

- Visegrad Fund
- •

General conceptual approach of Obhodna street transformation

Oľha BONDARENKO

Oksana ZINKEVYCH

Marina BORDUN

10-12 September, 2018

The aspects of reforming (transforming) the historical urban environment:

- 1) structurally functional;
- 2) architectural planning;
- 3) infrastructural;
- 4) landscaping;
- 5) architectural compositional.

The architectural and planning organization of the street

The following activities are proposed:

- a) dismantling of “unnecessary” buildings - pavilions, shopping and advertising tents, other temporary structures;**
- b) ensuring horizontal transformation of the street, namely whether we can expand into the block, use yards, arches and passages into other streets;**
- c) local using of underground buildings will ensure vertical development of space: descent by escalators to dungeons and using these premises for cafes, museums, clubs, cinemas, quest rooms, playgrounds and other places for leisure activities.**

As a result of such actions, we will get additional territories.

The structural and functional transformation of the street

It is necessary to:

- a) search for the **"lost history"**,
- b) analyze what types of activities has been forgotten and how they can be revived in this street (bakeries, painting dishes, fairs, holidays, coffee and tea houses).

It is also possible to observe **the evolution of the "conflict" between new and old buildings**. Consider the ways to prevent this conflict.

It is necessary to analyze the use of buildings, determine the purpose and function of each building for this street.

Examine the technical condition of building structures, external and internal engineering communications.

To modernize the structure of buildings for identifying their historical value, moral and physical deterioration, the condition of engineering communications.

To repair (reconstruct) buildings taking into account eco-smart technologies:

- a) installation of solar systems, warming of floors and roofs,
- b) renovation of facades (replacement of windows and doors),
- c) ventilation with recuperation,
- d) accumulation of thermal energy in massive building structures.

Transport infrastructure

1. It is necessary to determine the importance of the existing tram route along Obkodnaya Street and the possibility of creating a non-transport area on this street. Is it possible to move the tram route and **create a pedestrian zone along Obhodnaya?**
2. If not, then to establish **demarcations of the pedestrian and** traffic with the help of small architectural forms, pots, vases, sculptures.
3. Is it possible **to build an underground transport tunnel** under Obkodnaya Street?
4. It is also proposed to consider **replacing the traditional electric transport for the innovative SkyWayCapital.**

This is a city String transport, which allows high-speed transportation of goods and passengers, that leads to a significant reduction of capital construction costs. The function of this type of transport can be both transport and sightseeing.



Public electric transport

Landscape aspect of the st. Obhodnaya transformation

Measures of the street greening and improving include a plane (archophytomelioration) and volumetric greening (planting trees in the ground).

It is recommended to provide archophytomeliorative measures during the reconstruction of the buildings:

- creation of biopositive socle zones in buildings (greening of the blind area constructions, socles, phyto-screening coating of walls, etc.);
- vertical greening of walls with the help of building terraces and verandas, the creation of ampel coverings and tends for the facades greening;

- the arrangement of winter gardens inside the buildings and creation phytomassage floors for them;
- greening as much as possible amount of free territory sites and artificial overground vertical greening of walls territories created with the help of underground space;
- using exploited roofs as a recreational area by roofs greening.



Vertical greening of walls



Proposal for the transformation of the Ispolkomovskaya street in Dnipro, Ukraine. Vertical greening of walls.

Methods of archophitomelioration. Student diploma project.

supported by

One of the widely used archophytomeliorative events is an outer vertical greening of the walls and facades.

Fast-growing vines or other climbing plants are used for this purpose because they are able to fully cover the wall of the 9-floor building in 5-10 years.

In order to protect the walls from overheating and rains and also for decorative purpose they are covered with boxes of amp plants with climbing vines and hanging twigs.

These archophytomeliorative projects make building biopositive and are a positive visually-psychological impact on people because it creates the feeling of being closer to the nature. Psychological influence of the environment on people, created by men (greening, silence, cleanliness, aesthetically favorable architectural forms etc) is the most important problem of the ecology.

Examples of the street greening



Tram-pedestrian street in
German Augsburg



*Example of greening a
pedestrian street in Dnipro,
Ukraine*

Lightning design



*Proposal for the
archophytomelioration
and the lightning design
of Yuzhnaya Street in
Dnipro, Ukraine.
Student's diploma project*





Lightning design of the pedestrian street in Dnipro, Ukraine

Architectural composition aspect of the st. Obhodnaya transformation

Restoration of the historical identity of buildings, harmonization of the architectural styles, composite and coloristic decisions, formation of the environment of the historical street by following principles of “unity in diversity and diversity in unity”. Active use of lightning design and small architectural forms.

In conclusion.

Essential methods of reconstruction of the historical environment of the city:

- implementation of the complex of the planned beforehand diverse researches;
- implementation of analysis of materials of archeological, historical, architectural monuments security, and also security of economical, social and other data;
- definition of basic ways of reconstruction and essential juridical, administrative and financial events;
- providing harmonic unification of historical districts with the city as a whole;
- definition of constructions, which are need of special protection;

- documentation of current state before any kind of interference;
- public discussion of reconstruction projects of historical building;
- providing safety and maintaining appropriate state of buildings;
- adaptation of new functions and infrastructural communications to a historical city specific.

Thank you for attention!!