

Greenly’s Tree Of Green Ideas – An Informal Environmental Education Project In The Street

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Abstract

Greenly Magazine supported and has been involved in more than 30 major national and international environmental projects. Between June 14th and 16th 2013, Greenly Magazine took part in Street Delivery with a project that aimed to answer the theme of that year’s event: “As habitants of the city and as citizens, we demand quality housing”! The so called ”Tree of Green Ideas” project, brought forward by the Greenly team, offered an opportunity for those attending Street Delivery to answer the question: What does quality housing mean? The goal was to highlight the perception bucharestians have with regards to life and housing quality in their own city, through an informal environmental education project. The people of Bucharest were invited to attach their ideas, represented as leaf-shaped notes, in the Tree of Green Ideas (a mandarin tree bought for this specific purpose). These idea-leaves fall into three main categories: praises (laudative opinions), proposals or recommendations and complaints (negative opinions) in relation to the quality of housing and of life in general in Bucharest. The main negative aspects that have an adverse impact on the quality of housing and life in Bucharest are the various types of pollution (physical, chemical, aesthetic), the presence of waste in the streets, the decreasing amount of green spaces and the violation of town planning rules. For all these issues people came up with proposals that are made available through the Greenly Tree of Green Ideas.

Keywords: Greenly Magazine, environmental education, Street Delivery, urban housing quality

Introduction

Greenly Magazine (<http://greenly.ro/>), a volunteer-based project, emerged as a natural necessity in the Romanian academic milieu, within the Geography Department of the University of Bucharest, delivering free and immediate access to environment-related scientific content, with new articles posted on a daily basis (Mănoiu, 2013, 2014).

As there were no Romanian online environmental journals, a team of thirteen geographers from the University of Bucharest, BA, MA and PhD students, coordinated by Prof. Dr. Valentina-Mariana Mănoiu, decided to create such a platform in December 2011 (Mănoiu, 2013, 2014).

Greenly's articles provide scientific support for undergraduate, postgraduate and doctoral students interested in environmental issues, as well as for professionals and ecology enthusiasts. Greenly is a highly useful tool both for students and faculty members of the Geography Department of the University of Bucharest, and also for other institutions, as it enables access to essential scientific information necessary for a wide range of courses and seminars. Furthermore, Greenly is used by primary and secondary education students and teachers who want to improve their knowledge of the environment (Mănoiu, 2013, 2014). The articles featured so far can be grouped into the following major thematic categories (Mănoiu, 2014):

- A. Physical and socio-economic geography (in conjunction with various environmental issues);
- B. Ecology and environmental protection;
- C. Science (scientific articles about the environment);
- D. Practical tips (tutorials) on how to protect the environment, reduce the consumption of our non-renewable resources, waste-recycling etc;
- E. Nature protection activities;
- F. Essays on the environment, nature, education (strong positive emotional impact);
- G. Environmental events and legislation;
- H. Engaging sections (“Wall of Fame”; The right way! The wrong way! A campaign for a clean European environment!”; “Guests”).

Since its creation, Greenly Magazine has supported and was involved in *more than 30 major national and international environmental projects*.

Between June 14 and 16th 2013, Greenly Magazine participated in Street Delivery with a project tailored to the subject of that year's event: “*As inhabitants of the city and as citizens, we demand quality housing!*”

The project brought forward by the Greenly team, called *The Tree of Green Ideas*, and initiated by Magda Baidan (Baidan, 2013), a member of our team, offered a unique opportunity for those attending Street Delivery to answer the question „*What does quality housing mean?*”. The desired result was to highlight the perception of bucharestians towards the issues of quality

of life and housing quality in their city by means of an informal environmental education project. Before getting started, Greenly illustrated, through two articles written by two team members (Micu, 2013; Moroşanu, 2013) and posted on the Greenly site, to what extent the urban environment influences housing quality – and also life quality – for the people of Bucharest living in the downtown area.

Housing quality is a multidimensional concept that has evolved by examining a number of physical and social characteristics of the housing environment and its surroundings (Ranci, 2011; Uehara, 1994). These characteristics include a series of indicators pertaining to housing quality with regards to intrinsic (type and aspect of buildings, number of storeys, the areas around the houses) and extrinsic conditions (the surrounding environment, access to public transport and public utilities, parks, movie theaters, schools, number and quality of oxygenated areas etc). Thus, we can consider that quality of housing is a key element defining an individual's quality of life (Ranci, 2011; Uehara, 1994).

The conclusions drawn from our first articles, which were the result of an ample research of the first central urban fabric (Moroşanu, 2013), show us that the most serious environmental disfunctionalities come from old, dilapidated buildings, which are not just a source of dust pollution and an aesthetic eyesore but also a hazard for pedestrians walking nearby, beneath their roofs or balconies. At the same time, green areas are insufficient and poorly maintained. Additionally, we have found numerous sources of noise. Discussions with local habitants have revealed interesting aspects regarding their perceptions of the environment they live in. From their point of view, these areas are neither dangerous nor crowded, as they see intense traffic as a normal element of central arteries that are vital for a capital city, but they are unhappy with the lack of green spaces and the slow process of restoring old buildings.

The second central area that we analysed in terms of housing quality, which formed our second article (Micu, 2013), although smaller, faces many problems, ranging from inappropriate waste disposal and storage to very narrow streets, insufficient parking space compared to the number of cars in an area that was not designed to handle such intense traffic, a lack of green spaces, of small size and poorly maintained, numerous sources of noise and vibrations etc. All these elements come together and affect the quality of life for people living there.

Since quality housing involves, first and foremost, a personal perception of one's city, district or neighbourhood, the Greenly team wished to uncover what *quality housing* means for the people of Bucharest and what kind of role the environment plays. Consequently, we decided to implement the *Tree of Green Ideas* project.

Over the course of three days, bucharestians were invited to post their leaf-shaped ideas (things they like, aspects that make them unhappy, suggestions or proposals on quality housing) in *the Tree of Green Ideas* (a mandarin tree bought specifically for this purpose, Fig.1). These ideas were then assumed and presented to a wider audience through our present study, in order to highlight the perception of bucharestians on their own city. In order to raise awareness about our event, we prepared posters and promotional fliers with useful information.

Figure 1. Greenly’s Tree of Green Ideas (Source: Radu I., 2013)



The Tree of Green Ideas was envisaged as a useful exercise in informal, spontaneous, daily and existential education, as part of the Street Delivery event. Informal education is defined by attractiveness and diversity and a lack of restrictions and standards specific to formal education. Therefore, knowledge becomes autonomous *per se*.

But what is Street Delivery? Street Delivery is a non-profit social responsibility event that aims to highlight the role public spaces play in education and the importance of culture and historical memory in the sustainable development of a city (Street Delivery, 2015). Street Delivery strengthens the role of public spaces in the life of those living in the city, by converting the urban landscape into a living space. In 2015, Street Delivery reached its tenth edition in Bucharest. Over the course of three days, it created a positive projection of the educational, cultural or environmental potential of Bucharest and other cities where it took place. During the event, Street Delivery closed all car traffic on Arthur Verona Street (the place where it was organized) and opened up the road for everyone interested in

architecture, town planning, patrimony and environmental or housing quality.

Moreover, Street Delivery was conceived as a *Responsible Event*, defined by the following criteria (Societal, 2015):

- Less polluting solutions for access to the site of the event;
- Locally sourced or ecologically certified products in the culinary menu;
- The use of devices meant to improve the efficiency of energy consumption or to reduce water use;
- Promotional material printed on recycled or eco-labeled supports;
- Equipment for selective waste collection;
- Initiatives for promoting human rights and universal values;
- Decent working conditions for those involved in organizing the event;
- Synergies and collaboration between organizers and the local community.

The checklist that organizers must respect in order to attain the “Responsible event” recognition is based on the list of Social Responsibility criteria. This checklist is a management tool that allows the improvement of performance in four areas: social aspects, the environment, economy and governance (Societal, 2015). The criteria have been drafted on the basis of the ISO 26000 social responsibility standard and the Global Reporting Initiative standard for sustainable development recognition. These references were complemented by specific standards for responsible events management, such as ISO 20121 and BS 8901 (Societal, 2015).

Background

Before analyzing the content of the “green” ideas that bucharestians posted in our Greenly Tree during Street Delivery, we shall make a brief presentation of several key aspects concerning housing quality in Bucharest.

Bucharest is Romania’s capital and, at the same time, its most populous city and the most significant political, economic, demographic, financial, banking, commercial, cultural, scientific and educational center of the country. From an administrative standpoint, it is divided into six sectors, each having its own mayor and local council. According to the National Institute of Statistics, on January 1st 2015 its population stood at 2.103.346 habitants (Institutul Național de Statistica, 2015). The Municipality of Bucharest covers an area of 228 square kilometers (about 0.8 % of Romania’s total area), out of which 70 % is covered by buildings (Bucharest City Hall, 2015).

The Green Land Book, published in June 2011 by the Mayor’s

Office, states that Bucharest offers 23,1 m² of green space for each of its inhabitants, including here areas such as parks, cemeteries, streetside trees and urban forests (Bucharest City Hall, 2011).

In accordance with provisions of the World Health Organisation, the minimum amount of green space per habitant is 50 square meters (Ecopolis, 2012). At European Union level, where cities host around 75% of the population, standards of green space per capita set a minimum level of 26 square meters for each inhabitant (Ecopolis, 2012). In 2012, the index of green space per inhabitant (expressed in square meters per capita) for several European capitals and four cities declared “European green capitals” was as follows (Ecopolis, 2012):

- Vienna – 120 sq m per capita
- Helsinki – 100 sq m per capita
- Stockholm – Green Capital, 86 sq m per capita
- Nantes – Green Capital, 57 sq m per capita
- Sofia – 49 sq m per capita
- Rome – 45 sq m per capita
- Hamburg – Green Capital, 39 sq m per capita
- Berlin – 38 sq m per capita
- Copenhagen – Green Capital, 28 sq m per capita
- London – 27 sq m per capita
- *Bucharest – 23 sq m per capita*

From the above mentioned data, it is obvious that the amount of green spaces in Bucharest is very low, well below European norms and even lower compared to WHO rules.

In Bucharest, as it is the case everywhere in Romania, green spaces come under increasing threats from the negative impact of economic and social development. The lack of a satisfactory environmental management and the absence of strategic planning can lead to health problems and decreased standards of living.

Green spaces in highly urbanized areas exert a strong influence over the quality of life experienced by the inhabitants. By meeting European standards in terms of green areas, it is possible to substantially improve both the degree of comfort and the level of health of the population. In terms of environmental impact, green spaces are one of the most important elements that can improve air, soil and water quality.

Parking spaces create an ever increasing pressure on urban green areas and have become a major concern for Bucharest. In the context of an underdeveloped parking infrastructure and an increasing number of cars, the situation of green areas has deteriorated in many residential areas. More and

more people solve their parking needs using any available space that is close to their residence.

On the other hand, only 0.7% of bucharestians use bikes for travelling to their workplace or school (Ecopolis, 2011, 2012), and are hampered in their efforts by poorly built bike lanes. In Bucharest, cyclists have to share their lanes with pedestrians. This solution has caused difficulties from the beginning, due to narrow sidewalks and the fact that most cyclists do not respect the limits of their assigned lanes (in many cases, they have no other option but to leave the lanes). Furthermore, Bucharest's cyclists are forced to avoid not just pedestrians but also illegally parked cars, trees, lighting posts and parking obstacles or even buildings or kiosks, a problem that has been raised by a number of NGOs. Therefore, an expansion of bike lanes does not always mean that it becomes easier to use a bike. For this reason, in recent years, Bucharest switched to the model of building bike lanes along the roads.

Another grave aspect is the fact that Bucharest's air is one of the most heavily polluted in Europe and the most heavily polluted in Romania (The European Pollutant Release and Transfer Register, 2011; Theloke et al., 2011). This dramatic reality was illustrated in 2011 by dozens of online maps released by the European Union and the European Environmental Agency, detailing the pollution levels found in most European cities and villages (The European Pollutant Release and Transfer Register, 2011; Theloke et al., 2011), as well as pollution sources and toxic substances affecting the health of the locals living in each area.

In 2012, according to a study conducted by the Romanian Ecopolis Centre for Sustainable Policies, Bucharest ranked among the top two most heavily polluted European capitals (Ecopolis, 2011) in terms of particulate matter with diameters of up to 10 micrometers (PM10). Therefore, in Bucharest, the average annual records show 92 days in which the permissible level is exceeded, although European standards call for a maximum of 35 days (Ecopolis, 2011). The main source of air pollution in Bucharest comes from automobile traffic (Ecopolis, 2011). In this regard, Bucharest is surpassed only by Sofia, with an annual average of 176 days.

Furthermore, traffic is the main source of noise pollution in the capital.

Bucharest's public transport network is the largest in Romania. It is made up of a subway system, measuring 70 km in length (Metrorex, 2015), and the surface transport network, comprising 109 bus lines, 15 trolleybus lines, 24 tramway lines and a light rail line (RATB, 2014). Additionally, there is a network of private minibuses and more than 10.000 licensed taxis operating with various companies. Everyday, more than one million vehicles travel in the city.

Results and Discussions:

As a result of participating in Street Delivery, the Greenly Green Tree of Ideas received 61 idea-leaves, 17 of which (27.87%) coming from children (identified as such by the way in which messages were written, calligraphy and spelling), and 44 (72.13%) belonging to adults (Fig.2, Fig.3). These idea-leaves fall into three categories: praises (laudative opinions), proposals or recommendations and complaints (critical opinions) concerning the quality of housing and living in Bucharest. In terms of their purpose, 35 ideas contained recommendations and proposals (57.38%), 8 included praises (13.11%) and 13 (21.31%) were critical. As for their content, 5 ideas (8.20%) were more complex, containing both praises and complaints or proposals for improving the quality of life in Bucharest.

We consider that the greatest advantage of such an informal education project is the truthfulness of the anonymous answers. The fact that only 21.31% of respondents offered us entirely critical opinions gives us hope that our city (which was named, in the interbellum period, the Little Paris for its beauty and resemblance to the French capital) is heading in the right direction.



Figure 2. Children are happy to share their green ideas (Source: Radu I., 2013)

Among the five complex ideas, four belong to children. The first one of this kind came from a child who wished Bucharest was cleaner,

appreciated the beauty of Herăstrău Park (the child spoke of how much he liked to play in this park, the largest in Bucharest, covering an area of around 110 hectares) and criticized the litter that fills the city (for example the significant amount of waste; in Bucharest, selective waste collecting is still only a pilot project).

The second complex idea brought to the Greenly Tree by a child criticized the pollution generated by cars and advised people to use bicycles and scooters more often. The third note coming from a kid praised the numerous museums and libraries found in the city, places where one can learn more, and proposed the construction of smaller buildings and more beautiful houses instead of skyscrapers (A/N: Bucharest does not have skyscrapers yet, but for a child, even buildings with 10 or 11 storeys can appear as skyscrapers) and the elimination of garbage (A/N: waste materials). The last complex idea belonging to a child criticized the lack of green spaces and suggested the creation of a program allowing bucharestians to make bicycle trips around the country. The fifth and final complex idea came from an adult, who thought that Bucharest is a beautiful city which needed more kindergardens and playgrounds instead of coffee shops and restaurants, which he judged to be far too many.

The eight laudative opinions were as follows:

- Romania is the most beautiful country in Europe! (in the opinion of a child)
- We shall make Bucharest more beautiful!
- I love you and cherish you with all my heart! (a message for the Greenly team)
- Bucharest is blossoming!
- I like Bucharest's diversity and its ability to easily overcome many obstacles.
- In Bucharest, people are warm, alive, colorful and restless
- Bucharest is one of Europe's most beautiful capitals
- Bucharest is a city with a rich history and beautiful people, and is all up to us to make things better!



Figure 3. Respondents hanging their idea-leaves in Greenly's Tree of Ideas (Source: Radu I., 2013)

The last ideas can be seen as an objective conclusion: Bucharest is endowed with a rich history and its inhabitants are the only ones capable of turning it into a beautiful and pleasant city, with a high level of housing and life quality!

The critical opinion notes, 13 in total, underscored the following faults:

- Garbage in the streets (mentioned twice);
- The city is undersized, streets are too narrow, parking space is insufficient, dust levels are above the legal threshold and Bucharest is affected by air, water and soil pollution, not to mention aesthetic pollution (6 notes mentioned various types of pollution: physical (ie. sound pollution), chemical, aesthetic etc.)
- A decrease in green spaces (in order to clear land for new buildings)/a very small number of trees
- Unfinished construction projects
- Town planning rules are not respected, buildings are designed in a chaotic manner and are often of poor quality, without any regard for the surrounding context, for history and for the needs of the inhabitants; there are many dilapidated buildings in the old city centre
- People cook barbecues in the parking lots and the smell enters houses nearby (message from a child)

- Too many dog excrements (although the Mayor's Office adopted a regulation in 2010 forcing pet owners to collect their animals' excrements from the street using a broom and a dust pan)

We can see that pollution in its various forms, the presence of garbage in the streets, a reduction in the amount of available green spaces and the violation of town planning rules are the main negative aspects that have an adverse impact on the quality of life in Bucharest, as illustrated by the Greenly Tree of Green Ideas.

The Greenly Tree also attracted numerous recommendations aimed at improving the quality of housing and life in Bucharest, as we shall see next:

1. More small-sized houses, fewer large apartment buildings
2. More trees, more green spaces, fewer shopping malls (recommendation from a child)
3. More green and less dust (suggestion from a child)
4. More love
5. Education and respect
6. Bicycle lanes
7. More bicycles, better sidewalks for pedestrians and for pets (idea coming from a child)
8. Less pollution, more green spaces (suggestion put in the Greenly Tree by a child)
9. More flowers and free sweets (from a child)
10. Bucharest should be clean, green, well lit and civilized (again, coming from a child)
11. Calea Victoriei (A/N: one of the main central arteries of Bucharest) should be turned into a pedestrian zone, the ZOO should be expanded to include Băneasa (A/N: a new and modern residential area in the northern part of the capital), and the Government's headquarter should become a planetarium (A/N: this final proposal should be seen as an irony, since the Government's palace is an imposing, multi-storey building covering 26.000 m²)
12. Green spaces instead of buildings!
13. Open air workshops (in parks)
14. Do not pollute! (the prayer of a child)
15. I want no more demolitions! Rebuild instead!
16. More platform games (of course, the suggestion of a child)
17. Fewer schools and more nature! More parks and more plants! (the recommendation of a child; A/N: obviously, the critique refers to the fact that children spend most of their time indoors during school time, instead of going outside, in the nature, visiting parks that are anyway too few for a city such as Bucharest. Education can successfully take place in nature, and we recommend the creation of educational programs for achieving this purpose)

18. I want a European Capital!
19. I want a European capital, civilized! Stop the demolitions and put an end to the garbage littering our streets!
20. More green spaces!
21. More small-sized houses, fewer large buildings!
22. Fewer parking areas and more parks! (A/N: parking lots are already insufficient due to the high number of cars. Thus, it is not uncommon for green areas to be used illegally by cars. Of course, we would recommend people to rely less on cars)
23. More plants and less concrete and cement!
24. No more plastic bags! (A/N: we support this idea, coming from a child who understands how damaging plastic really is)
25. Have one day when all car traffic is prohibited!
26. No tall buildings made of glass and steel in the city centre (A/N: in this case, the recommendation refers to the aesthetics of tall buildings, but it is worth mentioning that such structures can also pose a threat to people during earthquakes, and Bucharest is the European capital most at risk from such phenomena)
27. Green spaces along major roads, areas with traffic limitations in the city centre and pedestrian zones. Better maintained parks!
28. More nature!
29. More green spaces!
30. You destroy the environment – you hurt yourself! Let's love ourselves more and protect nature!
31. The construction of a cover above the Dâmbovița river (A/N: the river that crosses Bucharest) between the Unirii and Națiunile Unite squares (A/N: two major squares of the city) in order to create a parking spot for buses carrying tourists.
32. More parks, gardens, trees and flowers! The capital needs a green belt!
33. The headquarters of OMV-Petrom (A/N: the main oil producing company in Romania and the entire Southeastern Europe), located on Calea Victoriei 109, should be transformed into a Romanian art school (A/N: this building is currently claimed by the heirs of the Brâncoveanu and Cantacuzino families, who played a major role in the history of Romania, and it forms the object of a legal dispute)
34. More green spaces!
35. More green spaces, bike lanes, parks and investments in the Văcărești Delta (the wish of a child; A/N: For over 20 years, real estate developers and wildlife have fought over a piece of land covering 190 hectares in the city centre. If this area were to become an urban nature reserve, every bucharestian would gain one square meter of wilderness. This

land is the last remnant of an ancient archipelago of swamps, fields and lowlands located in a vast depression at the outskirts of the old city. Over 100 bird species call this place home. The land is claimed by various owners)

Almost one third (11 of 35) of the recommendations that found their way in the Greenly mandarin tree came from children. All of them show a concern for the environment and a desire for more green areas and less pollution. As such, 16 proposals targeted the need for expanding green spaces in Bucharest. Ten recommendations discuss the issue of housing and buildings, with an expressed preference for more houses (small-sized buildings) over large apartment buildings or tall glass and steel towers. There were also proposals to change the use of some buildings and reduce the number of demolitions, choosing instead to renovate older buildings, while at the same time creating new structures to expand the number of parkings spaces.

In six recommendations, key words such as dust, pollution, cleanliness, plastic bags and garbage were all included in ideas meant to reduce various forms of pollution affecting the capital. More bicycles and bike lanes, more pedestrian areas or limited traffic zones and even a day when all motorized traffic is prohibited are all core ideas that can be found among the recommendations.

Finally, we must say that, in the minds of Greenly friends, love, respect, education (including in nature), improving the degree of civilization for the people of Bucharest and the respect of European environmental and urbanistic objectives represent the key that would make Bucharest a city that satisfies the desires and aspirations of its inhabitants.

Conclusion

Overall, we can safely say that our project generated many constructive ideas, with the Greenly team and magazine acting as a green think-tank for the people of Bucharest who took part in Street Delivery. The involvement of children was particularly impressive in terms of their high level of environmental education. Such brainstorming projects make people aware of the importance of having a high quality urban environment, which, in turn, influences the quality of life and that of housing in the city. They generate not only ideas but also green actions. Bucharest is indeed a place with a rich history and wonderful people, and the establishment of an effective, fair, green and clean management could offer this city a durable beauty and a better quality of life. It is up to us to achieve these goals. And maybe, one day in the future, Bucharest will grow to become a smart city, a city that performs well in 6 key fields of urban development, built on the 'smart' combination of endowments and activities of self-decisive, independent and aware citizens (Smart Cities, 2015). For becoming such a

smart city, we need a smart economy, smart mobility, smart governance, smart environment, smart living and, last but not least, smart people. We think that it all begins with smart people, and Bucharest has many of them. Let's bring them together!

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