

Mouse House

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The Mouse House is a small design/build project that was done in the framework of an architecture seminar on concrete. The Mouse House is part of series of “play-follies” along a nature trail for the Jowonio Primary School, a not-for-profit pre-school, serving young children with special needs.

The aim of the project was to find and test new fabrication methods rooted in conventional construction technologies and methods but liberated from the myth of their norm. These methods give an insight into how construction can participate in the complexity of today’s tension between the built environment and its surrounding ecologies and create new architectural expressions for objects that ‘recognize and celebrate the finitude as a condition of the human being’ (Hayles, N. Katherine).

Concrete is simultaneously one of the oldest yet most current construction materials being used today for its capacity for long-spans and high ductility. Its structural capacity is the underpinning of modern society, whether it is used for buildings, roads or dams. In many ways concrete is a material of contrasts: liquid and solid, continuous and modular, massive and filigree.

The mouse house reflects this contrast by the superposition of the fabrication of the exterior form through the use of a CNC milled formwork on the exterior and an interior formwork made from hay bales covered with a mud-straw mixture, combining one of the most current methods of fabrication with traditional composite construction methods.

The form and size of the Mouse House is based on the need for autistic children to find a space to hide and feel sheltered. The texture of the outside pattern and the roughness of the interior surface with its imprints of leaves and twigs offer different sensations for autistic children who best understand the world through haptic sensations.

MOUSE HOUSE

DESIGN / BUILD PROJECT - JOWONIO PRIMARY SCHOOL - SYRACUSE NY



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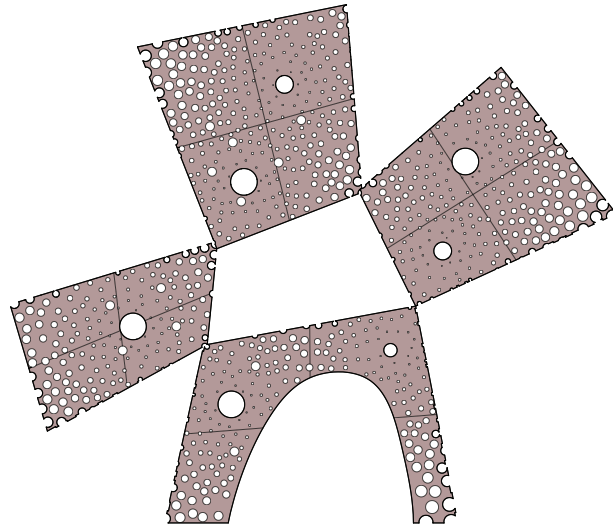
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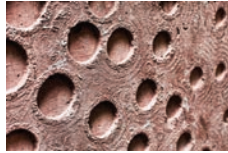
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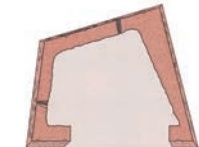
cut sheets with exterior pattern for CNC-fabrication



With the outside pattern is parametrically generated from studies of nature, the inside reveals the imprint of leaves accumulated during the construction process.



At the inside, the holes puncturing the walls create a play of light, and let children see the forest framed in different views that capture the ground, the foliage or the sky.



plan



section



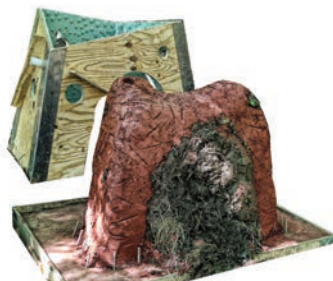
step 1: stacked hay bales as substructure for inner formwork

step 2: straw mud covers hay bales as inner formwork

step 3: CNC fabricated outer formwork with tubes for openings that serve simultaneously as form ties

step 4: in-situ dyed concrete is poured into formwork and vibrated

step 5: interior and exterior formwork removed along with tubes time to play!



Materials