

LANDSCAPE SUSTAINABLE SOLUTIONS FOR RESIDENTIAL PEDESTRIAN TRAFFIC REGENERATION

SOLUȚII PEISAGERE DURABILE DE REGENERARE A CIRCULAȚIILOR PIETONALE REZIDENȚIALE

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Abstract. *The pedestrian circulation is on top between urban spaces that are being accelerated degraded. In the modern city, public spaces, both ancient and modern, were gradually degraded, sometimes entirely subordinated to the needs of traffic, losing real contact with its inhabitants. A first measure outlined in the West since the 70s was the rehabilitation of pedestrian circulation in residential areas. Some residential roads trails, which become high traffic and polluted, were "returned" to pedestrian use. Experiences have been successful worldwide and many other countries began to experiment locally. The cost to create such residential pedestrian in Romania and locally can be quite high, but the magnetism created by zonal regeneration will bring double-quick maximum profit with far-reaching time.*

Key words: landscape regeneration, urban traffic, residential pedestrian streets.

Rezumat. *Pe primele locuri între spațiile urbane care sunt în curs de degradare accelerată se află pietonalele. În orasul modern, atât spațiile publice vechi, cât și cele moderne, au fost treptat degradate, fiind uneori în întregime subordonate nevoilor de trafic, pierzând contactul real cu locuitorii săi. O primă măsură care s-a conturat în occident încă din anii 70 a fost cea a reabilitării circulației pietonale în zonele rezidențiale. Anumite trasee carosabile rezidențiale, care deveniseră intens circulate auto și poluate, au fost «restituite» pietonilor. Experiențele s-au bucurat de succes mondial și numeroase alte țări au început să experimenteze local. Costul pentru a crea astfel de pietonale rezidențiale experimente în România și pe plan local poate fi destul de ridicat, dar magnetismul creat de regenerarea zonală va aduce foarte rapid un profit maxim, cu bătaie lungă în timp.*

Cuvinte cheie: regenerare peisagistică, trafic urban, circulații pietonale rezidențiale.

INTRODUCTION

Since its introduction, in the XIX century, movement roadway car slowly started to choke the city. Man became a pedestrian with the advent of the car. Increasing number of cars lead to conflictual situations in urban areas and the pedestrian was in exile, from squares and streets, on sidewalks surrounding the building framework (Dascalu Doina Mira, 2006). Gradual degradation of the condition and pedestrian needs warned the researchers. Despite the warnings, the needs of pedestrians was not taken into account. Pedestrian circulation problem remained unsolved until now.

MATERIAL AND METHOD

To counter the disastrous effects, the mental and physical urban pollution, created especially by pedestrian traffic and urban public spaces degeneration and degradation, a first step that was outlined to be feasible was the rehabilitation of pedestrian traffic in residential areas.

Top initiatives successfully tested were taken from years '70 in Holland and Germany. Some residential roads, which became high traffic and polluted were "returned" pedestrian. Experiences enjoyed worldwide success and interest. Many other countries have begun to experience the invigorating effect, on all levels, especially the socio-economic interest specifically to offset these costs.

This paper studied some application ways through local experiments, for regeneration of degraded and polluted residential areas. The study aims as final result to stimulate attractive areas creation-healthy, clean and streamlined on multiple levels.

RESULTS AND DISCUSSIONS

“Woonerf” experiments

Terms under which they are known urban experiences "restitutio" or residential pedestrian regeneration are those originally used in early experiments in the Netherlands and Germany: the Dutch “woonerf” and German “verkehrberuhigung”. Literally, these words would mean “streets with a new life” or “space for all”.

How they proceeded?

Attempted revival lively charm that it had in the past these residential areas.

In a woonerf people on bicycles and on foot have full access to the street, not only on sidewalks. Moreover, the street functions are primarily those of a public "living-room", where adults, children and elderly, people with special needs and normal gather, socialize, relax in safety, because vehicle/cars speed is minimized (FHA University, 1999).

There are a few basic criteria for a woonerf (Donald Appleyard, 1981):

1. gateways that are controlled and announced into the woonerf;
2. curved to slow traffic vehicles;
3. recreational equipment and vegetation with dual purpose- forcing vehicles to slow;
4. remove borders;
5. intermittent parking for dwellers so that cars do not create a wall between the street and houses;
6. various landscape elements are often used to slow traffic, but also to improve the spatial experience pedestrians, giving them relaxation areas. Cars can pass only on selected locations and woonerf signalize. The speed limit is usually cca.16 Km / h. Nowadays there are woonerf areas in many big cities of the world (fig. 1 and 2)



Fig. 1. Woonerf in Tokyo



Fig. 2. Woonerf in Holland

Proposals for implementing locally

In the context principle to enhance comfort and quality of life, urban pedestrian spaces should become a value in itself, turning into community streets, residential streets, co-designed landscaping in the interest of serving several functions: recreation, education, contacts, information, etc. Thus it would create such pedestrian area which includes customizing. The desire to preserve the good virtues of our cities, to make them favorable for better social life, pedestrian problem area is required not only considered, but directed towards some practical solutions (fig. 3).



Fig. 3. Woonerf means community streets

The study has outlined several ideas presented below.

A. For local application of these experiments, we should start with an interactive morphological study documented residential tissues that allow us a check. From this study we obtain some criteria to make proposals outlining rehabilitation and urban interventions required landscaping. Environmental rehabilitation of selected areas primarily involves the creation of adequate urban

functions, not formal/abstract, to regenerate urban life and create a personalized atmosphere locally. Using the right tools for urban and landscape rehabilitation, we can turn residential streets into multifunctional spaces – fit for public, cultural, commercial and social activities.

B. Through a real contact with nature will be possible to regenerate respect for the "essential joys". The virtues of sustainable use of landscape morphological elements - earth , water, vegetation and adequate equipment - will provide contact and interference between movement and space for relaxation. The tack of this new pedestrian streets, with the presence of urban art objects, will give real visual therapy, stimulating local leisure. Small areas arrangements for various creative activities-outside classes will encourage more people to communicate in these areas. Such spaces will stimulate also users with special needs to attend these areas, to enjoy and socialize with other people.

C. For pedestrian safety, selected areas will be protected from traffic by creating a very low car traffic-movement will be limited to pedestrian walk - under 16 km/h. Through design and judicious location-using urban art, furniture, vegetation, special luminous signs, special decorative tiles - we can manage daily traffic and maintain very low vehicle speed to create safe pedestrian movement including children and elderly, but also for guests with special needs. Presence and proper location of public traffic lights at night will further improve safety area rehabilitated (fig. 4).



Fig. 4. Daily traffic is managed using furniture, vegetation, special signs

D. Also as a safety measure, special signs, visible identification of these areas, should be placed at each entrance to these places. Also, special attention should be paid to these areas to ensure easy access for fire trucks, sanitation vehicles, minibus transport to school, special parking places for vehicles and small cars riverside residents will be severely restricted and controlled, with

exactly given space. Pedestrians coming from outside will park outside. Magnetism of landscape composition of parking area and these regulations will encourage pedestrian movement.



Fig. 5. Special signs, visible identification of these areas

E. Since the street will be transformed into a common space, we will create conditions for pedestrians to use all areas of the public street. Road users - pedestrians and drivers - should not disturb each other. For the safety of pedestrians with special needs, proposals for design will provide a subtle distribution management footpath. To avoid obstacles or dangerous areas for people with reduced mobility are proposed area with a regular and homogeneous structure of the pavement (fig. 6). To support the mobility of blind or visually impaired will propose areas of tactile materials, tapes or specific relief. As a result, urban space will acquire magnetism and will generate direct social contact, an escape from anonymity and isolation.



Fig. 6. For people with reduced mobility - area with homogeneous pavement

F. This concept will strengthen in our city the social role of urban residential streets, old and new. The purpose of applying this new concept is to

create for visitors an escape from routine pollution in the reclaimed areas. Materialization of these proposals will end urban isolation. Mixing population with and without special needs, mixing ages, will bring back our direct inter-city communication, tolerance, peace, harmony, is a mean of restoring dignity and identity of all citizens. These places will be reanimated to educate new generations capable in feelings of self-esteem and their responsibility to the city and its needs. (Dascalu Doina Mira, 2006)

CONCLUSIONS

"Woonerf" experiences successfully implemented worldwide constitute very important lesson to be disseminated not only among specialists but also to the inhabitants. Because these experiments have already created attractive areas, healthy, clean and streamlined on multiple levels, implementation of such spaces is currently desired by majority of municipalities around the world. Concrete application of these experiments in Romania and locally, could be hampered from start of economic arguments. (Dascalu Doina Mira, 2006). The cost to create such residential pedestrian can be quite high, but the magnetism created by zonal regeneration will bring maximum profit, while far-reaching. Capital depreciation will be very fast due to the influx of people from other parts of the city and outside, which will encourage local development of new activities with new jobs and overall profit.

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