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STICKS AND LADDERS - PHYSICAL AND THEORETICAL APPROACHES TO THE INTEGRATION OF PARTICIPATORY DESIGN INTO SCHOOL CURRICULA.

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DOI: 10.63442/NMJD6317

**KEYWORDS | PARTICIPATORY DESIGN, LEARNING SPACES, LEARNING ENVIRONMENT EDUCATION,
SPATIAL LEARNING, OUTDOOR LEARNING**

ABSTRACT | To look at spatial perception and creation as learning processes and the connection between learning spaces and pedagogical methodologies. The workshop is rooted in two physical exercises from the introduction phase of Basalt School, an educational program to create outdoor learning spaces in elementary schools through participatory design. CAN Architects' Basalt School program has provided Hungarian schools with 22 outdoor classrooms in 2021-2023 and, in 2024, is planned to grow with 100 more, already on an international level too. Building as a learning process provides an ideal environment for experience-based education due to its seemingly elementary yet multi-sensory and multi-layered activities, which raise the curiosity and awareness of participants effortlessly. Due to the 1:1 scale conscious transformation of the environment, teamwork becomes natural, and the spatial vocabulary is introduced through the perception and use of the natural and built environment. The use of real-scale tools to create real-scale spaces is a key element in the process, based on the Inner 3D (CSEH 2015) spatial learning method and also following spatial education methods from the Bauhaus Vorkurs and its Total Theatre (WILCOX 1998) as well as the experimental architecture courses of Juhani Pallasmaa (WALL 2013).





Figure 1. The Ladder - Building trust through cooperation in 1:1 scale spatial exercises.

At the start of participatory design processes, the workshop's building and reflection tools are used as an introduction to spatial consciousness, possibilities and responsibilities towards the natural and built environment, representation roles in the process, and target levels on the ladders of citizen participation (ARNSTEIN 1969) and children participation (HART 1992).

These tools - the sticks and ladders - are not just spatial elements to create with but also representations of the possibilities/abilities and difficulties/disabilities of participating groups and individuals. Their presence creates burdens and opportunities to be handled. Inclusion comes through the investigation of the shared tasks, the reflective role assignment of the members of the group, and the building process itself.



Figure 2. Sticks – Spatial teamwork about the possibilities and responsibilities towards our natural and built environment.

The evaluation starts with the objective and measurable attributes, looking at the data of the result objects. The process assessment follows with a self-reflective evaluation of the learning curve and the possible applications of these build-and-learn spatial learning methods.

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András Cseh is a graduate in architecture from the Budapest University of Technology and Economics. In 2008, he started working at CZITA Architects and in teaching architectural design at Széchenyi István University. Pre Architecture - Learning Through Space, his doctoral research at Moholy-Nagy University of Art and Design investigated the connections between spatial perception and creation as learning processes. In 2017, he co-founded CAN Architects, an architectural studio with a strong focus on learning spaces and built environment education. Based on their multidisciplinary research with pedagogic and psychological experts, the studio developed spatial learning innovations such as the Alcoved Classroom and the Turning Classroom. Currently, he is lecturing on learning spaces, school architecture, and spatial awareness in education for students of pedagogy at the University of Pannonia and students of psychology at Eötvös Loránd University. He promotes outdoor learning and 21st-century learning design at the Basalt School, his office's education program.

Szilárd Köninger graduated in architecture in 2012 from Széchenyi István University, where he founded and organized villageBUILDING, a series of social design and build workshops to enhance the spatial possibilities of rural life. After having worked at Promontorio (Lisbon, Portugal), DGT Architects (Paris, France), and CZITA Architects in 2017, he co-founded CAN Architects, an architectural studio with a strong focus on learning spaces and built environment education. Based on their multidisciplinary research with pedagogic and psychological experts, the studio developed spatial learning innovations as the Alcoved Classroom and the Turning Classroom. Currently, he is running Basalt School, CAN Architects' education program to promote and integrate outdoor learning and 21st-century learning design into the national school curricula of Hungary.

Acknowledgements: Basalt School is the spatial education initiative by CAN Architects. Therefore, the whole team of the architecture firm deserves praise and recognition, especially our founding partners: József Élő, Dávid Németh, and Ádám Tátrai.

P / REFERENCES OF DESIGN

This contribution was presented at Cumulus Budapest 2024: P/References of Design conference, hosted by the Moholy-Nagy University of Art and Design Budapest, Hungary between May 15-17, 2024.

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ISBN Volume 1: 978-952-7549-02-5 (PDF)

ISBN Volume 2: 978-952-7549-03-2 (PDF)

DOI Volume 1: <https://doi.org/10.63442/IZUP8898>

DOI Volume 2: <https://doi.org/10.63442/TADX4016>

Conference Organisers

Moholy-Nagy University of Art and Design Budapest (MOME)

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