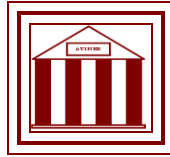# Athens Institute for Education and Research
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Influence of the Regeneration of Large Housing Estates on Sustainable Urban Living Conditions -Benefits or Threats?

Jean Marie Corneille Meuwissen
Head of the Institute of Urbanism,
Graz University of Technology, Institute of Urbanism
Austria

Elham Madadi Kandjani
PhD Candidate
Graz University of Technology, Institute of Urbanism
Austria

Christian Kersten Hofbauer
Scientific Assistant
Graz University of Technology, Institute of Urbanism
Austria

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ATINER's Conference Paper Series

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Dr. Gregory T. Papanikos
President
Athens Institute for Education and Research

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Austria

Abstract

'We really believed, in a quasi-religious sense, in the perfectibility of human nature, in the role of architecture as a weapon of social reform ... the coming Utopia when everyone would live in cheap prefabricated flat-roofed multiple dwellings - heaven on earth' (Philip Johnson, US architect, quoted in Coleman, 1985). There is no doubt that large housing estates have an immense impact on the urban and regional housing markets of most cities in Europe. Most of these large housing estates were built during the post war decades with a hopeful perspective, and glorious and idealistic ideas. It is obvious that the idealistic idea did not come true and in reality many of these large housing estates have became problematic. Although many estates have no major problems and they are still popular, there are some which have had,or still have problems. Nowadays, with rising of incomes and changes in life-style, these estates house a large number of people with low incomes or who are unemployed. In some countries, large numbers of immigrants and minority ethnic groups are living in these areas. In other countries, these areas are increasingly associated with crime and social exclusion. This research explains why so many large housing estates have changed from celebrated urban innovations into problematic areas. Some scientists believe that some changes, or in other words, some initiatives will be needed to improve these estates. Finding out what circumstances have had better effects on these estates will help to get a picture of what could enhance the quality of life in these estates.

Corresponding Author:
Elham Madadi-Kandjani
Institute of Urbanism, Graz University of Technology,
Rechbauerstrasse 12 A-8010 Graz, Austria
Tel: 004369919211922
E-mail: madadi@tugraz.at

Introduction

From the late 20th century on, the development of large housing estates originates from the direct or indirect influence of the *CIAM*, under the major influence of Le Corbusier. Large housing developments focused on the creation of pleasant, spacious, green, light places, light, air and sun. Instead of positive aspiration, however, since the beginning of this century these developments have become outdated and are causing many ongoing problems.

The large housing estates of the post-war period were carefully planned, technically up-to-date and well-designed. But life style changes, the rise of incomes and also the increased unemployment rate have led to a large number of low income households and an increasing association with crime and social exclusion. Over time these estates have been neglected and the lack of building renovation deteriorated services and the associated public space.

According to the book, "Regenerating large housing estates in Europe", five sets of issues are affecting these kinds of estates:

- 'Physical developments
- Economic developments
- Demographic and socio-cultural developments
- Livability
- Safety' (Dekker et al., 2006).

According to the report of the *Brundtland* Commission 1987, sustainability is defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs. It is defined by ecological, social and economic aspects. Since the late 80s, the concept of sustainability entailed the EPBD (Energy Performance of Buildings Directive) and the SET Plan (Strategic Energy Technology Plan) of the European Union. New housing developments should lead to resource saving, energy efficient and low emission urban developments. Generally, this paper will focus on the enhancement of the quality of life and the factors to achieve successful outcomes or to hinder success. Although success factors are dependent on social, political or spatial contexts, the general transferability of quality enhancement in these estates will be examined. Research findings suggest that sustainable urban development seems to be essential for sustainable large housing development.

This paper analyses the question of demolition or reuse, threats or benefits in the urban context according to five sets of issues which are affecting large housing estates, and develops generally applicable guidelines on a social administrational and political level.

The Object: What is a Large Housing Estate?

As Van Kempen et al., mentions, 'large housing estates are a group of buildings that is recognized as a distinct and discrete geographical area. They are also estates planned by the state or with state support' (Van Kempen et al., 2006).

Large housing estates are a new and major form of urban housing that developed after World War II. These estates were built on the basis of uniform urban planning concepts, mostly using industrially pre-fabricated construction systems. They were planned and implemented as large urban projects to create large-scale dwelling units; especially in former socialist countries we find numerous large housing estates the size of a small town. Hence, they are a transnational housing and urban development phenomenon. A glance at Central and Eastern Europe reveals the extraordinary proportions of this phenomenon.

In other words, large housing estates are indispensable for the housing supply, and therefore they play a prominent role in sustainable urban development. In regard to their significance, large housing estates have become an important part of urban renewal policies at a national, state and local level in Europe.

Integrated Urban Development

According to the report of the *Brundtland* Commission 1987, sustainability is defined as 'meeting the needs of the present without compromising the ability of future generations to meet their own needs' (http://app.rfsc.eu/texts?tsh=1&a=8).

The European Commission defined as an approach to the cohesion policy 2014-2020 the combination of the measures concerning physical urban renewal, and the measures promoting education, economic development, social inclusion and environmental protection. The main aim for success in sustainable urban development focuses on the achievement of an integrated approach embracing the various dimensions of urban life- in environmental, economic, social and cultural fields. The planning paradigms for integrated urban development planning are based on existing formal urban planning parameters (master plan, development plan) to promote mixed functions, socio-economically mixed allocation of population, create attractive neighborhoods with communal facilities, green areas, street lighting, waste disposal, foster the densification and vertical growth to economize on the costs of basic infrastructure provision (row houses, multi-storey apartments and avoidance of urban sprawl), and to have an environmentally friendly approach and develop decentralized, low energy systems. Based on the European resolution, the Leipzig Charter integrated urban development plans link the various fields of action and sector planning, and coordinate them in regard to space, timing and content. It defines goals and determines instruments for reaching them.

Ecological and Economical Sustainability

Ecological Development of the Large Housing Estate
Givoni found in his research that 'landscape has a very close relationship with housing and buildings. Urban green areas, both public open spaces, like parks, and private planted areas around buildings can have a marked effect on many aspects of the quality of the urban environment and the richness of life in a city' (Givoni, 1998). Comfortable housing environment planning requires residential landscaping as a counterpart. This planning makes nature visible and tries to characterize ecological elements in residential areas.

As Platt mentioned in his book, 'many studies criticize the human-centered tendency in landscaping, where intensive human recreation and leisure activities may damage ecological processes, ecological integrity and system productivity. To move towards sustainable development, it is suggested that indigenous landscape patterns should be conserved, cultivated and revitalized' (Platt et al., 1994).

On the other hand, Grant discovered in his research that 'in residential communities, ecological landscaping addresses not only environmental protection but also the interrelationship between people and nature, and it should help to form a balanced social and physical environment. Landscaping should help to form sustainable communities that offer opportunities for participation that encourage new modes of interaction among residents. Human beings are living social groups, and active participation by the residents can help to achieve sustainability' (Grant et al., 1996).
Planners cannot create sustainable communities without involving residents in caring for the landscape around them. The formulation of the following principles, stated by Junyan & Beisi (2004), leads to awareness-raising among the users. 'These principles are:

- implementing indigenous plants
- minimizing energy-resource consumption and labor input in landscape maintenance
- increasing biodiversity and micro eco-environment
- continuity of the greenery
- enhancing the relationship between people and greenery' (Junyan & Beisi, 2004).

Nowadays, with high-speed urban development, the gap between people and nature is getting larger and people are turning away from nature. According to the latest research, people prefer to own more greenery in their living environment. However, because of large housing estates and ongoing surface sealing, the environmental problem becomes tangible in most European countries. The original natural topography is forgotten due to human construction. Humans should try to solve the problems they cause themselves and they should try to establish harmony between humans and nature again.

Pursuant to the above description and as Junyan & Beisi (2004) insinuate, ecological landscape becomes a complex concept when applying sustainable principles to the housing environment. The first fact is that sustainability concerns energy input, labor input and waste output, not only for green areas. Therefore the main idea of ecological landscape is to imbue natural eco-models into the man-made residential landscape in order to reduce energy consumption as well as human labor input. The second fact is that the purpose of ecological landscape is to protect local species and at the same time to increase biodiversity. It cares about the quality, not only the quantity, of the landscape,. Residential landscaping may become the best way to compensate the natural destruction resulting from large scale housing developments. The third fact is that residential landscape is different from the urban public landscape because it has a close relationship with the local residents' daily life. Therefore residential landscape requires different design approaches to strengthen the interaction between residents and landscape, and this can be realized in residents' participation. Residential landscape becomes a media of the residents' communication and contributes to a harmonic neighborhood relationship (Junyan & Beisi, 2004).

In conclusion, 'towards a more sustainable housing environment, ecological concept should be studied thoroughly from the very beginning of the development and design process' (Junyan & Beisi, 2004).

Economic Development of Large Housing Estates

Research comparing the rates of unemployment in both large housing estates and cities shows that in the estates the rates are higher and most of the inhabitants are retired, inactive and have low incomes.

According to Pettersson & Chignier-Riboulon (2006) 'a mixture of actions to improve employability, actions to create jobs, to identify unmet needs and to develop services that respond to these needs are appropriate. It is important that these approaches are developed using local educational and other services and are designed in the light of national policies related to jobs and skills. It is also important that they take account of multicultural issues, and recognize difficulties associated with people who are on benefits or who move on and off benefits' (Pettersson & Chignier-Riboulon, 2006).

The basic help for solving the unemployment issue would be to improve basic skills to gain further qualification, to train specific skills, and to provide opportunities to gain work experience. Local residents, whose housing estate is being refurbished, will be trained in building skills on site.

Economic Sustainability

Josef Kaufmann points out in his research about Smart Cities that Public-Private Partnerships are said to be sustainable in their goals by a cooperation of public and private partners and long lasting future oriented contracts. They were part of the public sector in the 1940s in the United States for the purpose of stopping the decline of regions by joining public and private forces. The private partners are usually corporations; Businesses or assets populations such

as funds which are involved in the projects. The direct involvement of private individuals to PPP consortia is rare. Indirectly, however, private individuals may participate by investing in the companies that are involved in the PPP projects or by fund shares. The investments are shares of private limited companies or limited partnership or imaginable as cooperative shares (Kaufmann, 2013).

Out of these PPP models, citizen participation models can be distinguished where it is essential that many citizens of a region, i.e. where local individuals with relatively small investment participate in a project; this is only realized because these individuals invest their money in this regional project.

Social Sustainability

'In return to a housing and built environment perspective, Chiu (2003) identifies three main approaches to the interpretation of social sustainability. The first interpretation equates social sustainability to environmental sustainability. As a result, the social sustainability of an activity depends upon specific social relations, customs, structures and values, representing the social limits and constraints of development. The second interpretation, which she labels 'environment-oriented', refers to the social preconditions required to achieve environmental sustainability. According to this interpretation, social structure, values and norms can be changed in order to carry out human activities within the physical limits of the planet. Lastly, the third 'people-oriented' interpretation refers to improving the well-being of people and the equitable distribution of resources, whilst reducing social exclusions and destructive conflict' (Chiu, 2003).

Socio-cultural Developments

A major challenge in large housing estates is the ageing society and stigmatization of certain housing areas due to the lack of social cohesion.

'Many estates have social problems related to a lack of meeting places, drug abuse and drug dealing, and criminal activity, which may contribute to the stigmatization of the area. Originally, the community feeling on many estates was strong. The population consisted mainly of young affluent working-class families. Nowadays a new feeling of local solidarity has emerged in many cases, sometimes as a result of living together in harsh situations' (Dekker et al., 2006).

As Tapada-Beretli & Ostendorf (2006) states 'large housing estates face many social problems. They may have a high concentration of poor people, a lack of social cohesion, social conflicts and problems of crime and the fear of crime. While these problems are likely to be addressed principally through social and economic policies, it may be appropriate to change the physical character of the estate, in conjunction with other policies, to address social and economic problems. It may be advantageous to address issues related to layout and mix of properties, and perhaps tenures, to introduce opportunities for

different households and to break up areas that attract problems' (Tapada-Beretli & Ostendorf, 2006).

To counteract the said problems regarding revitalization of the estate, or refurbishment and redesigning the estate, measures must be taken to improve the built environment (Tapada-Beretli & Ostendorf, 2006).

This approach of refurbishing social estates only solves energy saving, but excludes the basic challenges of revalorization of urban areas and the social cohesion in city district.

Further on, Rowlands & Dekker (2006) argue that 'more social cohesion means, for example, better social contacts, more agreement on what is allowed and what not, and more social solidarity. Increasing social cohesion can also be seen as a way of contributing to a solution to social, safety and physical problems in large housing estates' (Rowlands & Dekker, 2006).

In order to improve social cohesion, Kearns and Forrest (2000), have identified five elements of social cohesion:

- common values and a civic culture
- social order and social control
- social solidarity and reduction in wealth disparities
- social networks and social capital
- place attachment and identity (Rowlands & Dekker, 2006).

According to Rowlands & Dekker (2006) for the implementation of these five elements, including all stakeholders of the process, the following measures fostering social cohesion are:

- facilitate inter-group communication
- facilitate new networks
- effective residents empowerment
- fostering an attachment to the neighborhood and shared identity
- providing a range of housing options
- reducing inequalities (Rowlands & Dekker, 2006).

'If social cohesion is to have a positive influence on large housing estates, it must be accompanied by physical and economic improvements that reduce inequality. In addition, all developments at estate level, but especially social cohesion, are influenced by developments in the city and the country they are part of and cannot be seen in isolation' (Rowlands & Dekker, 2006).

To summarize, 'social cohesion is viewed as a characteristic of a society dealing with the connections and relations between societal units such as individuals, groups, associations as well as territorial units (McCracken 1998). The sociologist Emile Durkheim was the first who used the concept of social cohesion. He considered social cohesion as ordering features of a society and defined it as the interdependence between the members of the society, shared loyalties and solidarity (Jenson 1998b). Aspects often mentioned in describing social cohesion are the strength of social relations, shared values and

communities of interpretation, feeling of common identity and a sense of belonging to the same community, trust among societal members as well as the extent of inequality and disparities (Woolley 1998, Jenson 1998b)' (Berger-Schmitt, 2000).

Livability and Safety

Nowadays a mix of functions is required in the development of new housing estates. The lack of this mixed-use is typical for most of the existing estates which leads to safety problems and conflicts about the maintenance of public space. Increasing mobility, ongoing air pollution, and the lack of district management has led to many life quality problems in these housing areas.

As Zajczyk & Mugnano (2006) mention, 'large housing estates are often located in the peripheral part of the cities. For this reason, the presence and quality of local services is a fundamental issue for the quality of life of the residents. This relates to the range of services needed by residents: educational services, medical services, economic and commercial facilities and cultural and sport facilities. The services not only respond to the needs of residents, but may also foster social cohesion and prevent social exclusion. Indeed if local services meet the needs of the wider community and attract customers from outside of the estate, this may make an important contribution to regeneration' (Zajczyk & Mugnano, 2006).

'Public space is a major determinant of an estate. The design and organization of public space affects the image that the neighborhood projects to both its residents and those outside it. If properly planned, managed and used, public space provides the opportunity for social contact, which occurs in entrance courts, on playgrounds, on green areas and on streets and squares. Public spaces provide the residents with a place to relax and to communicate with neighbors and others. (…) Public space in large housing estate must be considered as an essential part of the residential environment. Its design must create an attractive and secure environment that promote a sense of place and is enjoyable to live in' (Sendi, 2006).

'In order to achieve the desired sense of neighborhood or community cohesiveness for the residents, Butler (1968) recommends that the following important principles be observed when planning or remodeling large housing estates:

- make recreation opportunities possible for all, regardless of age, color, race, creed, or economic status
- provide areas and opportunities that enable a great variety of recreation activities and serve a wide range of recreation interests
- include areas that differ widely in size, location, natural feature, and potential development and which consequently serve different recreation uses and different population groups

- provide one or more community rooms to serve as lounges or places where young people or adults can drop in outside school hours under proper sponsorship or supervision; attractive, well-lit, and well-ventilated ground floor rooms prove most satisfactory for such purposes' (Sendi, 2006).

An attractive public space (green space, traffic areas, and open space) supports the identity of the district and creates a livable compact city. A growing city has to pay attention in particular to land saving / space-efficient urban development, as a number of effects depend directly on the building sites consumption.

Safety

According to Aalbers (2006) 'safety and feelings of insecurity can be experienced at different levels: safety at home, safety in housing environment, safety at the city level, traffic safety, and national and international safety. Safety in the housing environment will be our main focus, but one should realize that safety for estate residents also means safety at home and safety in traffic. Crime and physical deterioration are the most important factors associated with poor neighborhood quality (Greenberg, 1999). Feelings of insecurity are an important reason for people to move. Increasing safety can increase the level of satisfaction of estate residents and decrease their willingness to move out. Safety thus produces more stable neighborhoods' (Aalbers, 2006).

According to Oscar Newman, a successful strategy consists in generating "eyes on the street" to improve the connection between private and public spaces, which may include watching the children play from the kitchen or living room, but also a sense of social control (Aalbers, 2006).

**Life Quality Indicators (LQI) for Large Housing Estates**

A high quality of life for citizens is an essential feature of large housing estates in cities. These include satisfaction with the infrastructure facilities in the living environment, the living and working environment as well as numerous environmental indicators, such as air and water quality. The (subjective) quality of the so-called "quality of life indicators" (LQI) are summarized in the following areas: local shopping, health issues and service facilities, cost of living, housing, environmental degradation, recreation and leisure facilities, security situation, job situation, traffic conditions, education and child care facilities and coexistence.

Maslow's Hierarchy of Needs

The earliest and most widespread version of Maslow's (1943) *hierarchy of needs* includes five motivational levels. This five stage model can be divided into basic (or deficiency) needs (e.g. physiological, safety, love, and esteem) and growth needs (cognitive, aesthetics and self-actualization) (http://en. wikipedia.org/wiki/Abraham_Maslow).

Abraham Maslow developed a model in which basic, low-level needs such as physiological requirements and safety must be satisfied before higher-level needs such as self-fulfillment are pursued. Every person is capable and has the desire to move up the hierarchy toward a level of self-actualization (http://www.lakelandschools.us/blogs/theroad/?p=53). Maslow's hierarchy of needs is shown in the Figure 1.

Figure 1. *Maslow Hierarchy of Needs*
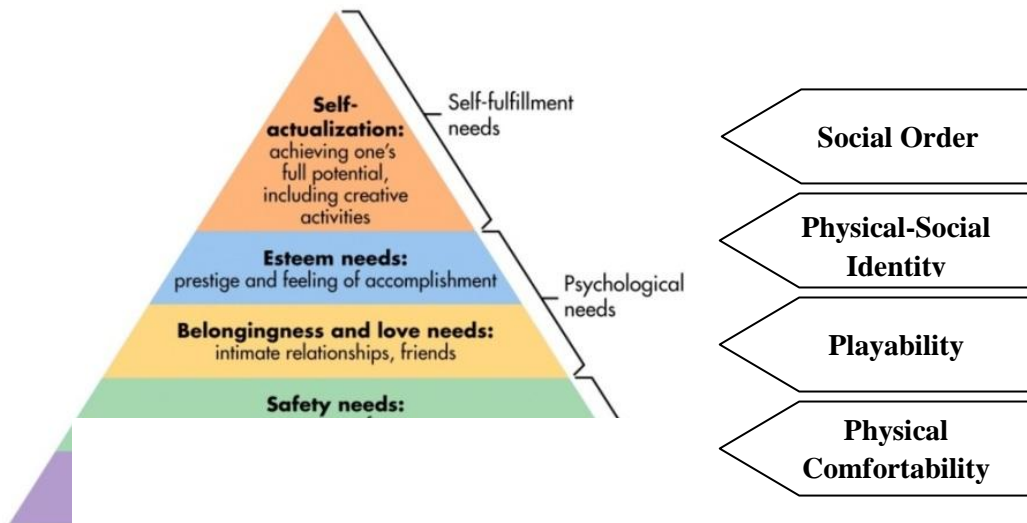
The hierarchy of human needs model suggests that human needs will only be fulfilled one level at a time. According to Maslow's theory, when a human being ascends the levels of the hierarchy having fulfilled the needs in the hierarchy, one may eventually achieve self-actualization. The first four levels are known as Deficit needs or D-needs. This means that if you do not have enough of one of those four needs, you will have the feeling that you need to get it. But when you do get them, then you feel content. These needs alone are not motivating. Maslow wrote that there are certain conditions that must be fulfilled in order for basic needs to be satisfied. For example, freedom of speech, freedom to express oneself, and freedom to seek new information are a few of the prerequisites. Any blockage of these freedoms could prevent the satisfaction of the basic needs.

Implications for Housing Estate

As shown in Figure 2, the final Model for Social Sustainability, if Maslow's theory holds, presents some important implications for housing. There are opportunities to empower large housing estates through satisfying the following needs for social sustainable urban development:

- Physiological needs: food supply, rest areas and means to purchase the essentials of life.
- Safety Needs: Provide a safe housing environment and generally secure district environment.
- Social Needs: Create a sense of community with social events.
- Esteem Needs: Recognize achievements to make citizens feel appreciated and valued.
- Self-Actualization: Provide citizens a challenge and the opportunity to reach their full participatory potential.

Figure 2. *The Final Model for Social Sustainability*
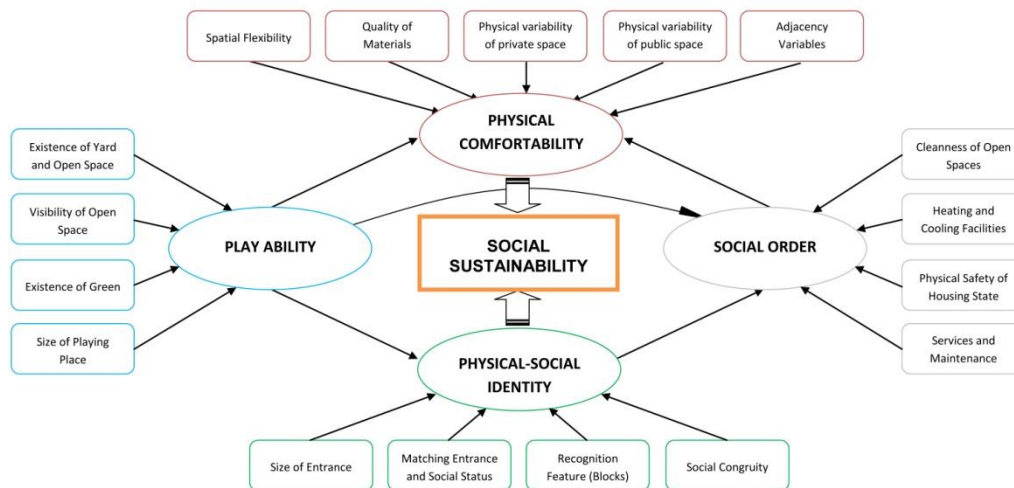
Conclusion

Attractive urban neighborhoods for the future call for innovative urban approaches today so that large housing estates can develop into independent and multifunctional urban districts where home, work, education, service provision and recreation lie close together. A socially compatible, environmental-friendly and economically viable design of large housing estates must be integrated into the sustainable development of our towns and cities.

Such sustainable planning strategies require participation and the involvement of the local tenants and stakeholders who could participate in conferences on sustainable development. By accepting the model of *Baugruppen* for housing developments, and between users such as boarding

houses, growth of the dual principle and the affordability of land and housing could be drastically reduced.

This results in the following strategic approaches for the development of large housing estates into sustainable urban neighborhoods:

- Strengthening economic viability by creating local employment,
- mixing of land uses compatible with housing; optimizing densities for action, personal expression and building,
- securing social and demographic diversity,
- wise stewardship of the natural environment.
- functional and spatial integration into the urban and landscape structure.
- careful use of the built environment
- diversity and adaptability of building and spatial structures
- use-related and varied design of open spaces
- developing of independent and characteristic urban areas.
- diversity and openness of urban development concepts and organizational structures.

Based on these approaches, concrete utopias can be developed that open up both brighter prospects for affordable large housing estates and are realistic enough to be feasible for sustainable local urban planning.

In other words design cannot explain the social problems and re-design cannot solve them.

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