

REVEALING NATURE THROUGH PLAY IN URBAN DESIGN EDUCATION

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INTRODUCTION

The challenge for urban design today is to help development of the healthy, vital, sustainable and resilient cities in which humans and nature flourish together.

Urban design education needs to help future architects and urbanists to develop knowledge, skills and awareness to create more ecologically sensible urban settings.

This study explores - How can design of the playground help students rethink the relation between man and nature, and create places where urban nature is revealed and enjoyed?

We argue that “the play” as concept and “learning by doing” as methodology together have a potential to help students develop ecological awareness.

ECOLOGICAL URBANISM AND DESIGN

Ecological urbanism draws from ecology to inspire urbanism that is more socially inclusive and sensitive to the environment, and seeks for new ethics and aesthetics of the urban .

Ecological design is an effective adaptation and integration with nature's processes and is based on five principles:

1. ***Solutions grow from place***, meaning that ecological design begins with the intimate knowledge of a particular place;
2. ***Ecological accounting informs design***, suggesting the importance to trace the environmental impacts of existing or proposed design,
3. ***Design with nature***, meaning that by working with living processes, we respect the needs of all species while meeting our own;
4. ***Everyone is a designer***, implying that it is important to listen to every voice in design process and overcome the division between participants (users) and designers (professionals).
5. ***Make nature visible*** - in order to bring the designed environments back to life and to activate our potential for learning;

(Van der Ryn and Cowan, Ecological Design)

PLAY AS A TOOL IN URBAN DESIGN EDUCATION

PLAY is one of the basic phenomena of human existence that permeates and reflects all other domains of life, and may function as a social amalgam. The play can also be understood as a metaphor and expression of human freedom and choice.

Linking play theories with architecture and urban design in order to help architects, designers, landscape architects, and artists reinvent urban public spaces:

“In our increasingly dense cities, recreational and play spaces are vital to achieving healthy and sustainable cities and are at the core of new urban planning and design initiatives”

(Ryan, The Good Life: New Public Spaces For Recreation)

Although play based learning is well developed concept in children's education, it is not explored enough at academic level.

WORKSHOP as context for “**LEARNING BY DOING**”

Workshops are spatially localised and material events that can be organised in many forms and produce many positive outcomes.

As a learning format, workshops are based on the concept of “**Learning by doing**”, meaning learning from experiences resulting directly from one’s own actions. The concept is based on the idea that **actions do not only follow thinking – they induce thinking.**

Experiential learning tasks should be designed to improve students' understanding of problem, by giving them the **freedom to explore** and find the **learning path** that is most suitable for them.

PEDAGOGICAL EXPERIMENTS in urban design education

WORKSHOP: Make Nature visible!

- The workshop is a part of **Ecological Urban Design Studio** at University of Belgrade Faculty of Architecture. The work in studio builds upon theories and principles of ecological urbanism, and uses active learning methods in order to help students gain knowledge, skills and abilities for designing ecologically sound urban environments. **The role of the workshop** is to conduct specific design task, to test basic ideas and to reflect upon them as a part of the learning cycle in project development.
- Students were exploring **potential of play** (as concept, activity and design problem) to help them rethink the **relation between man and nature**, and to create places where urban nature is revealed and enjoyed. Their task was to **propose, test and document a mini-spatial intervention** that re-examines the relationship between man and nature in urban space on specific location, through 4 phases: **preparation, realisation, reflection and presentation**.
- The **process and results of the workshop** were presented as design projects, artefacts and portfolios, and **analysed** for this research.

WORKSHOP Make Nature visible! phases

PREPARATION PHASE includes definition of context, concept and models-segments of PLAY in relation to nature.

- Definition of **CONTEXT** – initial elements that lead the concept of playground of each student.
- Definition of **CONCEPT** - a textual / visual explanation of the understanding and use of the idea of PLAYING in relation to NATURE that leads design of the MODELS – SEGMENTS of PLAY(ground) and SYSTEM OF PLAY.
- Design and construction of **MODELS – SEGMENTS of PLAYground**: Each student makes 4 models as spatial- functional segments of play related with at least 1 natural form (trees, relief, grass, water).

REALIZATION PHASE - A " SYSTEM OF PLAY" is formed in class by combining all available segments from a group of students, and is documented (photos, films ...)

REFLECTION PHASE - Students reflect upon what they learn from the workshop and provide a graphic and textual overview in portfolios.

WORKSHOP: Make Nature visible! results







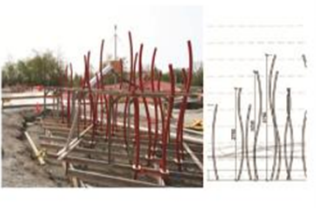




a) Workshop , source: Marija Cvetković







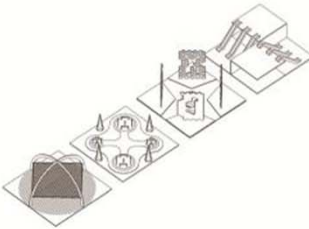

(b) Models - Segments of play, source: Katarina Stojić

The results of the students' works are from the workshop conducted in 2018., related to the location of Block 70 a in New Belgrade, characterised by modernist buildings, vast and underused green spaces and presence of the Sava river.


WORKSHOP Make Nature visible! results

	CONTEXT	SEGMENTS OF PLAY	SYSTEM OF PLAY
Student 1 Ana Simić CONCEPT <i>"Overcoming an obstacle means: try, fall, try again, succeed; just like first steps, like a child's play, like a game all of us. Play in nature and with nature is divided into four topics: Bridges, Ponds, Theatre, Labyrinth"</i>			
Student 2 Anja Trivić CONCEPT <i>"The concept of the playground is based on different movements of children and modes of behaviour that may be useful to them in nature: Climbing, Hiding, Dragging between, Skipping"</i>			
Student 3 Katarina Stojić CONCEPT <i>The Idea of the playground as art installation, but also as link to childhood. Forms of play developed through: Indian tribe, Bridge, Mirror, Labyrinth</i>			


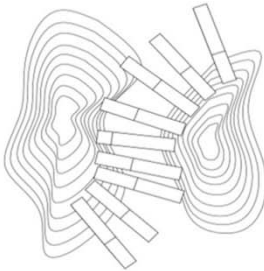


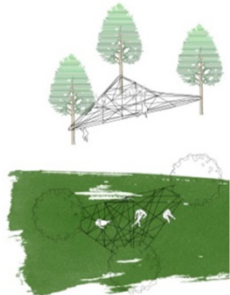

WORKSHOP Make Nature visible! results

<p>Student 4 Marija Milijašević</p> <p>CONCEPT <i>"As a child, I always spent time outside, in nature. I loved running, climbing trees....we all dreamed of a cottage on the tree"</i> <i>There are so many games to be played with, around, on the trees and with ground"</i></p>			
<p>Student 5 Marko Jovanović</p> <p>CONCEPT <i>"Nature itself is very inspiring and diverse. The beauty of Nature is that it keeps everything in balance, harmony. Even "anomalies", have their reasons ... We are part of nature and aware of it in many different ways from early childhood."</i></p>			

WORKSHOP Make Nature visible! results

	CONTEXT	SEGMENTS OF PLAY	SYSTEM OF PLAY
Student 6 Sara Aćimov CONCEPT <i>Starting from the book "Last child in the woods" that promotes free play in nature, the project aims to encourage logical thinking through play and explores tactical use of different natural materials (grass, wood, sand, water...)"</i>			
Student 7 Marko Jovičić CONCEPT <i>The idea is to combine and harmonise vertical and horizontal elements of nature, through modelling the ground, and constructing barriers in order to support variety of recreational activities</i>			
Student 8 Nevena Vujić CONCEPT <i>"The idea of the playground is based on active play that develops motor skills and physical dexterity. Play in nature should activate all senses and stimulate them to move in different ways. "</i>			

WORKSHOP Make Nature visible! results

<p>Student 9 Petar Đorđević</p> <p>CONCEPT <i>"Today, children spend time in front of the computer, communicate and move poorly... Therefore, they should be returned to the air, wind, rain, forest, stone.... To free move and free play"</i> </p>			
<p>Student 10 Tijana Lovrić</p> <p>CONCEPT <i>"The idea for playground is based on the perception of forests as maze to play"</i> <i>Trees, trunks, branches and canopies can be transformed into tunnels, labyrinths and net structures...</i> </p>			

REVEALING NATURE THROUGH PLAY

The results of the students works and their reflections in portfolios, show that during each of workshop phases students were initiated to think and establish connection with nature in different ways:

- In relation to **context** as the basis for playground concept, students recognised different elements of existing urban nature(trees, fields, river, ponds, hills, skyline), but also referred to childhood as context where stronger connection between man and nature existed.
- Variety of playground **concepts** reflect the variety of ways in which nature can be revealed and interpreted: a) as a potential for play, b) as the idea to motivate users to be more free and active, or c) to develop their natural potentials. Some approaches were more abstract in interpreting d) forms and e) relations from nature, or f) treating nature as setting for playful art installations.
- Design and modelling **segments of play** showcased variety of possibilities to reveal nature and connect it with play. Different natural elements were used for producing playful situations and for simulation of curiosity and fun.
- Developing **play system** during workshop realization phase, resulted in variety of playground forms: disperse, compact, linear, area, as well as in their combinations. Students managed to connect “**logic of play**” with “**logic of life**”

REVEALING NATURE THROUGH PLAY

It is possible to identify four main relationships between the Nature and play as reflected in students' portfolios:

- **Play in nature** – in this conceptualisation nature is used as setting for play activities, and this combination produces new memorable experiences.
- **Play with nature** – this approach is related to nature perceived as playful by itself and with naturalisation of tools and devices for play
- **Play through nature** – in this approach nature is used as a lens and starting point for choice of play activities. Nature inspires and leads play as form or as the activity associated with natural behaviour.
- **Play as nature** – this conceptualisation focus on the feeling that we feel as being part of nature - when we play.

REVEALING NATURE THROUGH PLAY

Play (as a concept, design task and playful workshop activity) can effectively be used **as tool for** educating students toward ecological urbanism by making them **reveal and rethink man-nature relationships** and helping them to produce places in which man and nature can flourish together.



Students' research, projects and reflections indicate that through „**learning by doing**“ workshop conceptualisation and delivery, they **became aware of NATURE** and of its role in urban design and urban life in many different ways and through different learning paths.