

Micro Library

Learning Center, Bandung, Indonesia



Main authors

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Project data

Project group: Architecture, building and civil engineering
 Client: City of Bandung
 Project background: Public commission
 Planned start: December 2017

Summary and appraisal of the project by the jury

Set within a park, this "micro library" aims to raise literacy by offering attractive spaces for reading. The proposal is part of a larger project to construct a network of libraries across the country. It will be the fourth completed by the group, each with a unique, site-specific design. This pavilion structure rests on four spirals of columns that define smaller enclosed spaces for storage, restrooms, and a prayer room. The rest of the covered space is completely open to the park. Ground and ceiling are covered with both natural and artificial greenery to extend the park into the building. Basic construction methods are easily achievable in the local context. By putting together simple components in a creative way, the project achieves complexity with minimal means.

The jury was impressed by the project's vision of a network of libraries across Indonesia. Especially compelling is the specificity of each individual project. Every building responds to the needs of the local community and the urban context. Here, the project opens on all sides to the park around it, inviting the community to enter and explore. This is a fresh approach to the library - typically, a rarefied, closed environment. Unconventional materials - in this case, a moss ceiling and artificial grass floor - also make the project an exploration in unorthodox textures and construction techniques. By multiplying small, inviting reading spaces without replicating a single design gesture, the project constructs a territorial project reinforcing literacy and defining community.

Statements on the sustainability of the project by the author

Micro library as a program to empower users: the power of small, attractive, and many

In 2012, we initiated the Micro library program, with a mission: to make learning attractive and reachable for Indonesia and beyond. Though the economic forecast for Indonesia is optimistic, the current infrastructure does not support to improve its Human Development Index. Eager-learning students are hindered by the lack of facilities; libraries are far from being popular. The role of beautiful design can make libraries attractive again. Instead of positioning libraries in the city centers, why don't we bring libraries closer to their homes? In 2016, two micro libraries have been built in Bandung. Four more are in planning, one is the Fibonacci Micro library. Each micro library is uniquely-designed to fit programmatic demands of each community's and site's potential.

From file to craft: bridging parametric-based design with local construction technique

The question is how to design and build within a simple manual labor-focused construction environment. Instead of from "file to factory", a "file to craft" solution was sought. The parametric grasshopper model uses standardized construction elements (the rib structure) in a flexible way to generate design variations in terms of the amount of ribs, number, orientation and layout

of spiral rooms, building height, rib dimensions. For the material, shotcrete structural insulated panels are used. Here concrete is sprayed onto a form core clad in a metal mesh. In this case it gives the opportunity to build a lightweight construction which reduces the load on the foundation and thus material usage. Cast in-situ method also solves logistic issue of transporting pre-fab ribs to the site.

New nature: modern urban ruin in the lush green park (landscape = furniture = structure)

Being situated within a park, having an all-side open pavilion where one can enter from any direction is contextual and relevant. We would like to perceive the pavilion as a fully integrated structure and being reclaimed by nature like an almost forgotten ruin. We question the modernist idea of functional separation of constructive elements and thus the columns made of ribs were designed with a bigger radius so as to house multiple programs. At the same time the ribs will function as integrated bookshelves for the library. In that sense the spiral array of the ribs is a hybrid of structure, functional requirements and fixed furniture. Green roof, moss ceiling and green carpet (artificial grass) enable the continuation of the park into the library, an experience of seamless green spaces.

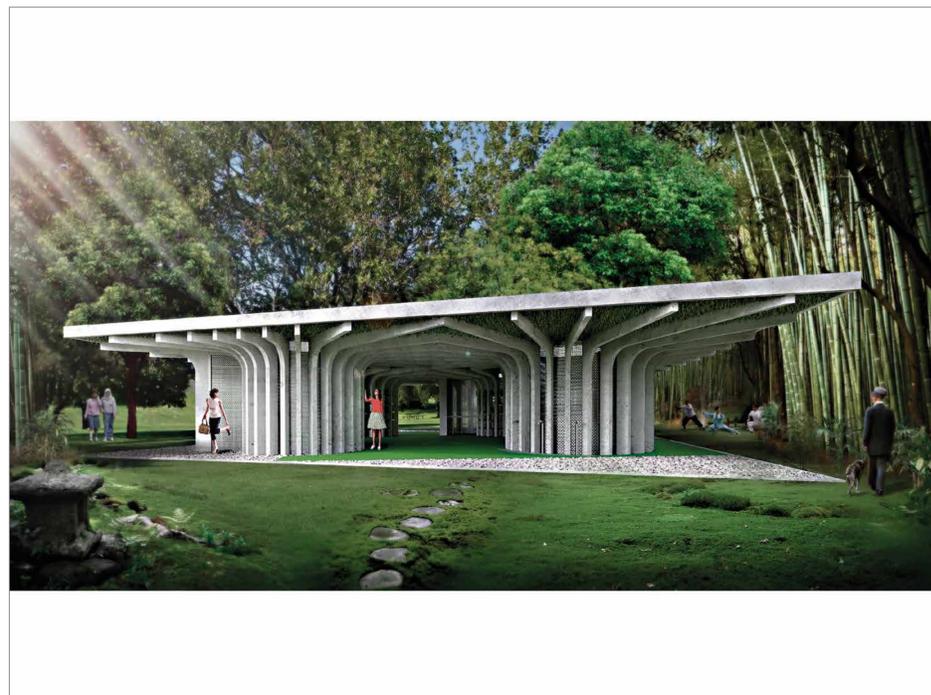


Image 1: Fibonacci Micro library as an "urban ruin" in the middle of the lush park. The parametrically designed, spirally-arrayed structure blends in while at the same time, stands out. The form invites park users to come. At a glance the users do not perceive the sculpture as a library, yet soon upon entering they could pick a favorite spot and start reading. By means of architecture design we would like to make reading attractive (again). The three spiral rooms host a kiosk, a musholla and two toilets.

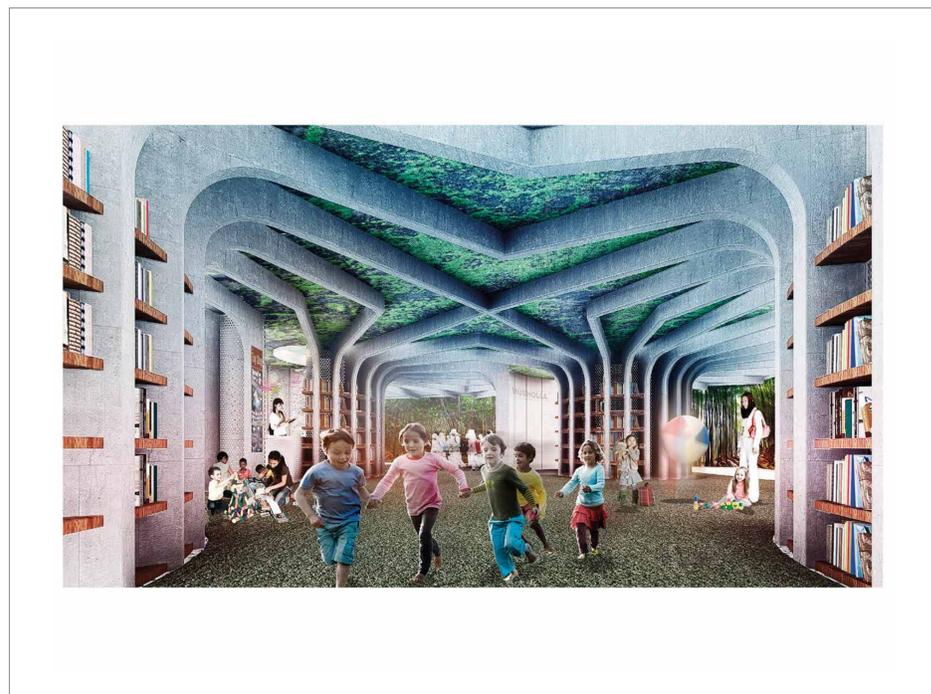


Image 2: The combination of lightweight concrete structure, green roof, moss ceiling and artificial grass carpet, present a "new nature" in itself. The green surface of the park is continued into all horizontal surfaces of the library. As a result, visitors may experience going through a sequence of open and semi-open green spaces. The all-side open pavilion where one can enter from any direction allow cross-ventilation and natural lighting. The main area can be used for reading and community gathering.

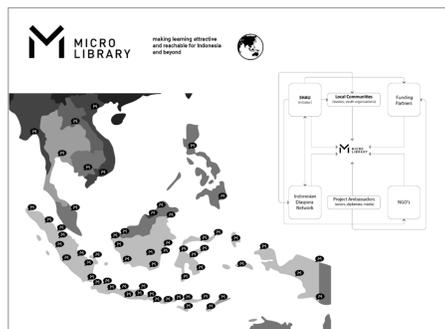


Image 3: Micro library is a campaign to raise literacy by means of unique architecture and empowerment.

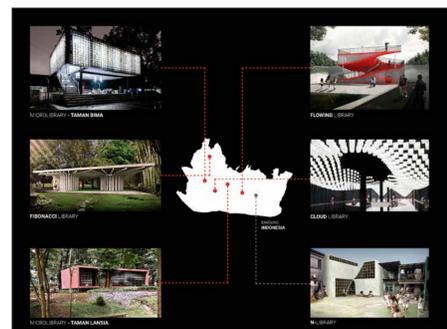


Image 4: The first two micro libraries have been built in Bandung, while four are in planning. Each is unique.



Image 5: For this micro library, the location is at Taman Kolan, a lush urban park in Bandung.

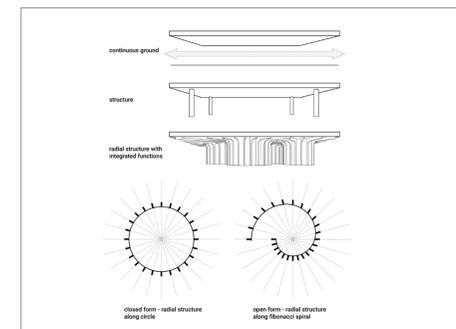


Image 6: Radial structure with integrated functions allows continuous, flowing indoor-outdoor spaces.

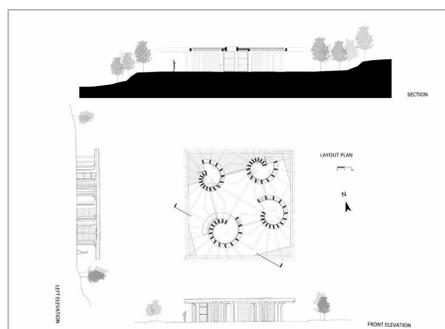


Image 7: The plan uses spirally arrayed columns, where each spiral hosts a kiosk, a musholla and two toilets.

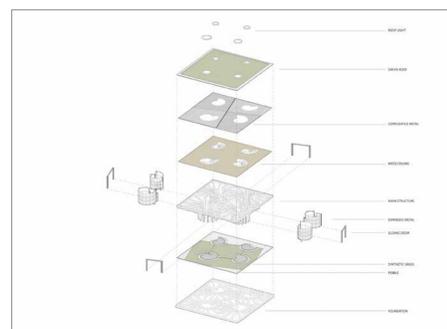


Image 8: An isometric diagram of the structure in parts.

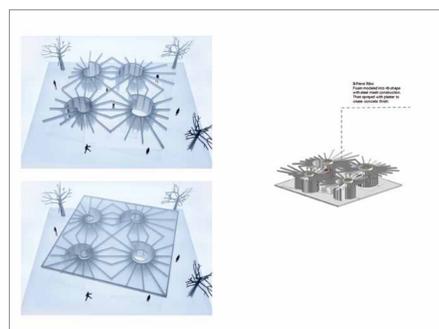


Image 9: Left: Concept model shots (without and with roof). Right: 3D image specifying material.



Image 10: Left: 1:1 foamcrete mock-up panels and detail. Right: moss ceiling impression and detail.