



FIBONACCI LIBRARY

The basic idea is to have a modern urban 'park' in a park, with parametrically designed and spirally arranged curved concrete ribs holding a lightweight roof with a resin-coated finish. Coexisting with the natural surroundings, the library will provide a semi-outdoor and shaded reading space in between a parking area, lawn, and sports area located in the spiral ramps. The building could also be used to host arts-related events.

DESIGN BRIEF

The library design started out as an experimentation initiated by the architecture office. A flexible parametric model was made that could be adjusted according to exact context, and it was presented as a prototype in the middle of the building, who then assigned a location within Kijang Park for the project. When he more confirmed the site, the idea of having a pavilion open on all sides for visitors to enter from whichever direction became more relevant. It was then the architects perceived the pavilion as a structure where it should be fully integrated with and 'reclaimed' by nature, almost like a forgotten ruin.

DESIGN PROCESS

The design process was designed with a bigger radius so that they can locate the different functions of the building. At the same time, the ribs will also serve as integrated benches. The idea of the spiral ramps came about while experimenting with various heights of entry into the center of the thick columns, which were then converted into the parametric model. This was then incorporated into the parametric model to create the final design. The ribs are also intended to be part of the ground level in adjacent the pavilion, and will be used as a reading area. The ribs are oriented to the outside so that they are accessible near after opening hours, whereas the interior ramps and stairs are oriented to be more accessible after the library's closing hours in the evening.

CONSTRUCTION AND MATERIALS

The ribs are structural insulated concrete, which is used in concrete 'columns' with a base core (columns) and a hollow core (ribs) with the benefit of thermal insulation to form a building envelope. It allows for the opportunity to form a building envelope in a relatively light on the foundation and to reduce the weight of the structure. The ribs are also intended to be part of the ground level in adjacent the pavilion, and will be used as a reading area. The ribs are oriented to the outside so that they are accessible near after opening hours, whereas the interior ramps and stairs are oriented to be more accessible after the library's closing hours in the evening.

PROJECT DATA

Project Name: Fibonacci Library
Location: Kijang Park, Surabaya, Indonesia
Status: Ongoing
Expected Completion: 2017
Site Area: 1.5 ha
Ground Floor Area: 1000 sqm
Number of Floors: 2
Building Height: 10 m
Client/Owner: PT. Kijang Park
Architect: PT. Kijang Park
Photographer: PT. Kijang Park

FUTURARC

The Voice of Green Architecture in Asia-Pacific

May-Jun 2017 | volume 54

GREEN AWARDS

Inside: FuturArc Prize 2017; meet the winners | Dr Wolfgang Kessling; physicist and climate engineer, Transsolar Energietechnik GmbH | Works of Hong Kong Housing Authority; SHAU International; T.R. Hamzah and Yeang; Vo Trong Nghia; and more | Special Supplement; winning entries of FuturArc Prize 2017

With projects from China, France, Hong Kong, India, Indonesia, Malaysia and Vietnam

SPECIAL DISCOUNT FOR STUDENTS—SEE INSIDE FOR DETAILS!