

within the contest in autumn 2016. Special thanks go to Lucile Fauviaux and Héloïse Gautier, international trainees at Urban Planning institute of the Republic of Slovenia, for their great collaboration in preparing this paper. This paper was partly made possible with the support of Trans-Domain COST Action TD1408 Interdisciplinarity in research programming and funding cycles (INTREPID).

ID 1698 | VALUE ADDED AS A TOOL IN PARTICIPATORY APPROACH TO URBAN REHABILITATION PROJECTS. A CASE STUDY IN YEREVAN

Astghik Grigoryan¹; João Manuel Carvalho¹

¹Universidade de Lisboa, Faculdade de Arquitetura / CIAUD

astghik.l.grigoryan@gmail.com ; jmc@fa.ulisboa.pt

1 INTRODUCTION

1.1 BACKGROUND

In the conditions of ever growing urbanization and continuous societal transformations as well as the increasing prominence of the sustainability agenda the issue of urban quality is subject to prior consideration worldwide (Brenner and Schmid, 2015). As acknowledged by Healey (1997), it is difficult to avoid the impact of economic restructuring on the landscape and social and economic life of many cities which were used to grow within certain economic structure and also supported by the state. In many post-socialist countries the issue is even more pressing due to existing urban decay as a result of major institutional transformations, economic crisis and political discrepancies. In particular, the collapse of the socialist system in these countries was followed by a number of economic, social and legal reforms, due to which the land and property ownership in most of the countries has been transferred from public to private sector. However, in most cases the state transferred to private hands not only the ownership to the property but also the problems related to the quality of that property as well as the responsibility for its further maintenance. The issue has a specific importance with regard to multi-unit housing since the latter occupies the largest share of urban fabric in many countries worldwide, and in majority of post-socialist countries in particular.

If considering that the most fundamental idea of sustainable development determined in the World Commission on Environment and Development (WCED) Report is “development which meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987), yet, building deterioration will inevitably result in higher economic loss, more environmental waste and poorer social living conditions, in other words in decrease of urban quality.

Alterman (2010) claims that the issue regarding sustainable legal-financial mechanisms to ensure the long-term maintenance of condominium buildings has received very limited attention so far. She points out several factors that make multi-owned tower buildings particularly vulnerable to deterioration and decreased property values, e.g. that they are more complex and therefore create higher maintenance costs and less possibilities of structural modifications, which causes a greater risk for a diminished relative value and faster deterioration, that large investments are needed for large scale repair, upgrading and renovation, and that because the costs are not consistent over time makes it more difficult to find a mechanism for financing the long-term maintenance.

In many former socialist countries uncertainty in private and common ownership parts within residential urban space as well as imperfect management schemes resulted in gradual depreciation of common parts of apartment buildings and surrounding land, which has led to decline of urban quality.

Armenia presents certain specificity with this regard. Major transformations in the country took place mainly from the late 1980s and beginning of 1990s associated with the collapse of the soviet planned system and commence of movement towards capitalism.

This recent history of Armenia has its implication when considering the role that property management features might have on countering urban decline. In particular, due to immature institutional framework as well as lack of property management schemes and limited public resources, the first decade after the collapse of the soviet system in the country can be characterized by an underdeveloped real estate market and a rapid deterioration of the urban neighbourhoods, including housing and other property.

As a result of privatization almost all real estate property belonging to the state both in urban and rural areas was transferred into private ownership of the users/dwellers¹. With regard to apartment buildings the residents of apartments became owners thereof; however, the right to common property within the apartment buildings as well as to the land attached to the buildings remained uncontrolled due to lack of supportive legislation. The uncertainty between public-private ownership rights had its negative impact on most of the urban neighbourhoods throughout the territory of Armenia, and especially in Yerevan. In many cases the common use properties in the urban neighbourhoods, including within apartment buildings have been left to their own fate and were subject to volunteer intervention by the residents. Also, due to imperfect regulation of management and maintenance of apartment buildings and lack of urban and property management in practice the buildings started to deteriorate rapidly thus lowering the quality of urban space.

Notwithstanding the appearance of neoliberal movement in urban development of Yerevan, as well as a number of state-supported projects on management and maintenance of apartment buildings, the quality of urban space has been suffering intensively and continuously up to now. Hence the declining quality of urban space in Yerevan can be represented in two main directions: 1) low quality and unplanned new developments mostly in the centre of the city paralleled with 2) lack of maintenance and management of existing housing and real property stock, inherited from the Soviet period.

The methodology that is proposed within the framework of on-going research project envisages the development of tools through using collaborative management schemes in order to enhance citizen (residents) participation and integration of private investments in urban renewal projects, in particular regarding residential and mixed-use urban spaces, thus minimizing the share of public funding. In this paper the authors will discuss one of such approaches, which is the condominium management, as well as the prerequisites for successful application of such approaches, namely the enhancement of value-added by the project to each participant.

In the conditions of scarce public resources the promotion of private property-based investment projects may become a sound solution in regenerating urban residential spaces and in overcoming urban decay. Such projects shall become successful if applying a collaborative approach through public-private partnership models where the enhancement of value added to the project shall serve as a main tool.

Thus the current paper will discuss the role of “value-added” and “participatory approach” in improving the quality of urban space and illustrate it through a case study analysis.

1.2 AIM AND METHOD

The aim of the current discussion is to disseminate the observations achieved while conducting research on the theme “Property-based urban management models and urban decay in post-socialist transitional societies”. For the purpose of discussion, the urban space is composed of private and public space within boundaries that correspond to a specific problem-area; the urban space is envisaged as mixed-use, though at this stage we have in mind mostly the residential use. The quality of urban space is explored through selected literature review with the aim of finding an adequate list of indicators for the purpose of the research (Annex 1). The participatory approach we intend to explore for the improvement of the quality of urban residential space is based on the idea of management of common property and so we resort to the discussion of the condominium management approach as a settled example of common property management. The land attached to apartment buildings is included in the common property to be managed since the former is taken as an indelible part of the latter. The pivot-concept for launching the participatory approach is the value-added to property by the urban renewal project for the defined urban space. A purposeful concept of value-added is therefore introduced, based on theoretical discussion and

¹ In fact, 96% of the republic's housing stock was privatized by 2000 (HfH Armenia, 2010).

illustrated through a case-study based on an analytical approach. The data used for the calculations is provided by stakeholders acting in the urban development field in Armenia as well as collected through several surveys previously conducted in the field. The aim of the case study presentation is more illustrative at the current stage rather than comprehensive and is subject to further elaboration within the framework of the on-going research project.

2 THEORETICAL FRAMEWORK

2.1 QUALITY OF URBAN RESIDENTIAL SPACE

Historically, in British planning debate the discussion of the impacts of development has been closely linked to the question of betterment, or in other words to the improvement of urban quality (Healey et al. 1995).

If considering the quality of urban space with regard to urban design and architectural issues the definition of the concept is provided through more specific features within the framework of the Bristol Accord. Among these features are included: (1) "Sense of place – a place with a positive 'feeling' for people and local distinctiveness" (2) "Appropriate size, scale, density, design and layout, including mixed-use development, that complement the distinctive local character of the community" (3) "High quality, mixed-use, durable, flexible and adaptable buildings, using materials which minimise negative environmental impacts". The Commission for Architecture and Built Environment CAFE (established in 1999 by the first mandate of Tony Blair's Labour Government) has provided a broad range of publications to clarify what is meant by a Well Designed and Built city or project. The assessment tool used by the CAFE is the Design Review, based on the principle that "Good design is fit for purpose, sustainable, efficient, coherent, flexible, responsive to context, good-looking and a clear expression of the requirements of the brief". A valuable attempt has been made in UK to combine expert assessments with the opinions of stakeholders (end users, investors, developers, building managers, neighbourhood associations, etc.), which is the Design Quality Indicators (DQI) - "a method of evaluating the design and construction of new buildings and the refurbishment of existing buildings" (Borghi, 2010).

The concept of urban quality is differently explored by Insch and Florek (2008). The authors tried to illustrate the interrelation of the value, quality and expectations of residents with regard to place satisfaction. In their discussion on place satisfaction in the case of the city's residents they claim on a direct link between the quality of life and the quality of place or environment where people live (Insch and Florek, 2008). According to the authors, research in the field of human ecology and sociology more closely examines the interactions of humans and their environments and in the case of cities focuses on the neighbourhood as a place to live. In addition, they state that from the aspects of psychology and marketing measures the neighbourhood satisfaction contains objective neighbourhood characteristics, such as level of urbanism (city, urban, suburban, and rural), socio-economic status, income, population density etc., and subjective mental constructions of the neighbourhood, including such qualities as social environment (neighbours), noise, traffic, neighbourhood maintenance, safety and security, convenience for shopping, etc. Through referencing La Gory (1985) the authors mention that subjective assessments of the physical and social context of the neighbourhood significantly influence their satisfaction, whereas objective contextual variables, related to satisfaction, showed little causal impact (Insch and Florek, 2008).

Some indicators of the quality of urban space are considered as an important factor also for attracting future investments. According to Sarău (2015), in order to be a strong competitor in attracting investments, a place must demonstrate convincingly that their city residents enjoy a higher level of well-being and satisfaction than the competitive places.

According to Insch and Florek (2008) when considering the urban space as the city itself or a larger compound of the city, important factors taken into account include the welfare and satisfaction, employment, infrastructure, transport network, education and learning and development opportunities. Therefore, achieving a high level of satisfaction of residents should be an objective of places. Furthermore, they argue that the ultimate goal of the places is not financial success but the welfare and satisfaction of their residents. The authors prove their argument by referencing Guhathakurta and Stimson (2007, cited by Insch and Florek, 2008) as: "after the decline in quality of life crosses a threshold, growth may slow down or even become negative". This statement proves the very distinct relation of urbanism with the

economic growth of the country, thus proving the actuality of the selected research problem and the methods to approach it.

Song and Knaap (2007) offer a quantitative classification of neighbourhood type, through identifying relevant attributes of physical form and computing indicators of those attributes, such as street pattern, plot density, land-use mix, accessibility, transportation infrastructure and open spaces, based on parcel-level Geographic Information System (GIS) data. Factor analysis is then used to derive generalized dimensions of neighbourhood character based on the raw attribute data.

Quite a different approach to the quality of urban space is introduced by Cilliers et al. (2014), who argue again that the urban space is valuable due to people attached to it and that the old spaces which have story behind them and thus are characterized by their identity, can be much more valuable than the new developments. This idea supports the intention of the on-going research project to improve the urban space quality through redevelopment and through adding value to the urban space instead of complete demolition and rebuild.

2.2 CONDOMINIUM MANAGEMENT AS A PARTICIPATORY APPROACH IN IMPROVING URBAN SPACE QUALITY

The discussion of condominium-based management models shall be based on exploration of the concepts: 'condominium', 'common ownership' and 'management of apartment buildings'.

Condominium (apartment ownership) can be considered as a form of three-dimensional (3D) property right. It includes the use of a three-dimensionally delimited part of a building. Condominium is a common and wide-spread form of 3D property utilization and exists all over the world in e.g. Australia, Canada and South America (van der Merwe 1994; Paulsson 2007). Discussing an example of Vancouver, Harris (2011) reflects on the capacity of condominium as a certain form of residential property ownership and its contribution to the transformation of the urban landscape. According to Lippert and Steckle (2016) the inner governance of condominiums profoundly matters for understanding urban governance and life but has so far been neglected in urban studies.

There are two main forms of condominium, namely the condominium ownership type, or the dualistic form, and the condominium user right type, or the monistic form (Paulsson 2007). In the condominium ownership type each apartment owner owns the certain private space he or she occupies, and the common parts of the building and surrounding land usually are owned jointly by all the owners of the building. This type can be found, for example, in most of the former Soviet countries, including Armenia, and was recently also introduced in Sweden (Paulsson 2007; Paulsson 2013). The condominium user right, on the other hand, is a type where the apartment occupants jointly own the entire building and surrounding land together, including private and the common parts, but the share of the property each owner has, gives the right to occupy a specific private space in the building. This type exists, for instance, in the Netherlands (Paulsson 2007).

There are also more indirect forms of condominium where a legal person stands between the resident and the property as the formal owner (Nordisk Ministerråd 1997). The legal person could be e.g. a cooperative, an association or a limited company, such as a tenant-ownership form in Sweden (Lilleholt et al. 2002) or a limited company system for apartment ownership (also called stock cooperative or share-block scheme) in Finland (Falkenbach et al. (eds), 2009).

Within the condominium scheme each private owner has got a share of the common property of the building and surrounding land and other facilities that the private owners own or control in common. This share can be based on e.g. equality, relative size or relative value of each private space, or a combination of such. The ownership fraction can determine the responsibility each owner has for the costs of management of the building and association, as well as for maintaining and repairing the common parts of the property (Grigoryan, Paulsson, 2017).

The land that exists below and around the apartment building is usually included in the common property. This land becomes common property if the building is not surrounded by municipal or state land. In those cases easements are granted for the owners to use the land for access to their building, such as roads or

pavements (Rabenhorst 2001). However, in former socialist countries this may cause difficulties. When buildings and surrounding land went from public to private ownership, how much land to include was fixed to the “footprint” of the building, i.e. the land under it, which creates difficulties for the apartment owners as to getting a right to use the surrounding land. Solutions that are applied are to include the land just under the building, or including the land to one meter around the building as well, although it might still be unclear to whom the land beyond this belongs. Another solution has been to let the municipality keep the ownership of the land and to grant long term user rights to the association, by which the owners will be responsible for maintaining the land (Rabenhorst 2001). In Armenia, for instance, this type of solution was applied to the existing (inherited from Soviet period) privatized housing stock, (RA Government Decree No 1855-N dated 30.11.2006). If more than one condominium building would like to use the land between the buildings, the owners in these buildings will jointly have to decide how to use and manage this land.

When studying condominium internationally, there are several factors that seem to have created problems and that can be considered as important for creating a successful and lasting system for apartment ownership (Paulsson 2007). Thus, a factor that seems to create problems is management, which in general is important when dealing with individuals sharing the same resources (Ostrom 1990). A structured and efficient organisation for management is crucial for the commons and the community of owners to function properly, as well as for financial institutions with an interest in the property. This becomes more difficult when a large number of co-owners are involved, where there is also a need for enforcement mechanisms to promote cooperation and efforts from the co-owners (Tracht 2000).

The above discussed condominium management practices provide viable schemes for management and maintenance of common interest properties, and although used for management of common ownership within apartment buildings, they can successfully serve as basis for management of urban spaces within the city neighbourhoods.

2.3 VALUE-ADDED IN URBAN RENEWAL PROJECT

Based on conceptualization of the value by CABE (2006) provided below in Table 1, it is obvious that the benefits of identifying a linkage between better urban design and enhanced economic value, as well as social and environmental value, are potentially significant. The research conducted by Carmona et al. (2002) provides analysis of key stakeholders in urban design and their detailed views on the importance of a good urban design for the value added.

Based on this research, the authors state that the positive results which might flow from being able to demonstrate the positive effects of well-designed spaces are potentially large (Carmona et al., 2002). They further claim that through illustration of the value added as a result of better urban design, or assessing its costs and benefits, is part of the effort to link design quality to the decision-making logic of private sector development interests. From the other side there is a need to develop an understanding of how the public sector can modify the institutional incentives and barriers and the regulatory context in which decisions about design are made (Carmona et al., 2002, p.146).

Type of value	What does it mean?	How it is measured?
Exchange value	The building as a commodity to be traded, whose commercial value is measured by the price that the market is willing to pay. For the owner, this is the book value, for the developer the return on capital and profitability. Also covers issues such as ease of letting and disposability.	Book value Return on capital Rental Yield
Use value	Contribution of a building to organisational outcomes: productivity, profitability, competitiveness and repeat business, and arises from a working environment that is safe in use, that promotes staff health, well-being and job satisfaction, that encourages flexible working, teamwork and communication, and enhances recruitment and retention while reducing absenteeism.	Measures associated with occupants such as satisfaction, motivation, teamwork. Measures of productivity and profitability, such as healthcare recovery rates, retail footfall, educational exam results, occupant satisfaction.
Image value	Contribution of the development to corporate identity, prestige, vision and reputation, demonstrating commitment to design excellence or to innovation, to openness, or as part of a brand image.	Public relations opportunities Brand awareness and prestige The recognition and 'wow' factors.
Social value	Developments that make connections between people, creating or enhancing opportunities for positive social interaction, reinforcing social identity and civic pride, encouraging social inclusion and contributing towards to improved social health,	Place making Sense of community, civic pride and neighbourly behaviour Reduced crime and vandalism.
	prosperity, morale, goodwill, neighbourly behaviour, safety and security, while reducing vandalism and crime.	
Environmental value	The added value arising from a concern for intergenerational equity, the protection of biodiversity and the precautionary principle in relation to consumption of finite resources and climate change. The principles include adaptability and/or flexibility, robustness and low maintenance, and the application of a whole life cost approach. The immediate benefits are to local health and pollution.	Environmental impact Whole-life value Ecological footprint.
Cultural value	Culture makes us what we are. This is a measure of a development's contribution to the rich tapestry of a town or city, how it relates to its location and context, and also to broader patterns of historical development and a sense of place. Cultural value may include consideration of highly intangible issues like symbolism, inspiration and aesthetics.	Critical opinions and reviews Professional press coverage Lay press coverage.

Table 1. Types of property value (Source: Value handbook, CABE, 2006)

According to the case studies made by the authors in UK, it is obvious, that notwithstanding various barriers (certain commercial pressures, decisions that are often made by the bodies far removed from their impact on the ground), through demonstrating the positive, even if potential, return from the better urban design, the positive change in private investment as well as public institutional decisions shall emerge. In addition, a demonstration that better urban design adds value might provide a powerful incentive to overcome many of the barriers that together hold back a general improvement in urban quality (Carmona et al., 2002). However, it might be taken into account that at the same time other institutional, investment, social and cultural barriers still remain challenging and of course not all the stakeholders will change their approach and persuasions during rather long period.

Based on various motivations and perceptions of different stakeholders of urban design projects, Carmona et al. (2002) divided them into two main groups: with public interests and with private interests, provided that the community interests may relate to both groups (Table 2.).

According to a number of researchers, in this process the key concern is not with an absolute measurement of value but with the processes through which stakeholders change their perception of the value.

Based on six different case studies on requalification of urban spaces conducted in UK the authors claim that “indeed from the perspective of key stakeholders better urban design adds value and does so in economic, social and environmental terms. In addition, the results indicated that almost all stakeholders see for themselves the value added by the project. In particular, in case of everyday users, the latter benefit from the economic advantages of successful regeneration, including access to a better-quality environment and an enhanced range of amenities and facilities.

Stakeholders with private interests	Stakeholders with public interests
Landowners	Planning authorities
Funders (short-term)	Highways authorities
Developers	Fire and emergency services, police authorities
Design professionals	Building control
Investors (long-term)	
Management agents	
Occupiers	
<i>Local communities</i>	

Table 2. Main stakeholders of urban design project (Source: Carmona et al., 2002)

Based on the conducted analysis it can be also mentioned that it is not necessary to make huge investments in order to add value to the project. Instead, according to Carmona et al. (2002, p. 165) “...better urban design can then be used as an important sales pitch to differentiate products with modest, but fundamental, improvements in urban design, such as better external linkages, more ‘life-giving’ uses, and configuration of buildings to face public spaces”.

ILLUSTRATION OF THE VALUE ADDED IN THE URBAN DEVELOPMENT PROJECTS

Following the research focus we intend to suggest a model which, based on the power of the private ownership and collaborative management will improve the quality of urban space by adding value in both social and economic context. The social, cultural as well as environmental contexts of value and value added in urban development project have been reflected previously. Under this section we are going to highlight that the involvement of private owners in an urban area upgrading has to go through evidencing that a significant part of the net benefits of the intervention will be allocated to them. Thus the composition of enhanced economic value of the urban intervention project is going to be revealed hereunder. Based on valuation theorists the property shall have development potential once an element of latent value can be released by the expenditure of capital upon it (Ratcliffe et al. 2004). Generally this may arise through different types of intervention, including development of a plain site according to approved urban plan, or redevelopment through demolition and replacement of existing buildings or even through upgrading the quality of existing buildings and/or urban space. In other words the financially balanced nature of urban planning projects shall be explored through value added by the intervention. The calculation of the ex-ante value added is considered as an important instrument for various property-based approaches in urban management, namely the public-private partnerships (PPP), land readjustment schemes (like the “perequação” tool in Portugal) and even condominium-based management models. In this context the value added can be interpreted as planning gains, which principally differ from planning obligations, since the latter are non-negotiable compulsory contributions of real estate developer to the public domain required by the profile of the specific development business. Whereas the planning gains are the outcome of a voluntary negotiation between the public and private parties, through which a share of the developer’s normal business margin is given up in favor of the local community or private property owners.

It is quite important for the urban development project to potentially contain this share of added value, since it has to be the part of the global value derived from the urban development project that is not assigned to costs and to the minimum business margin the developer requires. This share or the so called “shareable value” is indeed the value added of the urban project. We must however acknowledge that the minimum business margin the developer might be willing to accept may not correspond to the normal business margin regarding his other previous real estate developments. This is the core concern for revision of the urban intervention project and negotiating on higher expected returns.

Thus the enhanced economic value of the urban project, including the “shareable value” will be possible to calculate through urban development valuation, whereas for the mentioned purpose the residual method

shall be applied (Ratcliffe et al. 2004). The conventional approach to a residual valuation is based upon the following simple equation:

$$\text{Gross development value} - (\text{costs} + \text{profit}) = \text{residual value}$$

The assumption is therefore that the value added is the difference between the expected value (i.e., some future value expectation but without knowing if, when and how that expectation would be fulfilled) and the “value of the set of properties included in the urban development project once the urban design is defined” (i.e., in their present condition but with the development potential settled). The expected value has to be discounted for time period and uncertainty (considering the discount rate). Thus, taking into consideration the above equation the value added in the urban intervention project will be determined as follows:

$$EV - TC - FC - BM - RV, \text{ whereas}$$

EV - value of the properties generated by the settled urban design
TC - total costs required to achieve the urban layout that corresponds to the new properties
FC - financial costs
BM - developer's business margin
RV - value of the set of initial properties

These subtractions take place within the methodological framework that allows for the determination of the Net Present Value (NPV) and Internal Rate of Return (IRR).

The above presented theoretical approach will be applied to a previously selected residential urban space in one of the neighborhoods of Yerevan, Armenia and will be illustrated in the following section.

3 CASE STUDY OBJECT IN YEREVAN

A mixed-use urban space within an urban neighbourhood in Yerevan (Figure 1) shall serve as a sample for illustration of the improved quality of urban space and enhancement of value-added for the residents and project stakeholders.

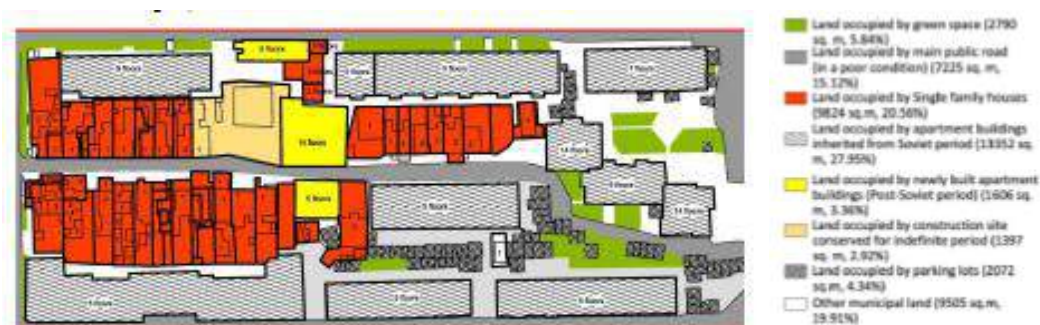


Figure 1. Illustration of present plan of the urban space according to property types and ownership types (the scheme is developed by the authors based on data provided in www.e-cadastre.am)

Total area of case study object is 4.77 ha. Total area of private property (lots) in the case study object is 2.61 ha. The area can be described as a residential urban space in the big centre of Yerevan which includes:

- Single family houses (0.5 ha)
- Apartment blocks inherited from Soviet period (1.4 ha)
- Newly built apartment building of Post-Soviet period (0.1 ha)
- Construction site conserved for indefinite period (0.03 ha)
- Public road in a poor condition (0.72 ha)

The quality of urban space is low (based on indicators provided in the Annex 1), however the market value of the properties in the area is rather high (due to land value), thus potentially, the property owners of the area can be interested in improvement of urban space quality in the area. In order to substantiate the

potential increase in property value for the case study urban space, a newly developed area in close proximity to the case study object (however located in the land zone with less market value) occupied with mixed-use (residential-commercial) buildings has been analysed and compared with the case study object. Based on this analysis the main comparative qualities of the newly developed area include:

- Considerable share of public and green space within urban space (about 27%),
- Developed infrastructure, including roads,
- New and fresh look of the buildings,
- Existence of underground parking zone
- Well-organized management and maintenance of the urban space.

Considering these qualities the average market value of residential space in both areas vary as follows:

Case study object¹

- EUR 600/sq m (apartments in the buildings from Soviet period)
- EUR 800/sq m (apartments in the buildings from Post-Soviet period)

Comparative object²

- EUR 1150/sq m (apartments in the newly built multi-unit buildings)

Based on the comparative analysis the newly proposed urban plan aimed to improvement of the quality of urban space and increase of the value of properties for the case study object is illustrated below (Figure 2.):

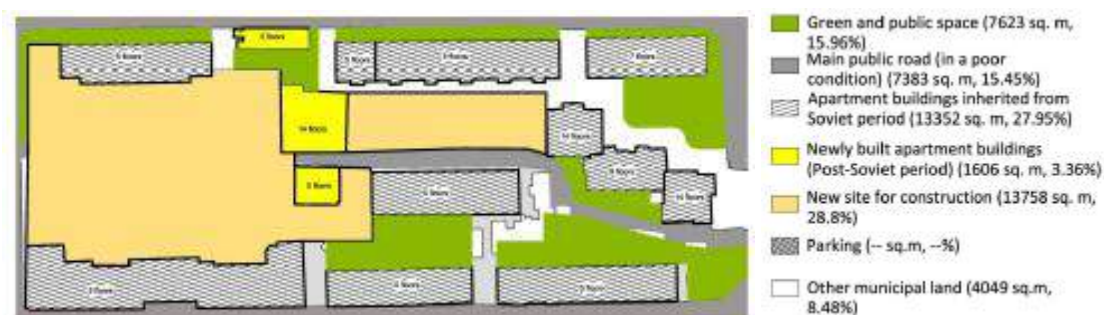


Figure 2. Illustration of proposed plan of the urban space according to property types (the scheme is developed by the authors based on data provided in www.e-cadastre.am)

According to this plan and to data analysis, the value of existing properties will increase even in the case where only public space improvements and parking zone are implemented in the studied urban space. Thus, based on the calculations made according to the above stated formula of value-added, the value of the properties in the case study object will increase as follows:

- EUR 812/sq m for the apartments in the buildings from Soviet period
- EUR 1150/sq m (apartments in the buildings from Post-Soviet period)

Therefore, considering the total new value of existing properties (EUR 104,419,459) and by subtracting the discounted (8%) costs of property to be purchased for implementing new development (EUR 13,898,318) and the costs for land development³ (10,733,449) as well as the developer's margin, the value added by proposed urban renewal project is estimated about EUR 2,608,092.

However, it is worth mentioning that achievement of proposed quality improvement requires responsive and collaborative approach of residents of this urban space. Furthermore, in order to maintain the quality achieved by the proposed urban plan the case study urban space has to be duly managed and maintained which supposes additional constant expenses by residents. Thus sharing costs through condominium

¹ Source: www.akcern.am, www.cadastre.am

² Source: official inquiry by the authors from "ERAZ" residential complex

³ Official data provided by "Avetisyan Construction" developer company, ww.avetisyanconstruction.am

management schemes could probably provide a quite effective solution for the raised issues thereby approaching the model of closed condominiums or gated communities.

4 CONCLUSION

While the above reflection on certain concepts was conducted within a wider framework, including various social, economic, environmental and cultural aspects, however it obviously proves the importance and requirement of consideration of the value added in each urban development project. Also, it may be definitely stated that, for successful improvement of urban space quality, the collaborative approach is required particularly with integration of residents and everyday users of the urban space.

The conducted survey proved that the concept of value added in each specific urban development project has an important role for all the project stakeholders, as well as for successful urban development at a larger scale. This statement facilitates much to use the value-added as a tool for implementation of urban regeneration projects through integration of and cooperation with various stakeholders.

Hence, further research proposed in the field of urban management with the focus on improvement of urban quality is aimed to enhance the role of value-added in urban regeneration projects mostly in residential areas. The allocation of value-added among property owners is proposed to be introduced through a land/property readjustment (“perequação” in Portugal) algorithm, which is assumed to be of use if it is adapted to the specificities of private property ownership, particularly through co-operation schemes once value enhancing features are evidenced to the property owners.

ANNEX 1

URBAN SPACE QUALITY INDICATORS

1. Monotype and non-degraded façade of the building, including:
 - Construction and exterior
 - Condition of balconies
 - Condition of windows
 - Condition of general entrance(s) of the building
2. Apartment buildings with proper roof and rainwater removal facilities
3. Public space provided for general socializing of residents, including playground for children, green space surrounding the building, corresponding to urban planning norms
4. Proper condition of internal road providing access to the main street or highway
5. Minimal distance from the nearest public transportation station
6. Proper lightening of the urban space
7. Proper and timely garbage removal
8. There is a territory adjacent to the building which corresponds to the urban planning norms for proper functioning of the building and its maintenance
9. Car parking established in proximity to residential buildings and corresponding to urban planning norms
10. Proper isolation of the half-built construction existing in the neighbourhood and the term of construction conservation

BIBLIOGRAPHIC REFERENCES

Alterman, R., (2010). The Maintenance of Residential Towers in Condominium Tenure: A Comparative Analysis of Two Extremes – Israel and Florida. Chapter 5 in Blandy, S., Dupuis, A., Dixon, J. (Eds.), (2010): Multi-owned Housing: Law, Power and Practice.

Ashgate, Farnham. Borghi, A. (2010). “A new “Basket” for Urban Quality Indicators”, Talks and Walks about Cities, Architecture and Art, <https://welldesignedandbuilt.com/2010/10/15/a-new-basket-for-urban-quality-indicators/>

Brenner, N., Schmid, C. (2015). Towards a new epistemology of the urban? City 2015, Vol. 19, (pp. 151-182)

- CABE, (2006). The value handbook. Getting the most from your buildings and spaces. Prepared on behalf of CABE by Sebastian Macmillan for Eclipse Research Consultants. ISBN 1 84633 012 2
- Carmona, M., Magalhaes, C. and Edwards, M., (2002). Stakeholder views on value and urban design. *Journal of Urban Design*, Vol. 7, No. 2, (145-169)
- Falkenbach, H., Nuuja, K., Viitanen, K. (Eds.), 2009. Apartment Ownership and Registration – Ten Case Studies in Europe. Helsinki University of Technology, Helsinki , (p. 52).
- Grigoryan, A., Paulsson, J., (2017). Legal aspects of management of commons within residential urban space: comparative review of Western European and Former Socialist experiences. *The Public Sector | Vol. 43 #1* (2017), (pp. 75-86). Available online under <http://oes.tuwien.ac.at/> from June 16, 2017.
- Harris, D.C., (2011). Condominium and the City: The Rise of Property in Vancouver, *Law and Social Inquiry*, Vol. 36, Issue 3, 694-726, 2011.
- Healey, P. (1997). Collaborative Planning. *Shaping Places in Fragmented Societies*. MACMILLAN PRESS LTD (p. 135)
- Healey, P., Purdue, M., Ennis, F. (1995). *Negotiating Development*. E&FN SPON, (p.21)
- HfH Armenia (2010). “Armenia Housing Study”, Habitat for Humanity Armenia Insch,
- A., Florek, M. (2008). “A great place to live, work and play: conceptualising place satisfaction in the case of a city’s residents”. *Journal of Place Management and Development*, Vol. 1, No. 2 (pp. 141-142, 146)
- Lilleholt, K., Modeen, P., Rečiūnas, G., Stasevičius G., Victorin A., (2002): Apartment Ownership and Mortgage Finance in Lithuania. *TemaNord 2002:579*. Nordic Council of Ministers, Copenhagen, (p.29).
- Lippert, R.K., Steckle, R., (2016): Conquering condos from within: Condo-isation as urban governance and knowledge. *Urban Studies* 2016, Vol. 53(1) (pp.132–148).
- Merwe, V. D. C. G., (1994). Apartment ownership. Chapter 5 in: Yiannopoulos, A. N. (Ed.), *International encyclopedia of comparative law*. Vol. 6, Property and trust. Mohr, Tübingen.
- Nordisk ministerråd (Nordic Council of Ministers), (1997): *Nordisk bustadrett* (in Scandinavian languages). *TemaNord 1997:594*. Nordisk Ministerråd Copenhagen, (p.22)
- Ostrom, E., (1990): *Governing the Commons*. University Press, Cambridge.
- Paulsson, J., (2007). 3D Property Rights – An Analysis of Key Factors Based on International Experience. (Doctorate thesis) Report 4:99 from the Section of Real Estate Planning and Land Law. Royal Institute of Technology, Stockholm, (pp.36-37).
- Paulsson, J., (2013): Reasons for Introducing 3D Property Rights in a Legal System – Illustrated by the Swedish Case. *Land Use Policy* 33 (2013), (pp.195-203).
- Nordisk ministerråd (Nordic Council of Ministers), (1997): *Nordisk bustadrett* (in Scandinavian languages). *TemaNord 1997:594*. Nordisk Ministerråd Copenhagen.
- Rabenhorst, C. S., (2001): Should the Laws of Slovenia Continue to Use the Term “Functional Land”? Subproject on Apartment Registration Development SMA_3.1D_IND, Slovenia Real Estate Registration Modernization Project. August 2001. Surveying and Mapping Authority of the Republic of Slovenia.
- Ratcliffe, J., Stubbs, M., Shepherd, M. (2001), *Urban Planning and Real Estate Development*, ISBN 0-415-27262-9, (pp. 304-305).
- Republic of Armenia Government Decree No 1855-N dated 30.11.2006 on “The procedure of uncompensated transfer of the land required for proper management and maintenance of the apartment buildings being built on the land of municipal or state ownership to the owners of apartments and non-residential premises of those buildings”.
- Saräu A.C., “Why Residents Choose a Place? Determining Factors that are taken into Account by a Resident when Choosing a Place”, *International Journal of Economic Practices and Theories*, Vol. 5, No. 4, www.ijept.org
- Song Y., Knaap G.-Y., 2007. Quantitative Classification of Neighbourhoods: The Neighbourhoods of New Single-family Homes in the Portland Metropolitan Area. *Journal of Urban Design*, Vol. 12. No. 1, 1–24
- Tracht, M. E., (2000): Co-ownership and Condominium. In: B. Bouckaert and G. De Geest (Eds.), *Encyclopedia of Law and Economics*, Volume II, Civil Law and Economics (62-89). Edward Elgar, Cheltenham, (pp. 85-86).
- WCED, (1987). *Our Common Future*, Report of the World Commission on Environment and Development, Oxford University Press, UK (p.16).