher needs is preceded by satisfying lower, physiological ones. A subsequent fundamental need is the need of security, and the next needs (those of a psychological nature) refer to affiliation and territorial identification. Jan Gehl [5] emphasises the functions of a home as being crucial. Therefore, it can be stated that a home is the only element able to satisfy fundamental human needs and that it constitutes a fundamental territory for meeting such needs.

## 2. The quality of life

The term 'quality of life' has a long tradition. It appeared for the first time after World War II, and in the 1960s, it started to emerge in the context of all sorts of programmes of welfare and systematic social transformation aimed at helping people to shake off poverty, shortages, and helplessness [14].

Initially, quality was associated with material well-being only; over time, the term was extended to include intangible assets. It was observed that improvement in terms of material well-being and satisfying fundamental needs does not have to be equivalent to the increase in prosperity. Extending the notion of the quality of life from the areas of 'to have' to those of 'to be' entailed the need to introduce new criteria associated with objective living conditions and their subjective perception. A multifaceted and ambiguous nature of the evaluation of the quality of life became a necessity and one of the most important aspects of the contemporary reality.

When investigating the relationship between man and space, one observes that one of the fundamental elements for quality of life is man's habitat, which encompasses a home/dwelling, along with its closer and more distant material and social surroundings. The level of the quality of life is closely correlated with housing standards: the better the quality of life is to be, the better the housing standards that need to be provided in order to shape a decent, comfortable, and friendly housing environment, fostering our self-actualisation. The quality of this environment is expressed in the evaluation of the extent to which it is saturated with properties and features desirable from the perspective of its user [2].

Considering the above, as well as how diversified the average population is, we observe different choices with regards to housing patterns, satisfying the very diverse needs of residents. A lack of satisfaction with living in the city and the willingness to fulfil a natural need of 'a home' results in moving beyond the city limits and getting a dream house with a garden.

## 3. Urban sprawl

Mierzejewska [12] states that the pursuit of the proper form of a city may also be conducted emphasising those properties which testify to spatial disorder and which will consequently not contribute to the sustainable development of the city. Such properties identified in Polish cities in the period of real socialism have been discussed by Jałowiecki [8], who mentioned the following:

- ▶ the existence of large housing estates in the suburbs – the size, urban layout, and architectural form of which were dictated predominantly by requirements of construction companies; the monofunctionality of housing estates located increasingly far from city centres generating growing transport-related needs;
- ▶ the large scale of housing construction increasing the maintenance costs of buildings, aggravated by enormous energy losses resulting from the adopted technology and sloppy workmanship;

- ▶ the low standard of apartments and lack of the necessary services in large-scale construction, which is the source of dissatisfaction of residents and creates circumstances fostering pathological behaviours, hindering social relations necessary for individuals and communities to function properly [9];
- ▶ the decapitalisation of old buildings in the city centre, bringing about the deterioration of living conditions in inner cities and the pressure to build new apartments, which has contributed to social segmentation;
- ▶ the underdevelopment of city centres in terms of the functions of services as well as symbolic functions.

Nowadays, spatial disorder is evidenced by uncontrolled urban sprawl, an aversion to earlier spatial solutions, and the spatial policy with documents at a local level of administration. The tasks of the commune are comprised of spatial order issues in planning documents, and it is the commune's statutory obligation to define the local spatial policy in a study on development conditions and directions, as well as to implement such a policy by drawing up local spatial development plans. A lack of precision of social planning regulations has allowed communes to interpret the act quite subjectively, and consequently, it has caused the broadly criticised spatial chaos and urban sprawl.

Initially, urban sprawl was perceived as the expansion of the city towards its adjacent areas. Harvey E.O., Clark W. [6, p. 4] identify three forms of urban sprawl: low density continuous development; ribbon development; leap-frog development. As has already been mentioned, today, the term 'urban sprawl' is often used to address negative phenomena, usually associated with the phenomenon of low-density suburbanisation and ineffective development. Sometimes, the term 'sprawl' refers to harmful, unsightly, or inefficient development. Definitions based on land use identify 'sprawl' with the spatial separation of forms of land use and with the extensive monofunctional use of land associated with the development of one-family houses, free-standing shopping malls, and business/industry estates, as well as a dependency upon automobiles. In a broader sense, uncontrolled urban sprawl generates losses which could be apparent by the limited use of the remaining undeveloped land. Furthermore, additional environmental and social costs are identified, and in the course of time, it will generate higher and higher economic costs for local governments and local communities, which are associated with the technical infrastructure necessary for residents to live in a specific location. The subject literature points to other significant costs, such as the costs of commuting to work and the costs of lost time [11]. Increasingly often, such costs influence decisions on the place of residence as they constitute a direct burden for household budgets. It is also observed that young people return to cities with their school-age children due to the poor educational and cultural facilities available outside the limits of the city.

#### 4. Smart growth

Many things we deem important in our lives are influenced by our main development decisions, e.g. how we choose to live, how much time we are ready to spend travelling to work, our accessibility to the services we deem the most necessary, etc. Our choices determine the quality of our everyday lives, which take more and more time and also have a direct influence on our personal lives. Therefore, while pursuing our dreams, we more and more frequently consider everyday life amenities, and the principles of smart growth<sup>1</sup> [17] turn out to be the key to our success.

Smart growth is proposed as an alternative to extensive urban development – urban sprawl – as a concept of a compact city. Smart growth is also one of many model concepts of sustainable urban development which regards the process of urban development in a more comprehensive way, taking into account ecological, spatial, and social aspects more than only economic factors. Integrating solutions contributes to limiting the unfavourable effects of external urbanised areas, as well as securing a high quality of life in the city, social justice, and favourable management conditions [12].

The objective of developing a concept for urban space development is to secure the spatial order and sustainable development of cities. The smart growth model is intended to limit suburbanisation and contribute to the revitalisation of cities. At the local level, the most popular instrument is the urban growth boundary.<sup>2</sup>

Residents who opt for a metropolitan lifestyle desire such values as density, intensity of contacts, and diversity, which foster the development of innovation and creativity. Residents are focussed around public transport hubs and local outlets of basic services, including new functions associated with new lifestyles, new forms of recreation, and new workplaces. These functions are easily inscribed in the urban structure and do not cause any visible changes in the physical structure of the city.

The beneficial economic aspects of a dense urban tissue most of all result from the more effective use of available resources, such as space, energy, and time. Use of local services supports local entrepreneurs and saves time. Small distances resulting from the vicinity of places of residence, workplaces, and services encourage walking and cycling and thus have a positive effect on health. Enhanced safety can also be observed due to more people observing and using the space around them. The economic advantages of good urban planning have a positive effect on local residents and, in a broader sense, on not only society on the whole but also on local authorities, investors, developers, and designers. Furthermore, a dense and multifunctional urban tissue is fairly resistant to crisis phenomena and can be relatively well adapted to the changing conditions.

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<sup>1</sup> 10 principles of smart growth: 1. mixed land uses; 2. taking advantage of compact building design; 3. creating a range of housing opportunities and choices; 4. creating walkable neighborhoods; 5. fostering distinctive, attractive communities with a strong sense of place; 6. preserving open space, farmland, natural beauty and critical environmental areas; 7. strengthening and direct development towards existing communities; 8. providing a variety of transportation choices; 9. making development decisions predictable, fair and cost effective; 10. encouraging community and stakeholder collaboration in development decisions

<sup>2</sup> See chapter III, Harasimowicz A., *W kierunku rozwoju zrównoważonego: granice wzrostu miast* (in:) [3], pp. 51–62.

## 5. Contemporary concepts of designing high quality spaces in cities – good practices in Vienna

Ideas of model concepts for sustainable urban development, designing a compact, multifunctional urban tissue in the aspect of smart growth have been a feature of large urban projects. This chapter focuses on selected examples of current urban projects representative in terms of different types of design: continuation, completion, or experimenting with compact urban structures using the example of Vienna. In respect to different possible classifications of such projects, a simplified division into four types of new structures is adopted herein as alternatives to chaotic suburbanisation:

- ▶ large urban projects, new districts;
- ▶ ‘city within city’ concepts, complex housing estates;
- ▶ suburban housing estates;
- ▶ concepts in the urban context, projects focusing on the densification of the urban tissue on a smaller scale.

One of the clearest examples of projects focusing on the creation of a new urban district is *Aspern Die Seestadt Wiens* [18] (Fig. 1). This new district of Vienna is designed on a surface area of 240 ha within the perimeter of a former airport, as a contemporary residential town (8500 housing units for 20,000 people), workplace (20,000 jobs), and place of leisure. The idea emerged in 2005. Johannes Tovatt, Swedish architect, as a result of his close cooperation with specialists representing Vienna authorities and residents, created a conceptual design of *Seestadt Aspern*. In May 2007, the Vienna City Council unanimously accepted the concept of the new district. The plans were constantly developing. In 2010, they were completed with a more detailed public space study and design guidelines were published in the planning guide “Partitur des öffentlichen Raums” from Gehl Architects. All this was accompanied by foundations for research projects NACHaspern, such as the transport guide, the general energy concept, and the action plan for sustainable development of urban areas. Local residents participated in the development of the conceptual plan and have been involved in its development and implementation, e.g. in City Labs. The project is to be implemented in 2028 in three stages. The geographical heart of the new town is a 5-ha lake in a 9-ha park. All the public spaces – streets, squares and parks – will constitute 50% of the total surface of urban areas. Man and quality of life are the main priorities in this project.

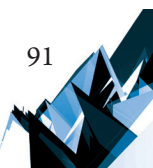
The concept of a city within the city has been implemented in many housing estates in Vienna. The first of these was a housing estate built in the 1970s, catering for the needs of over 3,000 people, Alt-Erlaa<sup>3</sup> in the 23<sup>rd</sup> district of Vienna. The main architect of the project, Harry Glück, planned to create a self-sufficient estate embedded in greenery. The concept of overlapping one-family houses with gardens created a terraced structure with a particularly extensive social infrastructure. Another concept, commenced in 1992, is Donau City in the 22<sup>nd</sup> district of Vienna. Apart from office buildings, towers, a school, a church, nurseries, and

<sup>3</sup> An interesting film by Reinhard Seiss depicting life in a housing complex Alterlaa: *Häuser für Menschen – Humaner Wohnbau in Österreich*. Ein Film von Reinhard Seiss, Mürý Salzmann, DVD, Wien 2013.





Fig. 1. Aspern Die Seestadt Wiens, 22 district, Vienna (Source: [19])





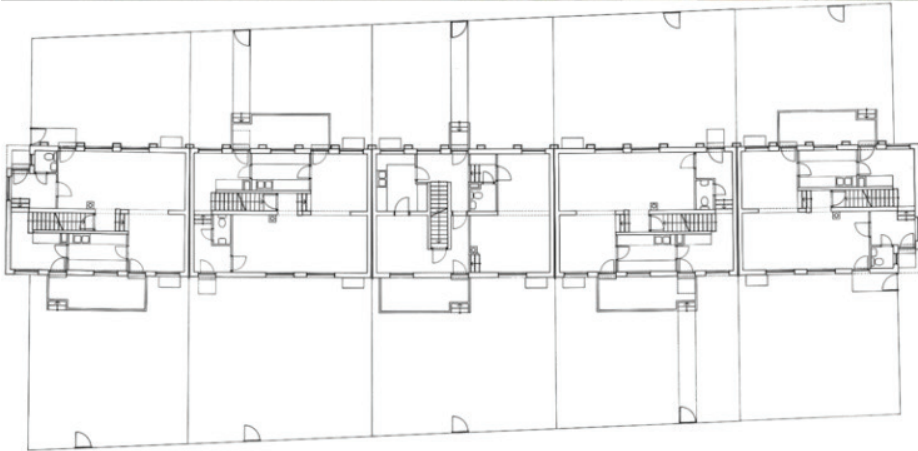


Fig. 2. Housing Estate Pilotengasse, 22 district, Vienna (Source: [20])



stores, numerous residential projects were completed on the basis of the masterplan by Adolf Krischanitz and Heinz Neumann. In the direct vicinity, there is a park housing estate, Neue Donau und Alte Donau. New districts in the southern part of the city have a similar character to the development area of Donau City to the north, including: Wienerberg City with terraced houses and tall apartment buildings; Monte Laa erected on a platform above the motorway; Kabelwerk<sup>4</sup>, where a new participation model was trialed. Furthermore, one of Europe's largest adaptation projects, Gasometer City, has been implemented here.

Since the mid 1980s, increasing attention has been paid to urban expansion into suburbs. In contrast to the large housing estates of the previous decades, this is more diversified in terms of architectural form (the result of one- and two-stage competitions) and it integrates different designers within one investment. Its goal was urban and social diversity. These requirements are satisfied by the majority of projects of experimental housing estates (Fig. 2) designed in such a way.

The main assumption of the Pilotengasse housing estate in the 23<sup>rd</sup> district of Vienna is to organise its space in compliance with a series of principles: their beginning and end; their curvature; their course perpendicular to the radii; their distribution into individual structures. Whereas the lengths of the lines constitute physical parts of buildings, spaces between them create a field of relations, and eventually specially designed edges. The range of distances for pedestrians opens up an important area of perception and experience amongst the growing and shrinking central garden space, which is limited by rows of houses. Distances, proximities and widths constitute the main theme of this housing estate. Terraced houses organise their surroundings as dense residential spaces in a cyclically rotating manner, and in doing so, they secure the constantly changing view of the façade.

Another example is Travatagasse (Fig. 3) in the 23<sup>rd</sup> district of Vienna. Its characteristic urban rigidity and severe geometry applied in the layout of the buildings constitute a definite contrast to the shapelessness of the suburbs. A high degree of privacy of spaces in this housing estate is guaranteed by the diverse housing typology (houses with balconies, buildings with front yards, stepped buildings, and mixed housing forms) and by the introvert nature of the space between buildings.

The objective of the projects in the urban context was to continue the tradition of housing estates with low, dense development and a wide range of different housing units in the existing urban tissue. A good example in this respect is the Oresteig Housing Complex in the 21<sup>st</sup> district of Vienna and forms of community housing in Frauen Werk Stadt II (Fig. 4), which constitute a continuation of the thematic Frauen Werk Stadt I housing estate. Besides the context of women in the planning process, one of the most important objectives was to create favourable conditions for the development of neighbourly contacts and the support of senior citizens. An important element was to complete the development block in such a way that it was smoothly connected with the surrounding area so that the buildings could form frontages of streets and public spaces.

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<sup>4</sup> Housing complexes Neue Donau, Wienerberg City and Gasometer City were described in Joanna Giecwicz's book *Konserwatywna awangarda. Wiedeńska polityka mieszkaniowa 1920–2005*. Professor Jacek Gyurkovich in his article *W poszukiwaniu miejskości – przestrzeń przyjazna* refers to the examples of the Kabelwerk and Monte Laa housing complexes.

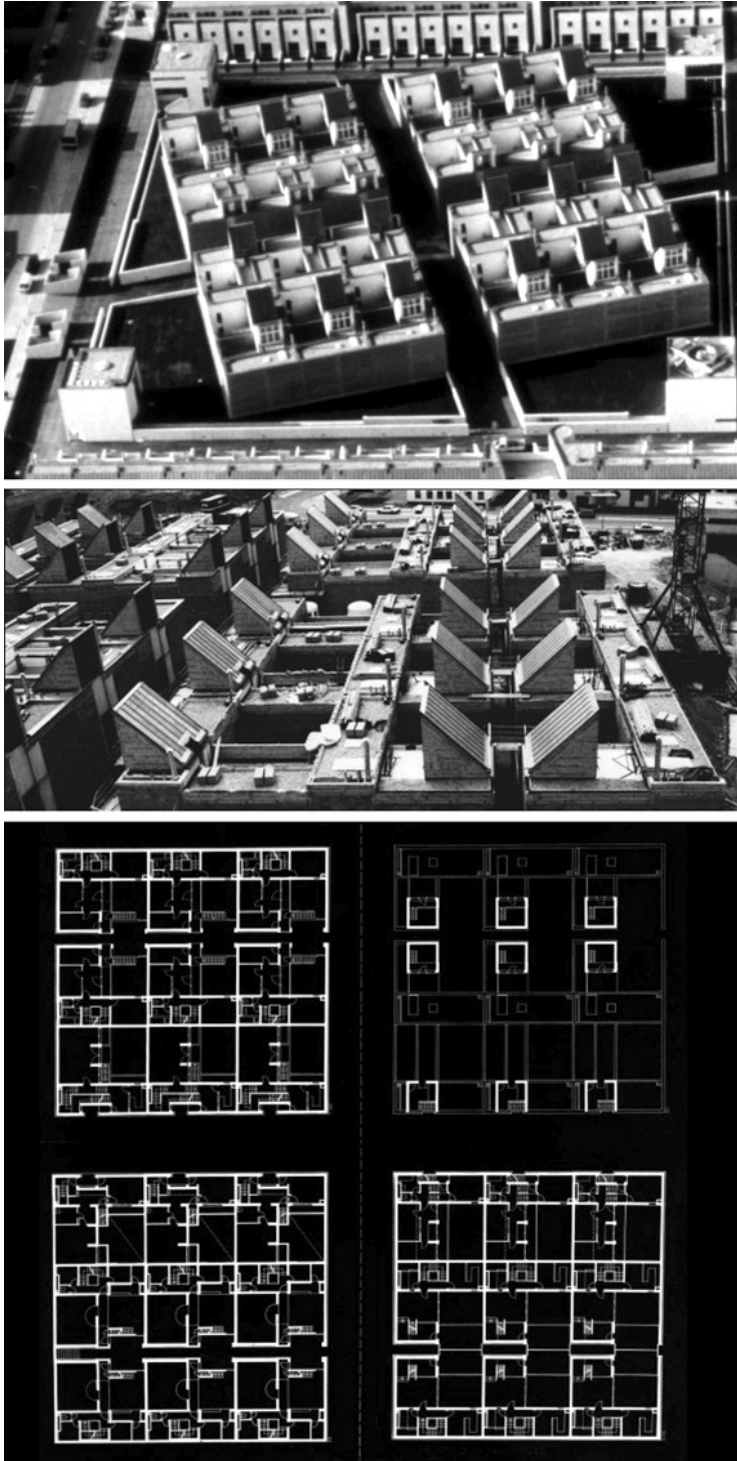
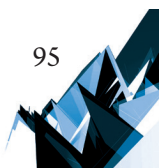


Fig. 3. The Traviatagasse housing estate, 23 district, Vienna (Source: [21])



Fig. 4. The Frauenwerkstatt II housing estate, 10 district, Vienna (Source: [22])





## 6. Conclusion

The diversity, functional differentiation, and integrated design of spaces in the city constitute the core of the future-oriented development of urban areas. Multifaceted quality of life in the city is comparable with the diversity of spatial structures and is closely connected with them. The interest in spatial conditions of the quality of life has been growing; thus, there is a need to heal the urban space and to introduce relevant tools for creating it. Owing to the significance of the spatial order as an inseparable element of sustainable development and quality of life, rationalisation of spatial processes becomes increasingly often perceived. Integrated spatial order can constitute another step towards integrating the tools of spatial planning, which will enable the implementation of integrated concepts in cities based on a coherent multifunctional structure and a high quality of life, and most of all, preventing costly suburbanisation.

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