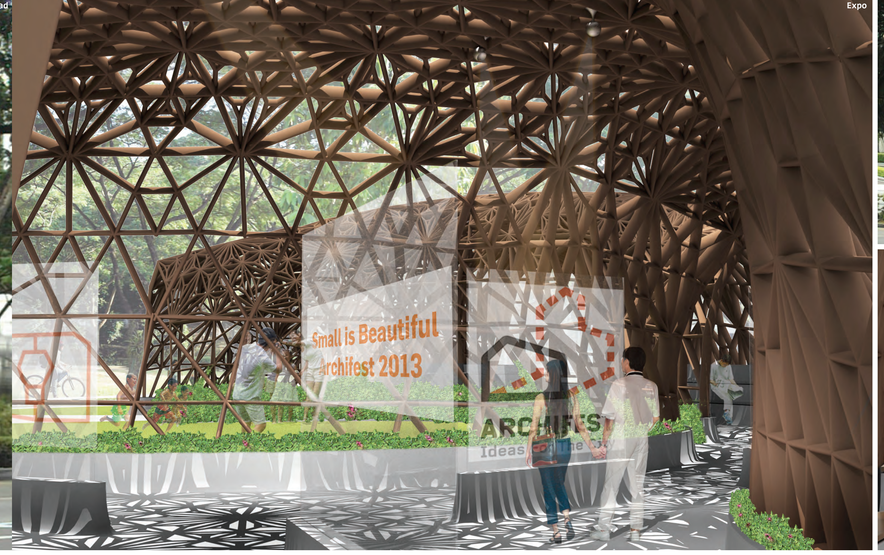
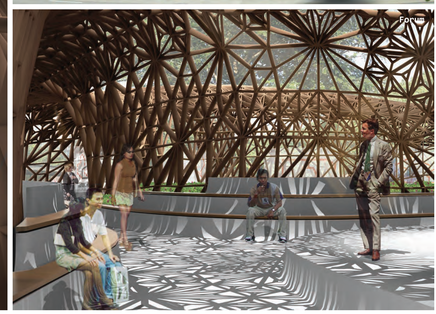




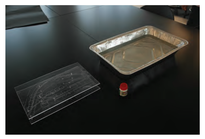
dhoby B.A.S.E.

Branching

Adaptive

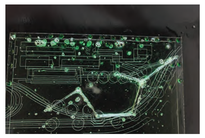
Solar

Envelope

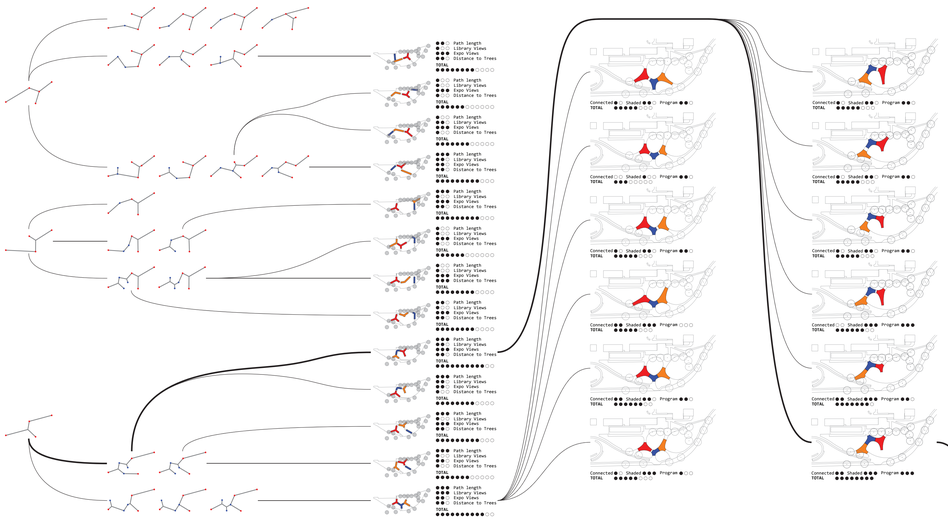


Experimental Setup:
Soap bath and site model with **important nodes** (MRT, Bus Stop, etc.)

When the model is dipped into the soap bath, a **network of connections** emerges between the nodes.



By adding additional, **flexible nodes**, and by repeated dipping, **variations of path networks** can be generated.



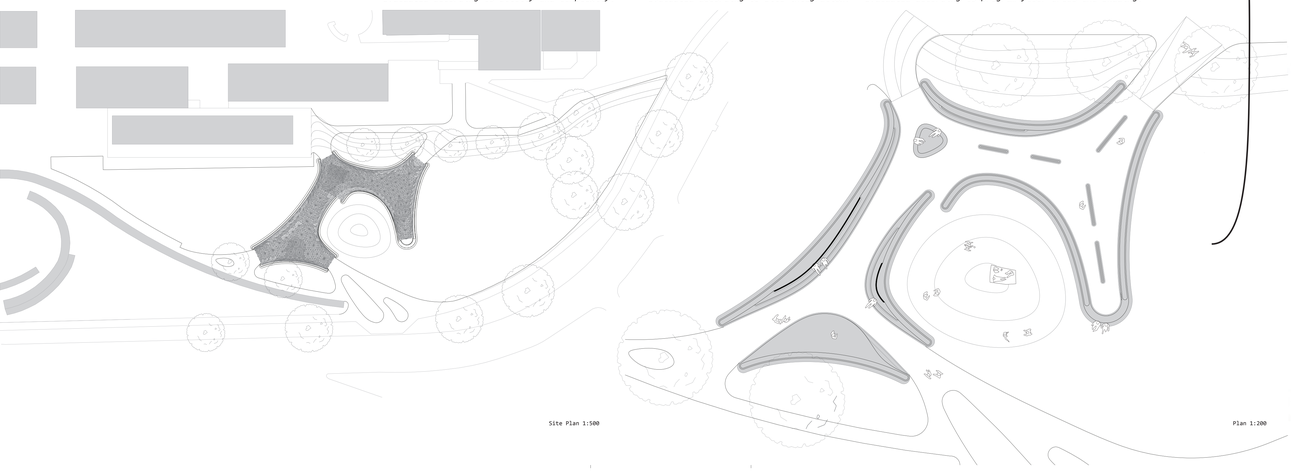
1. BASIC NETWORKS
With fixed nodes only.

2. PATH NETWORK VARIANTS
With fixed and additional nodes.

Evaluated according to utility and complexity.

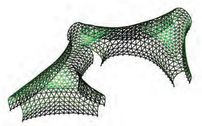
3. MASSING VARIANTS
With Library, Expo, and Forum
as nodes in the path network.
Evaluated according to site integration.

4. DESIGN VARIANTS
With Library, Expo, and Forum,
as expanded nodes, with width and height assigned according to program.
Evaluated according to program floor areas and shading.

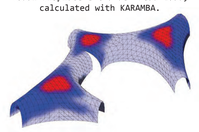


Site Plan 1:500

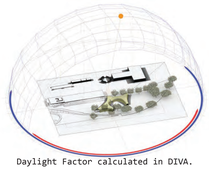
Plan 1:200



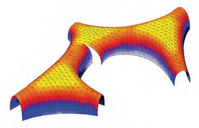
Nodal Displacement under Dead Load, calculated with KARAMBA.



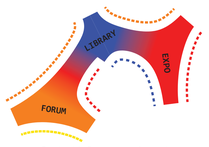
PATTERN DENSITY BASED ON STRUCTURAL ANALYSIS



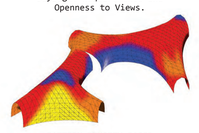
Daylight Factor calculated in DIVA.



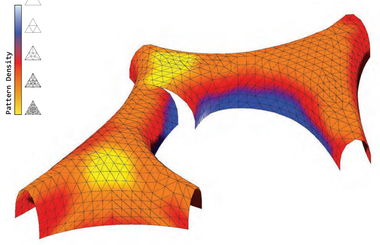
PATTERN DENSITY BASED ON SOLAR ANALYSIS



Daylight Requirements and Openness to Views.

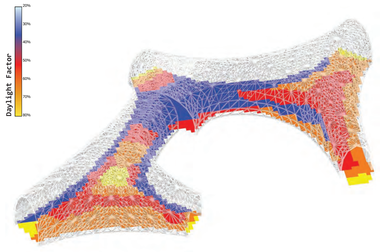


PATTERN DENSITY BASED ON PROGRAMMATIC REQUIREMENTS



FINAL PATTERN DENSITY

Based on **Average** of **Sunlight Intensity** and **Programmatic Requirements**, with **Minimum** defined by **Structural Requirements**.

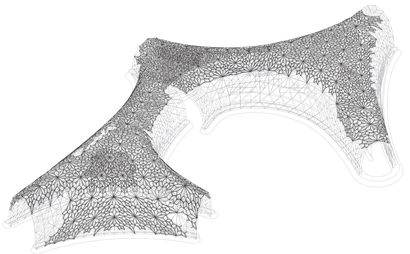


INTERIOR LIGHTING DISTRIBUTION

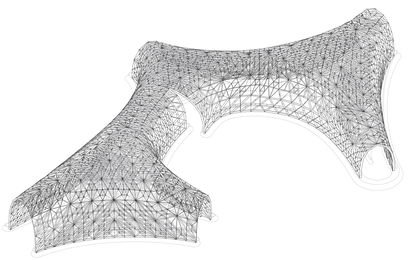
(Daylight Factor calculated in DIVA.)

The patterned skin controls the amount of daylight received by each program.

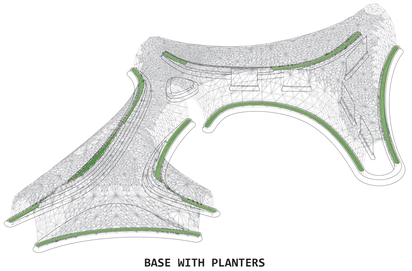
Library: Darkest, even distribution.
Expo: Brighter, even distribution. Brighter along edges due to views.
Forum: Brightest, varied distribution due to views and dark stage background.



NON-STRUCTURAL PATTERN ELEMENTS

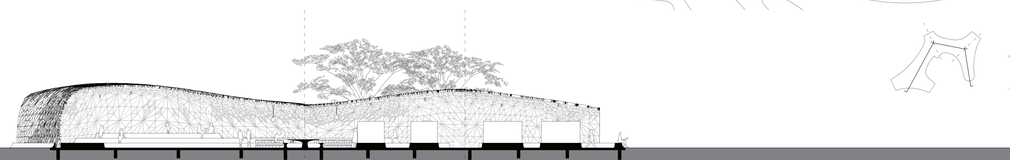


STRUCTURAL PATTERN ELEMENTS

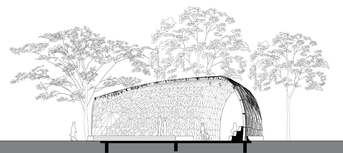


BASE WITH PLANTERS

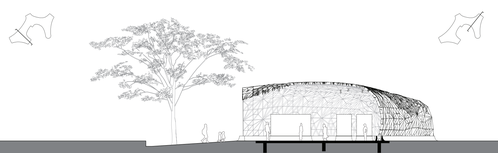
As **Furnishing** (Bleachers, Reading Table, Panel Holders) and **Foundation**.



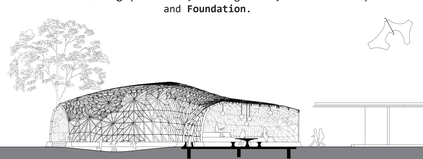
Longitudinal Section (Continuous and Unfolded) 1:200



Cross Section (Forum) 1:200



Cross Section (Expo) 1:200



Cross Section (Library) 1:200