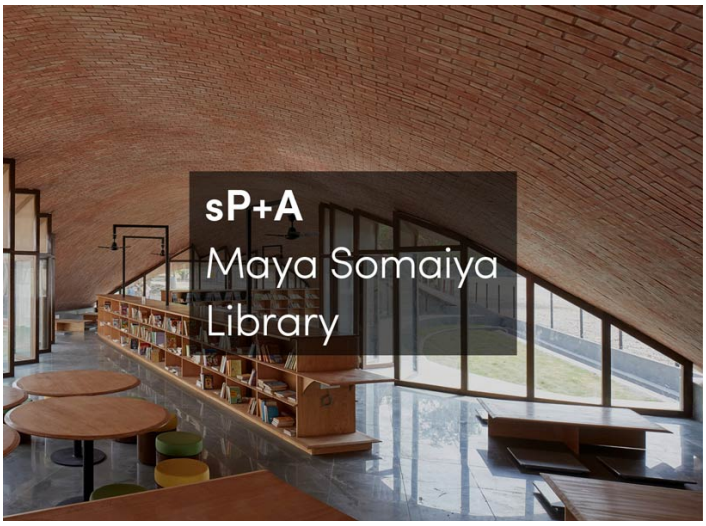

MAYA SOMAIYA LIBRARY: A PLACE TO STUDY AND PLAY

Posted on February 4, 2019 by martabuges

Categories: Middle Density, Project, sP+a, Technology and fabrication, Urban Paradigms

Tags: Children, Construction, Context, Geodesic Structure, India, Landscape, Library, Playground, Project, Rooftop, Structure, Technology, Tradition, Vault, Working Space

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The site chosen for this small addition of a children's library to a school in rural Maharashtra was a sliver between existing buildings and the school boundary, a site that almost implied a linear building footprint to adjust the program to the chosen site.Alluding to the impetus that children have towards landscape over a building, we imagined the library building to be a formal extension of the ground plane: a place inside for study and a place above for play. With the limited teaching resources available in the larger vicinity, we needed the inspiring spatial experience to be a magnet to attract students, and hopefully other residents from the nearby settlements, after school hours.

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On our first visit to the site, it was interesting to see Geodesic structures built by an engineer for a few of the school buildings. We were somewhat encouraged by this to pursue a project that followed from a construction intelligence. We hence parsed through several possible material configurations, ranging from concrete shells to brick vaults for building this 'architectural landscape'. At this point we were captivated by the material efficiencies of the Catalan tile vault from the 16th century, its use by Gustavino in the early 19th century and finally the incredible details from the work of Eladio Dieste from the mid-20th century. While working with the specific site condition, we used Rhino Vault – developed by the Block Research Group at the ETH – to articulate a pure compression form for the project.

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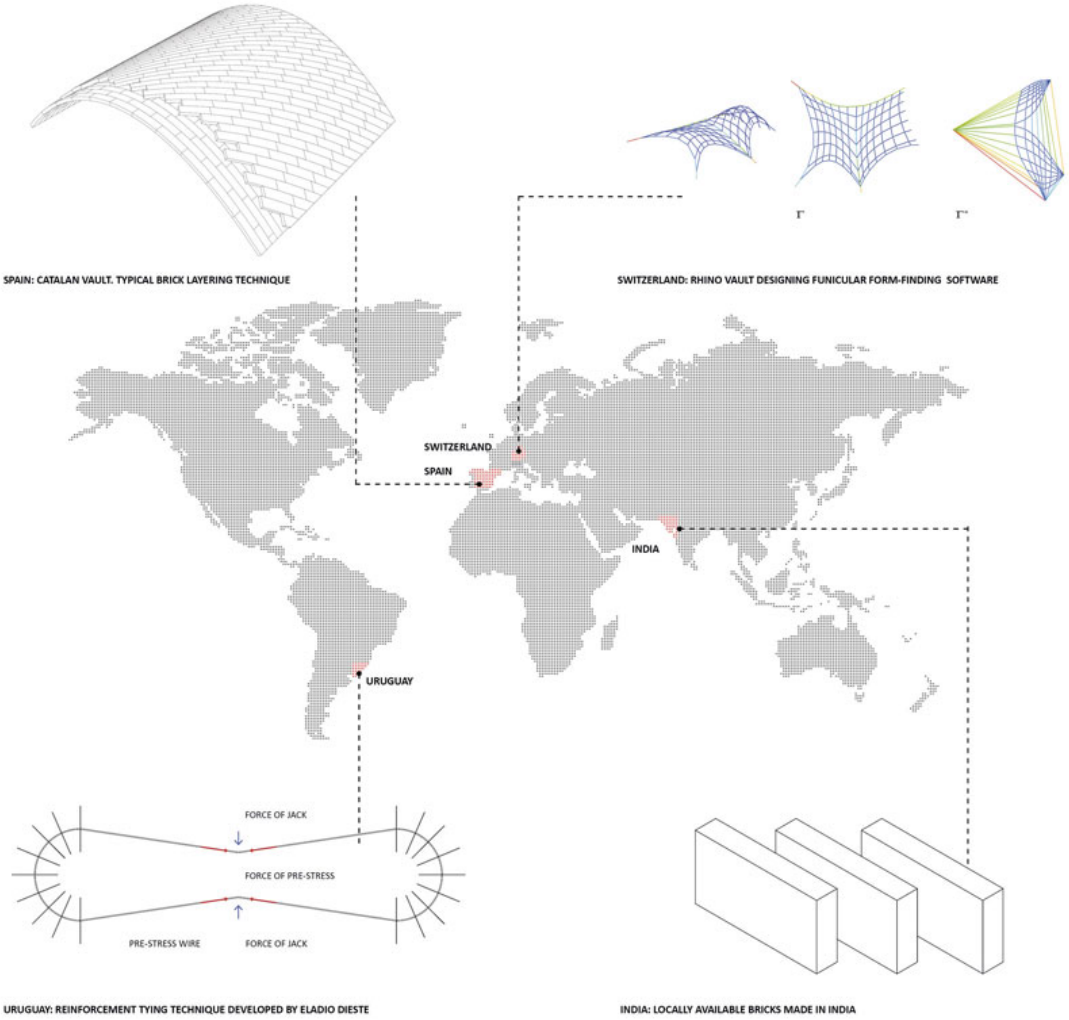

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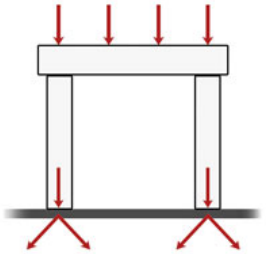
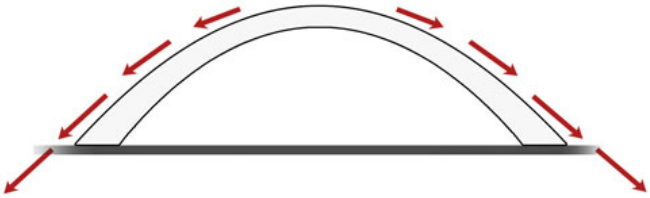
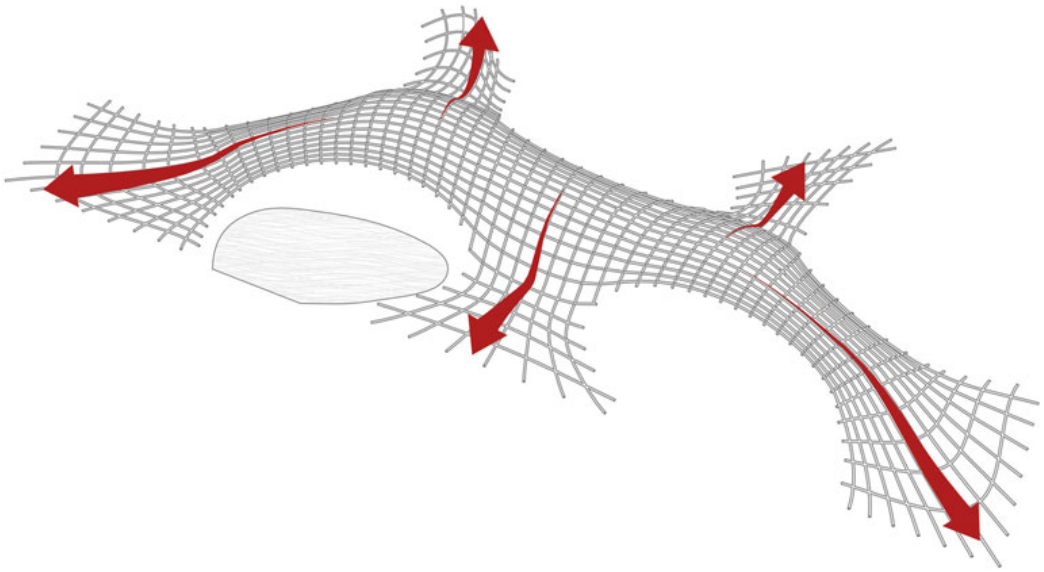


Conventional Trabeated Structure



Forces acting on a Vault



Sharda Library Force Diagram

The library lies at the intersection of a student's daily routine. It became a pavilion accessed from multiple sides, with students potentially engaging with books while traversing through the library or over it.

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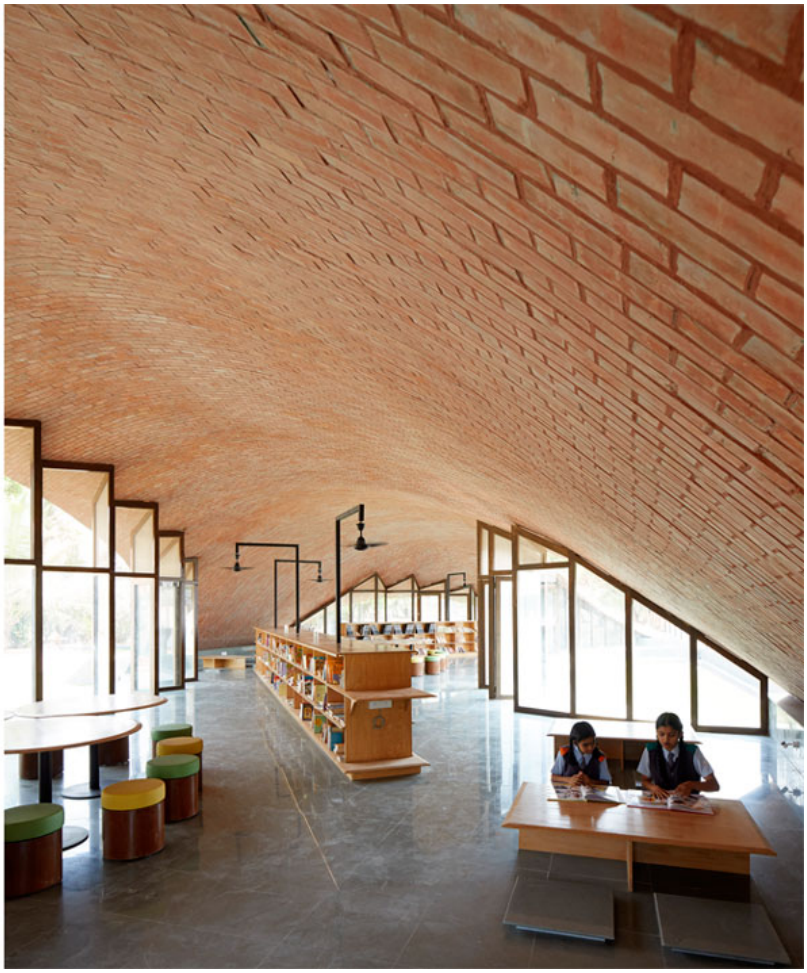

The library interior has varied spatial and seating systems: a floor stool system towards the edges for a more intimate study area and, towards the centre, tables and stools for collaborative study. The self-structured window bays are striated profiles for increased stability with economical window section sizes.

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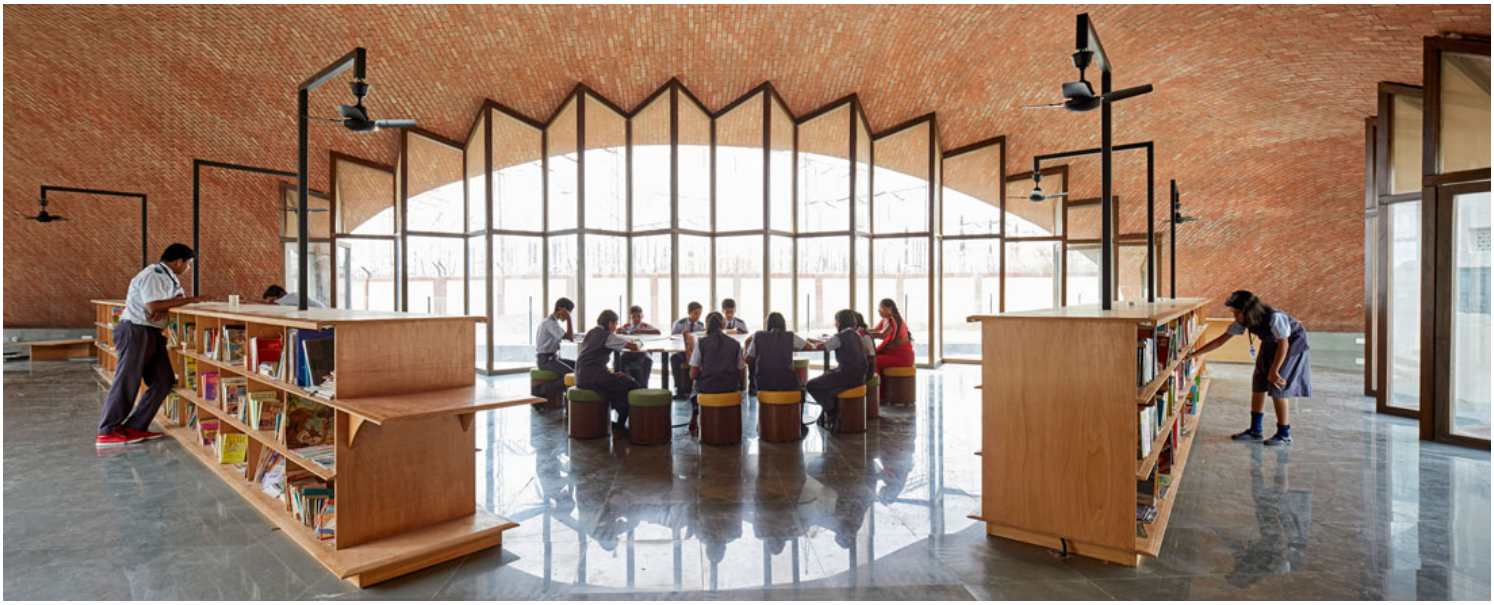

The construction technology for the project also makes a case to reexamine the age-old binaries of the global and local as being in opposition. The regional or the local within the South Asian paradigm typically manifests within strict formal constraints of the style in memory. This is often at the expense of material efficiencies.

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Our effort to search for a material and construction efficiency in brick tile looked to leverage the networks of knowledge that our practices are situated in, allowing us to enrich the regional or local sphere through the extended capacities of a global reach. In using principles ranging from the Catalan tile vaulting sytem to the compression ring detail from the work of Eladio Dieste in Uruguay, or in using a form-finding software plug-in made in Switzerland, the library is the result not only of lessons learnt from various geographic locations but also various lessons throughout history.

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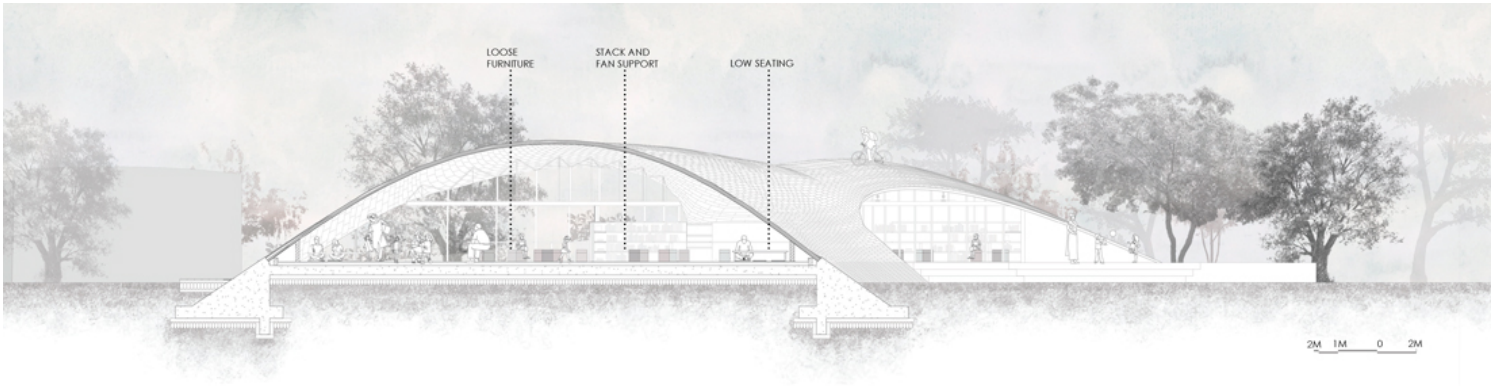

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