



## The significance of urban open spaces and green areas in urban property developments

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**Abstract:** Urban open spaces have increasing importance in city developments due to the urban expansion characteristic of the last decade.

Based on contemporary processes, cities and their neighborhoods can, by means of open space developments, enhance their appeal to tourists and residents alike. In this way their values can be increased significantly.

The main aims of our research are to recognize those areas that can be typical examples to examine the effect of urban open spaces on property values, analyze them to determine the rate by which value increases in those areas.

**Keywords:** green area, investor, open space, renewal, urban park, property value

### 1. Introduction

One of the life-bloods of settled areas is the persistent movement, migration, replacement and demographic fluctuation of the residents. The deurbanization [1] processes have played the main function in the development of cities since 1970. In the course of it the well-to-do residents started to move from the densely built-up and congested areas to the airier, less built-up areas offering pleasant living conditions, cleaner and healthier environment – namely, the garden-cities or the settlements of the agglomeration. Therefore, the abandoned building stock of the

cities and the cheaper flats were taken over by the less affluent residents. At the same time in the last decades a reversal of this – that is, a reurbanization process – can be felt. The city development programs are drawing the residents back in to the cities – and this is succeeding in general for many reasons, including better financial and cultural aspects and reduction of commuter traffic. Even, so the deurbanization process still makes its impact felt thanks to the poor, misguided regulation of the city development and to the impacts of the recent economic processes.

The present tendency has led to our forming the hypothesis that open space developments can stimulate the appreciation of the surrounding real estate.

## **2. Determining the aim**

Open spaces have significant importance in the life of the settlements. The areas with high green-coverage rate have ecological and environmental importance. These green spaces can improve the urban climate, abate the urban heat-island effect by their ecological-balancer function and reduce environmental damages. Through their social importance, the open spaces can help the residents in adjusting to the healthy lifestyle. By their aesthetic importance, they determine the characteristic of the settlements, ameliorating the built-up character of the cities.

In recent years, increasing attention has been paid to research regarding the evaluation of open spaces (including green areas and green spaces) and their components as well as their effect on the environment. In Hungary, no such analytical research or evaluation relating to the effects of open spaces on property values has been made so far – and this lack has been to the detriment of the development in a big city like Budapest. Certain areas of the capital that emerged in the face of this lack are poorly provided with green areas. However, the open spaces have increasingly greater roles in the sustainable city development processes because of the expansion of the city and also of the growing of the residents' number. The research method to demonstrate this hasn't emerged so far.

Based on the contemporary processes and trends, cities and their neighborhoods can, by means of open space developments, enhance their appeal to tourists and residents alike. In this way their values can be increased significantly.

Unfortunately, the actual situation shows that this opportunity to enhance parts of the city and the feedback of the adjoining areas' increased values to city development is not known or acknowledged by local leaders and planners. The research and the analysis of these problems and the share of results regarding the issue with the target audience have become opportune.

The aim of our research is to reveal all of the aspects that have to be collectively considered in the course of the planning of properties and open spaces as well as to

show those connections that can effect mutual collaboration between the two aforementioned activities to influence the city's image positively. Therefore, our purpose in exploring these questions is to get acquainted with the notions, observations and demands of the performers in the city developments and by means of these to create an Evaluation and Proposal System that can take into account the interests of designers, governments, investors and residents simultaneously and, through analyzing them, can propose regulations and optimal recommendations in relation to the developments.

### **3. Case studies**

The historical evolution of open spaces started in ancient times. Many works of research and historical descriptions give evidence of the public open spaces (e.g. Greek holy gardens and agoras, the forum in Rome) used consciously by the ancient cultures – such the Egyptian, the Mesopotamian, then the Greek and Roman – in their settlements. The significance of open spaces, as well as their importance in the settlements' evolution has been changing continually during the development of civilization. The assessment of their importance depended on the social rules of the era and also on the needs of the residents.

In the course of the modern endeavors of urban architecture, enhancing specific areas of cities through open space developments became known through the Urban Regeneration Program of Barcelona in the early 1980s. The leaders of the Spanish city (location of the Olympic Games in 1992) initiated the complex renewal of the city in the early 1980s to put an end to the suburban processes and reduce the uncontrolled sprawl [4, 5]. The urban renewal processes started with the creation and regeneration of streets, parks and greater green areas (about 1980-1986). The second stage (about 1986-1992) is featured by – on the one hand because of the Olympic Games – greater rehabilitation projects. The coast, the residential and recreational areas of the city were renewed and rehabilitated at this time. The infrastructural and strategic areas were rebuilt and renewed during the third stage (about 1992-2004) of the Urban Regeneration Program. Lots of huge public spaces were born by the new functions of these areas. The Urban Regeneration Model of Barcelona is a perfect example for all big cities regarding to both open space developments and complex urban renewals unto this day. It demonstrates the opportunities inherent to the collaboration between the city leaders and developers/investors by its extraordinary success.

Beside the local governments (or, where appropriate, the state), the private sector has also important role in open space developments. The role of the private investors has been growing significantly in recent decades because of the rapid

development of the economy and the spread of the profit-oriented lifestyle. Therefore the open space developments, which were exclusively initiated by the city's government, level at public areas. These open spaces – created in the settlements – can be rated in different categories (*Figure 1*) based on the self-dependent and mutual initiations of these organizations.

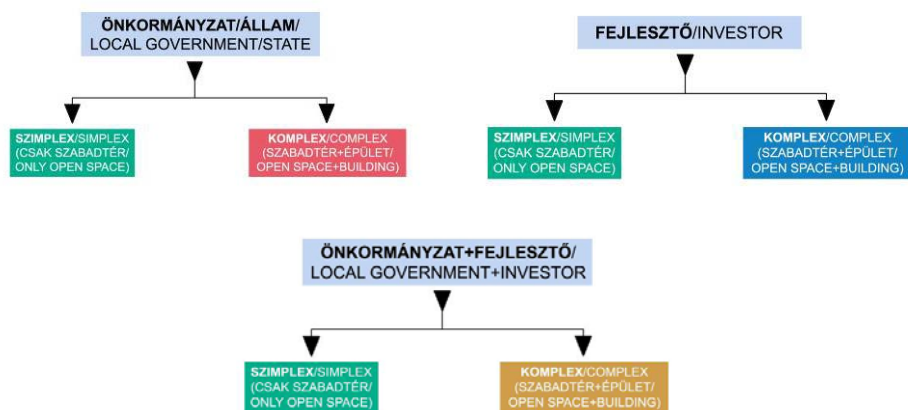


Figure 1

The first category includes the developments that were initiated by the local government (or where appropriate, the state) and created from public funds. There are two different groups in this category regarding the complexity of urban developments.

The *Simplex* group consists exclusively of the open space developments. The *Kerekerdő park*, which was created in the early 2000s by Budapest's IX. District Government on the site of a demolished residential block, falls into this category. The money for renewing the run-down rental flats was not available for the local government, therefore, they decided to create a green space which can improve the environment and potentially attract real estate investors to the area. The decision was based on an Act [3], which was framed in 1993 and permitted the demolition of such run-down rental flats. Due to the new residential property investments nearby, the park's environment is improving continually. The green area covers about 9000 m<sup>2</sup>, and includes playgrounds and leisure areas. The debris which was derived from the demolition of flats was used to fill the cellars in, and to create the hills of the green area.

In terms of our research, the park is of great significance because it is one of the few examples we have of urban open spaces that were created exclusively by the local government to improve the environment.



Kerekerdő park



Millenáris

The *Complex* group includes investments, wherein the open space and property (mostly buildings in this case) developments appeared collectively to enhance each other. The *Millenáris* in Budapest is a perfect example. This state-funded brownfield investment was created on the place of Ganz factory, which used to manufacture electrical systems. The area is a huge plot, which consists of several smaller plots and public roads. The green areas connecting directly to the buildings are public areas, but they maintained by buildings' tenants. Therefore the whole area can be used as a huge park framed by giant hall-buildings. Huge number of the old buildings and edifices are conserved and totally renewed. These are for rent, so there are a lot of programs in the park all year. The area is about 33000 m<sup>2</sup>, including a playground, a central pool, an open stage and huge lawns.

The *Millenáris* is an important sample-area in our research, because before the renewing process the environment was badly polluted by noise and powder, but today this part of the city has a green space with good feasibility and high recreational rate. The effect of this change can be demonstrated in the real estate values nearby.

The second category includes those investments were initiated exclusively by a private investor, in the hope of getting a return on the investment. These developments could be rated – like the categories aforementioned – in two groups.

The first, *Simplex* group includes the developments exclusively initiated by a private investor to create new open space(s). These areas are just semi-public spaces, because they can be rented for a predetermined fee. The private playing-fields and their immediate environment could be rated here. These areas have significant urban ecological (depending on their green coverage) and high recreational (depending on their functionality) effects.

The *Complex* group includes the developments wherein the building-investments (residential or office) have the same role as the open space developments. The open spaces created in this way can be public, semi-public or

private areas. The *Római-kert* (Roman garden) in the XIII. district of Budapest is an expressive example of a semi-public open space. This area is an interior garden in a residential block, which is bounded by buildings on two side of it. The area is about 4000 m<sup>2</sup> in which a leisure place and a playground were placed.

There wasn't any landscaping concept at the start of the building operation, therefore the flats could be sold more cheaply and slowly than was expected. This is the special characteristic of this open space. The investor – seeing the poor sales data – decided to have a garden plan made to the inner court, expecting from which a significant improvement with respect to the sale data of the flats. After the garden was created, sales picked up and the square meter price of the flats grew significantly as well.



*Római-kert (Roman garden) No. 1*



*Római kert (Roman garden) No. 2*

The third category contains the developments created by the cooperation between the investors and local governments and based on mutual compromise. These developments – like the two categories aforementioned – could be rated in two groups.

The *Simplex* group includes the investments in which there are/were only open space developments, but they are/were attained through the common agreement between these two organizations. Such cases typically occur when the leaders of the settlement allow the investor to accomplish his plans if he improves the areas (in most cases public spaces, streets, squares, parks) on specified level which are allotted by the local government before. The *Kopaszi gát* (Lágymányosi bay) created in the XI. district of Budapest is a project like this one. This area was improved through a cooperation between the local government and the owners of the plots nearby. The bay is located near a huge and nowadays only semi-used industrial area. The aim of the open space development, which was enhanced by comprehensive landscape architecture concept, was to allure investors onto the empty, previously industrial areas near the bay.





*Kopaszi gát (Lágymányosi bay)*



*Corvin Sétány (Corvin Pedestrian Street)*

The *Complex* group includes those developments in which the open space and building developments are/were present equally. The open space developments could be public space (streets, squares, parks), semi-public space, or private space improvements. In the first case the benefits of the created public space influences not only the city (as a complex, living system), but the residents which are vitalizing this system as well. A semi-public area may have the same ecological effect too, but its functionality (because it can be used by a determined community) is substantially below that of the public one.

The *Corvin Sétány (Corvin Promenade)* is a good example for such a macroscale urban renewal endeavor intended to contain open space and building developments simultaneously. The VIII. District's Local Government gave its authorization in 2006 to start the construction, but today the area is still being built. The office buildings and the shopping center were placed at the first third of the promenade. The residential buildings and the corresponding open spaces were placed in the middle of the street. The buildings of the Corvin Think-Tanks are going to be placed at the third part (at the end) of the pedestrian. These buildings are going to be rented by universities and by any companies specializing in research work. This project has also prominent significance at the national level according to its complexity and cost, not to mention the issues deriving from the collaboration between the architects, landscape architects and other professional designers.

#### **4. The structure of the Evaluation and Proposal System**

By using the aforementioned proposal system generated by the aim of the research, the process of urban development could serve the interests of the community (residents and professional constitutions) as well as serve the principles

of sustainable development and contribute to the creation of more pleasant settlements.

The proposal system connected to property and open space developments could consist of the following three sections:

1. Local Government Module
2. Developer/Investor Module
3. Public Space Developmental Contribution Module

After certain data is given to the *Local Government Module* (Figure 2) the regulation data used by the local government can contribute in the long term to sustaining the process of improvement. This system can help the city developers and designers to create the regulation plans and building regulations of the settlements. The input data provides information about the area that is to be regulated, about the attributes of the open spaces adjacent to that area (green space rate) and about the built-up and land-use data of the areas nearby. Optimal offers can be drawn by this model in reference to the data regarding the level to which the built-up area is to be regulated as well as to the limitations, interdictions and liabilities of that area.

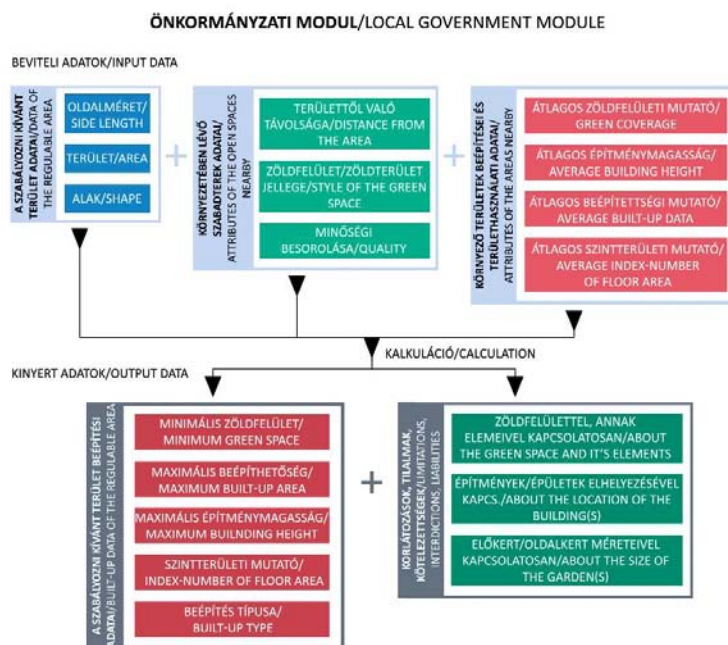


Figure 2



After providing the necessary data for the *Developer/Investor Module* (Figure 3) it will emerge what design aspects have to be used by the developer/investor in reference to the given area in order to sell the flats/offices built on the area (in this case as related to the effect on value exerted by the open spaces). It is important to mention that the calculation is predicated on the local zoning regulations in this case. The input data give information about the area that is to be developed, about the actual regulation data of this area, about the attributes of the open spaces next to this area (green space rate), about the construction and land-use data of the areas (part of the city) nearby, about the maximum cost expended to property development and about the attributes of the built properties (flats, offices).

Optimal offers are drawn by this model, in reference to the built-up data of the developable area to the referenced type of the created green space and to the location and exposure of the new properties (flats, offices).

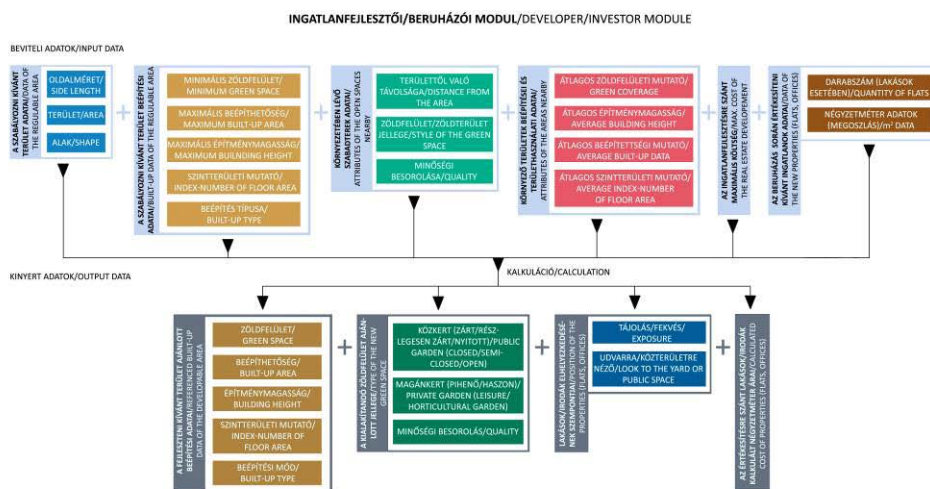


Figure 3

The *Public Space Developmental Contribution Module* (Figure 4) is based upon a compromise between the investor and the local government. If the local government makes a concession to the investor's demands in reference to the regulation data of the area that the investor wants to develop, then in exchange for that concession the local government can oblige the investor to develop and renew specific areas designated by the government. The rates of these allowances have to be determined and correlated by the data obtained from the local government

module. This module determines the rate of the development in categories. It connects the minimal cost per square meter of the development to these categories. This kind of open space renewal precept could be used by the local government to enhance the environment, with the goal of a higher resulting gain. Similar cases have also occurred in recent practice but their aims are not always to valorize the environment.

The public space developments can be classified in the following two categories:

1. *street (stage) reconstructions, renewals*
2. *square (large and public urban open spaces), or green area developments*

If the effect of the environment on value could be measured, a categorizing system has to be created in reference to the public spaces including the rates of the renewal of these spaces. The elements of these categories have to be different in the case of streets and urban spaces with determined functions.

The following two data have to be connected to the categories:

1. *The minimal cost per square meter of the development has to be determined in the case of all categories.* The scope of this cost is influenced by the rate and the quality of the development. The determination of this has to be made in reference to the comparisons with the designers and contractors and to the total labor wages and material costs.
2. *The percentage rate in proportion to the overall public space renewal has to be given in case of all categories.* The size of this rate is influenced by the relation between the area and the part of it that is slated for renewal, by the quality of the renewal and by the type, number and quality of the decorative elements.

The input data give information about the optimal regulation data calculated by the local government module, about the “allowance” data determined in the course of the agreement and about the data of the areas marked by the local government for public space development.

After the calculation (built on the percent rate of allowances), the system classifies the environmental development regarding the given area into a category, along with the type and the rate of the reconstruction.

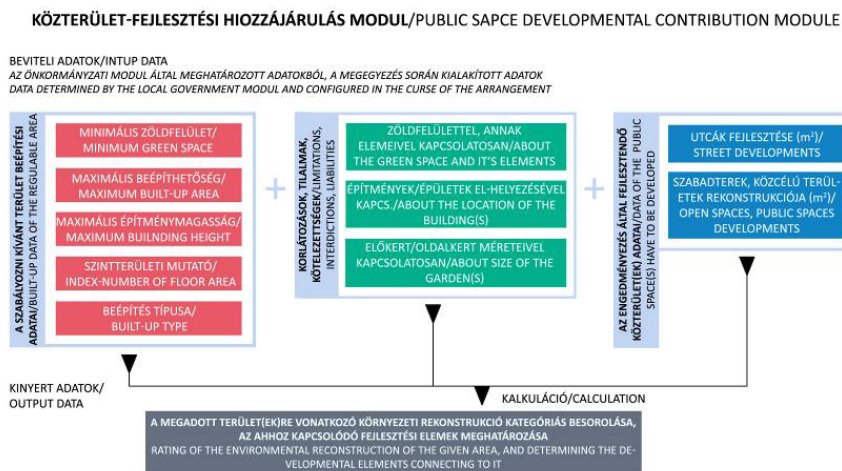


Figure 4

## 5. Summary

We paid special attention to acquainting ourselves with and analyzing the Urban Open Space Development Processes and the mutual work of professional organizations taking part in these projects. It is particularly important to map the effect of open spaces onto their environment (onto the settlement and to the residents equally), and to fix their characteristics in such an evaluative system by which their condition, quality and usage of these areas etc. can be estimated.

The creation of the proposal system in reference to the property and open space developments collectively can be started by determining the method for measuring the effect of open spaces on influencing property values and using the data yielded by these evaluations. This system is based on the mutual interrelationship (Figure 5) between the professional organizations, as well as on helping carry out the tasks connected to these relationships and on serving common interests.

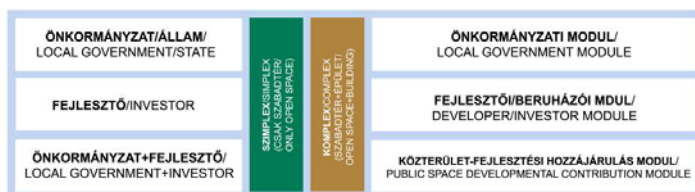


Figure 5

To integrate the issues of this and other research into urban development practice could be conducive to abating negative processes deriving from city developments and to realize the goals of sustainable development – thus creating more pleasant and more environmentally-friendly cities.

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