Playhouse: A Pedagogical Approach to Community-Driven Design-Build Projects

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> "Alice opened the door and found that it led into a small passage, not much larger than a rat-hole: she knelt down and looked along the passage into the loveliest garden you ever saw. How she longed to get out of that dark hall, and wander about among those beds of bright flowers and those cool fountains, but she could not even get her head through the doorway; 'and even if my head would go through,' thought poor Alice, 'it would be of very little use without my shoulders."
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> —Excerpt from "Down The Rabbit Hole", in Alice's Adventure in Wonderland by Lewis Carroll (first published in 1865).

In the story Alice's Adventure in Wonderland by Lewis Carroll, the adventure begins when young Alice is transported through a rabbit hole, eventually landing in a fantasy world full of unusual and peculiar creatures. In search of the elusive rabbit and without any foreseeable plan, she is driven by sheer curiosity and a propensity for discovery; attributes that are abundant in every child alike. Through her journey she discovers a series of spaces, conditions and gateways that force her to navigate through this imaginary land. The environments depicted in the novel (i.e. the architecture) play a significant role in Alice's adventure culminating in a series of landscapes, rooms, doors and portals that possess inherent spatial qualities, material effects, atmospheric conditions and oscillating scale. Through imagery and the experiential dimension of space, the storyline is enhanced and frames the setting in which Alice is submerged in adventure and activity, interacting with peculiar animals, negotiating relationships all the while continuing her journey of discovery through Wonderland.

Figure 1. Children engaging with playhouse 1. Image credit: MSoA.

Figure 2. Student fabrication and assembly (Playhouse 2). Image credit: MSoA.

Figure 3. Playhouse 3 interior. Image credit: MSoA.

Lewis Carroll's novel served as inspiration and formed the basis for the term project. Beginning with the notion of play – curiosity, creativity, speculation, interaction and movement, student groups were required to design a series of playhouses that would encompass a variety of playful activities that children could engage in while providing a continuous and spirited journey throughout the structures. The activities and overall playhouses were designed for child development stages specific to: infants (6 months – 1 year), toddlers (1-2 years) and preschoolers: (3-4 years).

The student work produced was part of a 3rd year undergraduate studio, highlighting the methods and methodologies that address the pedagogical significance of collaborative design-build activities and immersive community outreach initiatives. The design-build was conducted over a five-week period, a partnership between several parties including the McEwen School of Architecture at Laurentian University, Better Beginnings Better Futures (a not-for-profit organization) and a local material supplier. Students and faculty alike were inspired by the prospect of working alongside a not-for-profit that focused on prevention programs for high-risk communities. Their vision focuses on prevention in order to reduce the incidence of serious long-term emotional and behavioural problems in children, on promotion; to promote the optimal social, emotional, behavioural, physical and educational development in children and on community development; to strengthen the ability of communities to respond effectively to the social and economic needs of children and their families.

Drawing inspiration from this unique opportunity, the project introduced topics that students would explore throughout the semester, including: the importance of "play" in childhood development, design principles for early childhood, child development domains and learning in natural environments. To create momentum and excitement for the project, an intensive 1-week design charrette was launched where students were paired and asked to explore the importance of "play" in childhood development and to investigate design principles for early childhood in order to inform the design-build of four unique playhouse structures. Students were re-introduced to Lewis Carroll's Alice's Adventure in Wonderland, focusing on the architectural relevance of her journey, serving to develop a conceptual approach to a playhouse that could be materialized under the one-thousand dollar prescribed budget. In doing so, the emphasis was placed on the student's ability to address the physical, social-emotional, sensory, cognitive and communication domains through their architectural interventions. Upon presenting their concepts to a panel of architects and community members, students were then placed into larger

Figure 4. Group Work - Schematic Design. Image credit: MSoA.

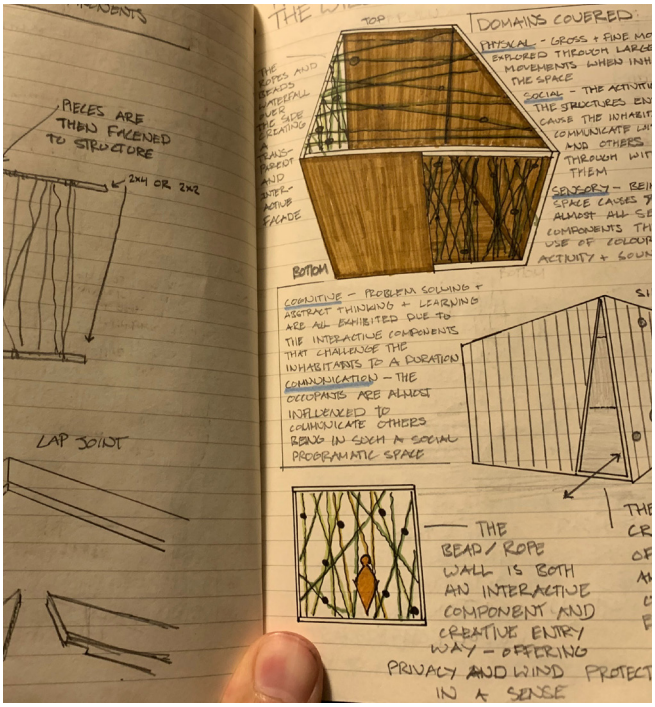

Figure 5. Student sketches. Image credit: MSoA.

Figure 6. Playhouse 2 Interior. Image credit: MSoA.

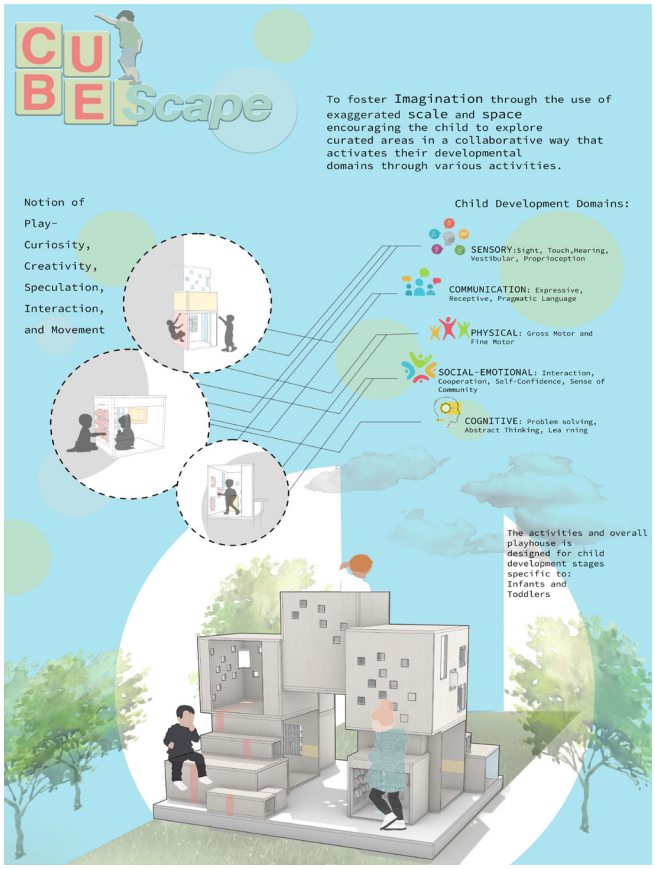

Figure 7. Student group presentation panel. Image credit: MSoA.

Figure 8. Student group presentation panel. Image credit: MSoA.

groups where they were asked to work collaboratively as a team and combine the successful attributes of each proposal into a cohesive and unified design strategy. The studio encouraged and fostered a hybrid methodology fluctuating between the digital and the physical realm where sketching, 3D modeling, physical model making and 1:1 prototyping formed the basis of their design explorations. In addition to their conceptual approach, students were required to resolve the technical and practical implications of their design and abide by rigid construction guidelines to ensure the fabrication of a safe yet engaging playhouse. Sharp edges and large openings were to be eliminated, hardware was to be concealed and the use of any toxic sealants or glue was to be avoided.

Students worked in teams, learning from each other and pushing through adversity as it arose. The ability to work with materials and tools at an intimate level and within a collaborative environment was a valuable learning outcome. It not only provided them with a better understanding of architectural tectonics but prepared them for future architectural practice where the complexities of site, building and program require collective efforts from teams of engineers, consultants and stakeholders.

The playhouses were constructed, installed and displayed in the courtyard at the McEwen School of Architecture to kick-off a two-day community event where children from high-risk communities had the opportunity to engage with the newly constructed structures. The event was a success attracting many families, community members and local media outlets. Upon completion, the playhouses were donated and delivered to the not-for-profit organization.

Overall, through the methodologies presented, the project highlights the significance of community-driven design-build projects within a pedagogical framework. It promotes community-engaged scholarship within the curriculum as an opportunity to enhance the student's architectural experience. The ability to work in a collaborative environment, to explore materials and fabrication tools at a tangible scale and to work with community members towards a common social objective is a rewarding experience for both faculty and students alike.

ENDNOTES

1. Carroll, Lewis. Alice's adventures in wonderland. Broadview Press, 2011.

Figure 9. Community Event. Image credit: MSoA.

Figure 10. Community Event. Image credit: MSoA.