

GREEN ARCHITECTURE, FROM UTOPIA TO REALITY

ARHITECTURA VERDE, DE LA UTOPIE LA REALITATE

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Abstract. *From visionary Austrian artist Hundertwasser utopias of the 70s, through fashionable postmodernist projects, to nowadays already built award-winning projects from contemporary ecologic architecture competitions: this is a long road, full of obstacles along, for green architecture concept. The paper analyses the change induced in the designer's awareness by the rise of pollution and the new attitude of some creators, architects-urbanists-landscapers, towards the future life in the urban space. In the development of such projects, landscape architecture has played and plays an important role, both in outdoor and indoor structures, stimulating of a new urban culture – culture of the nature.*

Key words: green architecture, landscaping, urban space, new attitude.

Rezumat. *De la utopiile artistului vizionar austriac Hundertwasser din anii 70, prin moda postmodernistă, până la proiectele contemporane de arhitectură ecologică premiate la concursurile internaționale - iată un drum lung și plin de obstacole, parcurs de conceptul arhitecturii verzi. Lucrarea analizează schimbările produse în conștiința design-erilor de creșterea accelerată a poluării și noua atitudine a unor creatori, arhitecți-urbașiști-peisagiști, față de viitorul vieții în spațiul urban. În evoluția acestui tip de proiecte, peisagistica a jucat și joacă un rol foarte important, atât în spațiile exterioare, cât și în cele interioare, stimulând o nouă cultură urbană: cultura naturii.*

Cuvinte cheie: arhitectura verde, peisagistică, noua atitudine.

INTRODUCTION

We can observe in the history of urbanism and landscape design that two important trends stand out in the green architecture practice and in the sustainable urban applications (Dascălu Doina Mira, 2006).

1. One is the trend of ecological architecture, which means to reduce the overall impact of the built environment on the human and natural environments.

2. The other one is a new wave born from the hard challenge that nowadays many green architects face with: to change the aspect of the urban space, more and more suffocated by concrete, plastic and many pollutants, into a healthy one with a natural aspect.

MATERIAL AND METHOD

The paper analyses the nowadays attitude of the landscape creators towards the urban space and future life, connected to the very stringent mankind necessity to live into a healthy urban space with a natural aspect. Underlining the birth and inspiration from the Hundertwasser's ideas of the new trend in the green architectural

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and urban creations, we link this wave to an essential problem of the contemporary age: the changes induced in the human awareness by the rise of pollution and the birth of the new urban culture of the nature.

RESULTS AND DISCUSSIONS

1. The trend of ecological architecture

The trend of ecological architecture and urbanism bring together a large variety of practices and techniques, like: reduction of waste, pollution and environmental degradation, using local and green building materials, using green energy, using water and other resources efficiently, enhancing indoor and outdoor environmental quality .

Roots of green architecture can be found in some antique utopian and also practical ideas, followed by idealistic projects in medieval, renaissance, baroque, romantic, modernist and postmodernist times (fig. 1) (Dascălu Doina Mira, 2006).



Fig. 1 - Sod roofs on log buildings of Norsk Folkemuseum in Oslo
(wikipedia.org/wiki/Sod_roof)

From visionary Austrian artist Hundertwasser utopias of the 70s-80s new waves, through fashionable postmodernist projects, to nowadays already built award-winning projects from contemporary architecture and urban design competitions - this is a long road, full of obstacles along, for the green architecture concept.

In the development of such projects, landscape architecture has played and plays an important role, initially in outdoor and transition spaces, and now even the indoor structure.

Today green buildings are no longer any utopia or fashion. They constitute an urgently need, a solution imposed by accelerated pollution and the apocalyptic scenario of the future of mankind on earth.

Austrian artist Hundertwasser, one of the first promoters of twentieth century green architecture in the city, carried on the concept not only in the sense of architectural and urban green framework adapted 100% to the natural environment.

These proposals came very close to current urban needs. He created a new trend and a new sustainable univers for the future landscape architecture.

He used, for the first time, the urban land and ground as a resistance structure for buildings and urban circulation.



Fig. 2 - Hundertwasser – green architecture - Waldspirale
(<http://landscapeandurbanism.blogspot.com/2008/09/hundertwasser.html>)

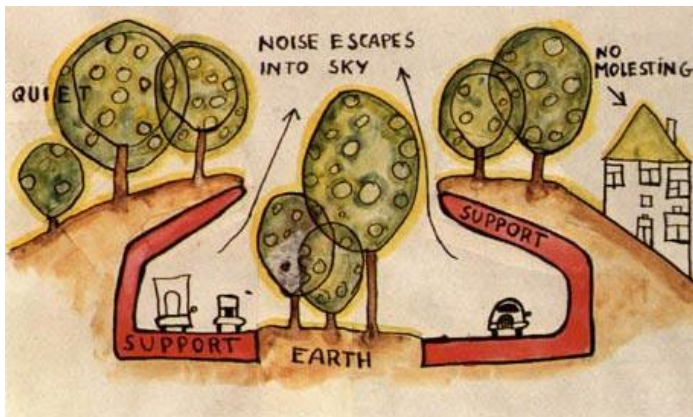


Fig. 3 - Hundertwasser underground green tunnel
(<http://landscapeandurbanism.blogspot.com/2008/09/hundertwasser.html>)

Early 70s, in addition to the promotion and practice of the concept of horizontal garden, Hundertwasser comes with an innovative idea that has revolutionized the architecture and the urbanism: green facades – meaning green verticals of the cities.

Also, he is one of the first creators to promote the ancient and millennial idea of buildings and urban districts embedded in the ground.

Although considered utopian, some of his ideas have been built in the 80s (fig. 2), others remained in draft form only (fig. 3), being a vast source of inspiration for many architects and urban planners, today nicknamed as „green”.

2. A new wave

If initially were considered a caprice, nowadays, new architectural and urban green forms seems to constitute a necessity.

The green shapes can restore, in ours polluted citties, the inhabitants self-respect and responsibility to take care and to create new organic/natural aspects (Shri Mataji Nirmala Devi, 1995).

The necessity of natural elements in the built urban space being very stringent, the digital design with smart graphical software (Stevens C. J., 2003) try to face this situation, creating various and futuristic organic shapes.

At first sight, only on the paper, these shapes seemed to be fictions, but finally many of them were built.

A spectacular green design was created by a Netherlands architectural firm as a concept design for a dense future city centre located 35 km south of the Korean capital Seoul - Gwanggyo City Centre (fig. 4).



Fig. 4 – Gwanggyo City Centre Koreaa-2008

(<http://www.contemporist.com/2008/12/04/mvrdv-wins-gwanggyo-city-centre-competition/>)



Fig. 5 – Gwanggyo City Centre Korea: image of pedestrian circulation
 (<http://www.contemporist.com/2008/12/04/mvrdv-wins-gwanggyo-city-centre-competition/>)

In this city, like in Hundertwasser utopian drafts, a series of green hills shaped buildings creates a high urban density and encouragement of further developments.

The buildings volumes are enriched with landscape arrangements, like water games and vegetation, at each level (fig. 5).

These new waves of architectural organic/natural shapes try to prevent the urban metamodernism from becoming dry and sterile.

The natural forms and materials involves the creators into a game of various possibilities, suggested by a beneficiary option or an architect vision.

Technical innovations and digital design with smart graphical software can generate not only new volumetric expressions, but also, a new creative awareness and architectural attitude.

Regarding this new green architectural and urban attitude, its content transmits also to the inhabitants subtle emotions and messages.

In the context of the change induced in inhabitants awareness by the rise of pollution, this new attitude of green architects – urbanists - landscapers towards the future life in the urban space have a deliberate goal: stimulation of a new urban culture-culture of the nature.

CONCLUSIONS

1. Today green buildings are no longer any utopia or fashion. They constitute an urgently need, a solution imposed by accelerated pollution and the apocalyptic scenario of the future of mankind on earth.

2. It is important to observe that the change induced in the designer's awareness by the rise of Earth's pollution created the new sustainable attitude of architects – urbanists - landscapers, towards the future life in the urban space.

3. In the development of such projects, landscape architecture has played and plays an important role, both in outdoor and indoor structures.

4. The harmonious blending of organic/natural shapes, in the urban green and complex volumes, will always create a really calming, comforting and healing refuge.

REFERENCES

1. **Dascălu Doina Mira, 2006** - *Peisagistica: o posibilă terapie pentru problemele mileniului al III-lea*. Ed. Societății Academice "Matei - Teiu Botez", Iași, p. 5-15, 92-105, 256-262.
2. **Shri Mataji Nirmala Devi, 1995** - *Meta Modern Era*. Computex Graphics, Bombay, India, p. 11.
3. **Stevens C. J., 2003** - *A Dictionary of Architecture and Landscape Architecture*, (Second edition). Oxford University Press. p. 80.
4. http://en.wikipedia.org/wiki/Sod_roof
5. <http://landscapeandurbanism.blogspot.com/2008/09/hundertwasser.html>
6. <http://www.contemporist.com/2008/12/04/mvrdv-wins-gwanggyo-city-centre-competition/>