

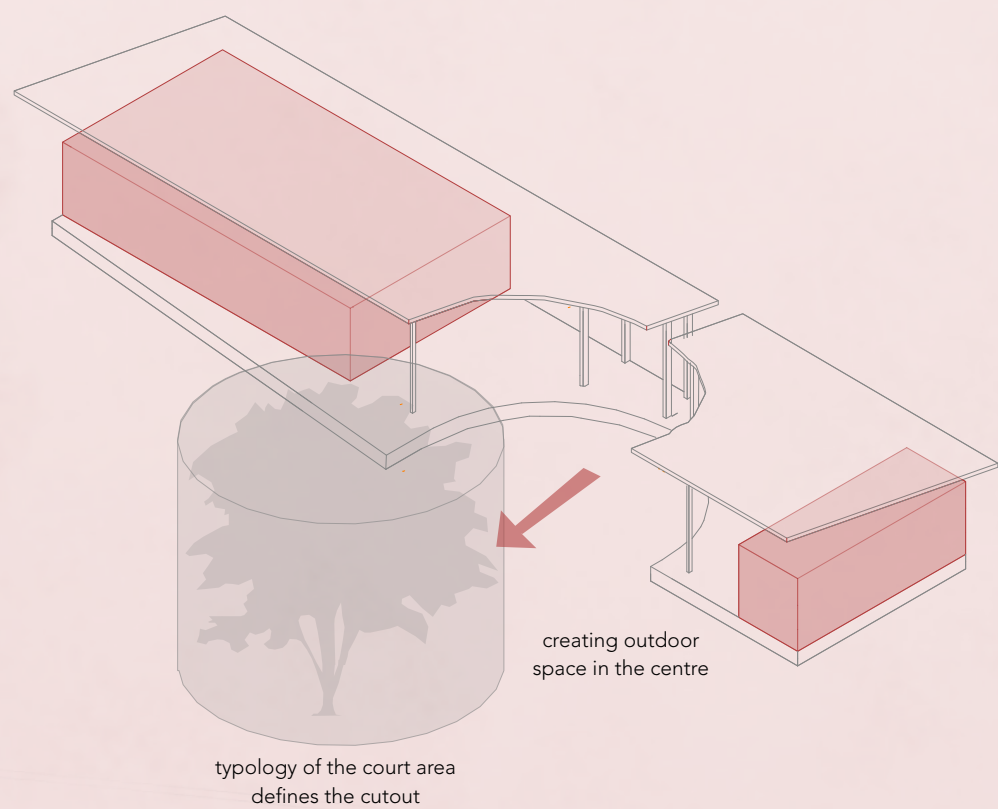
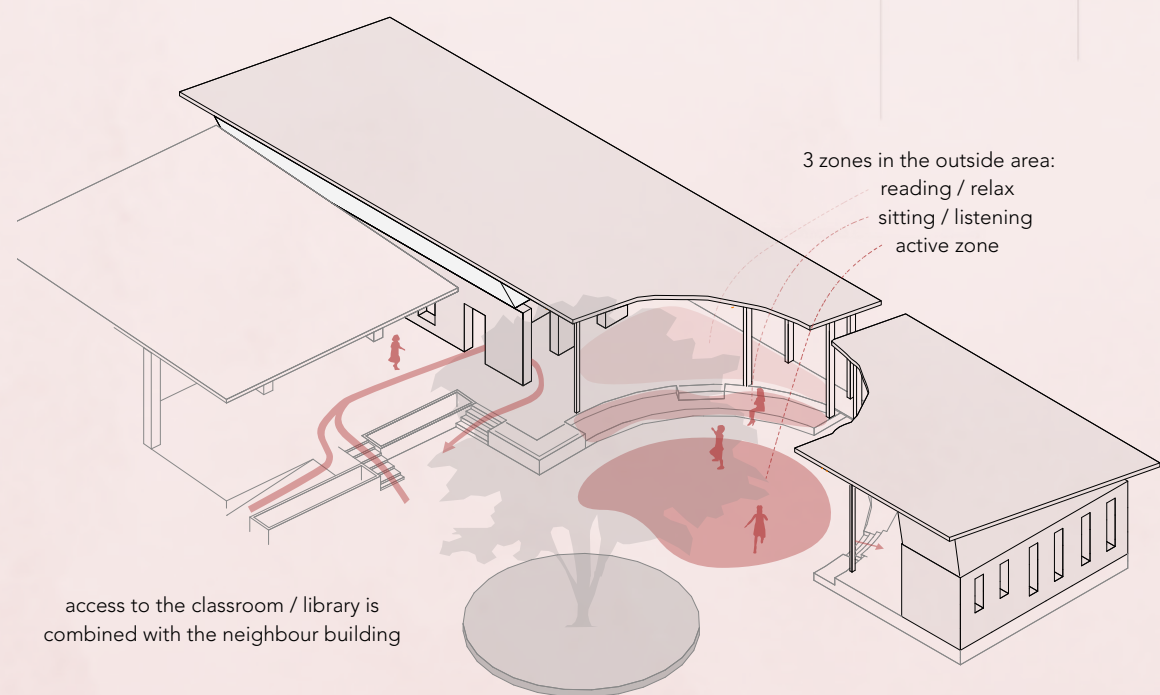
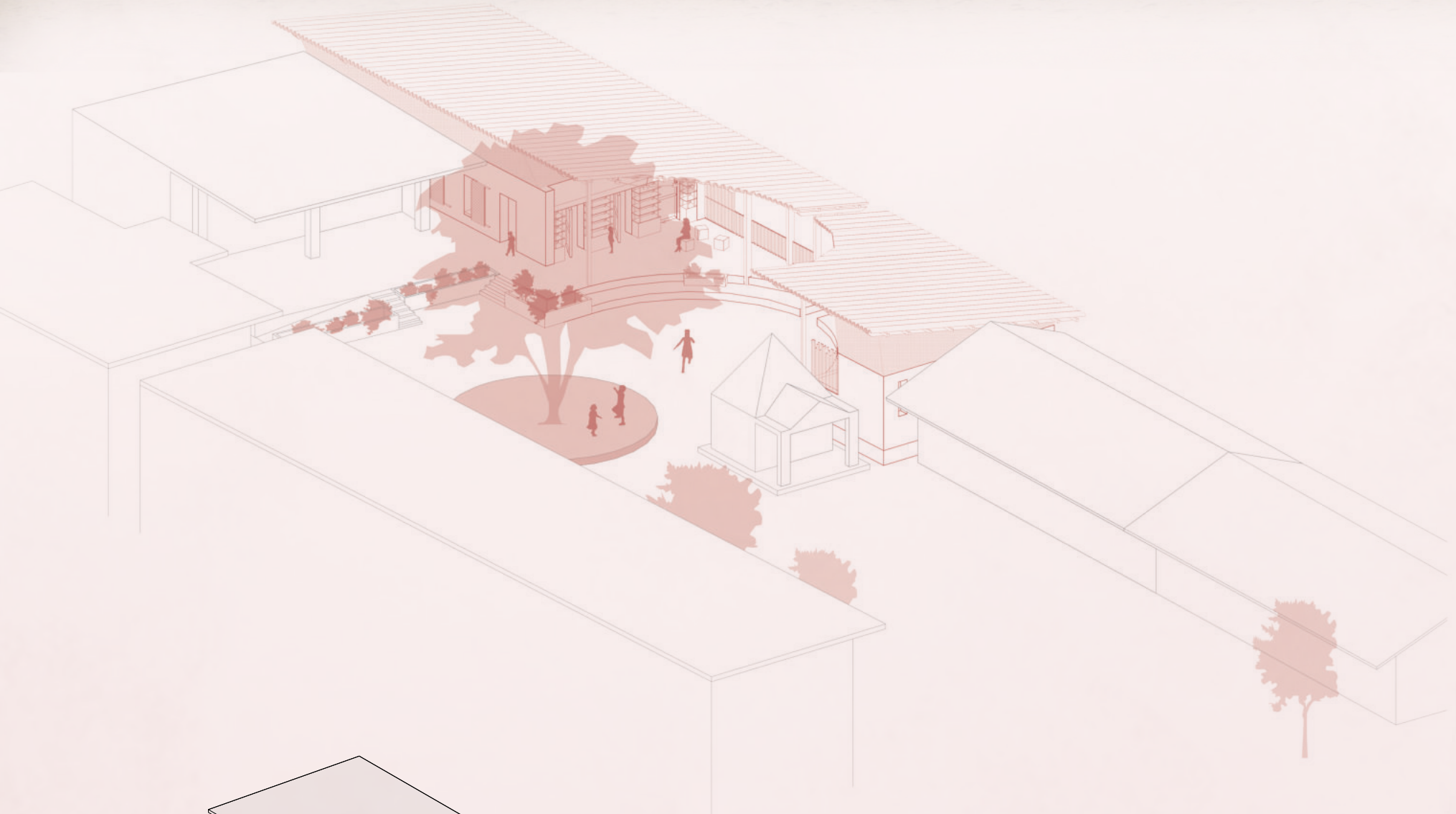
#1

"A Theater for Sharada"

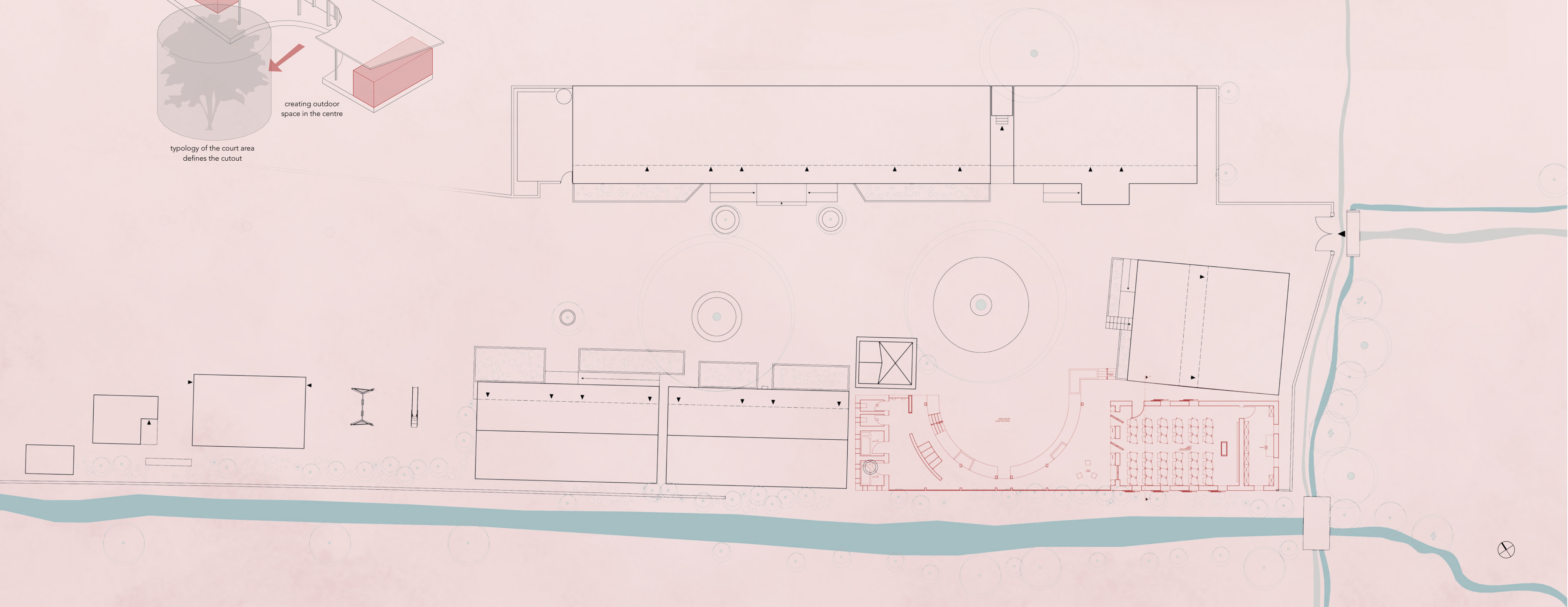


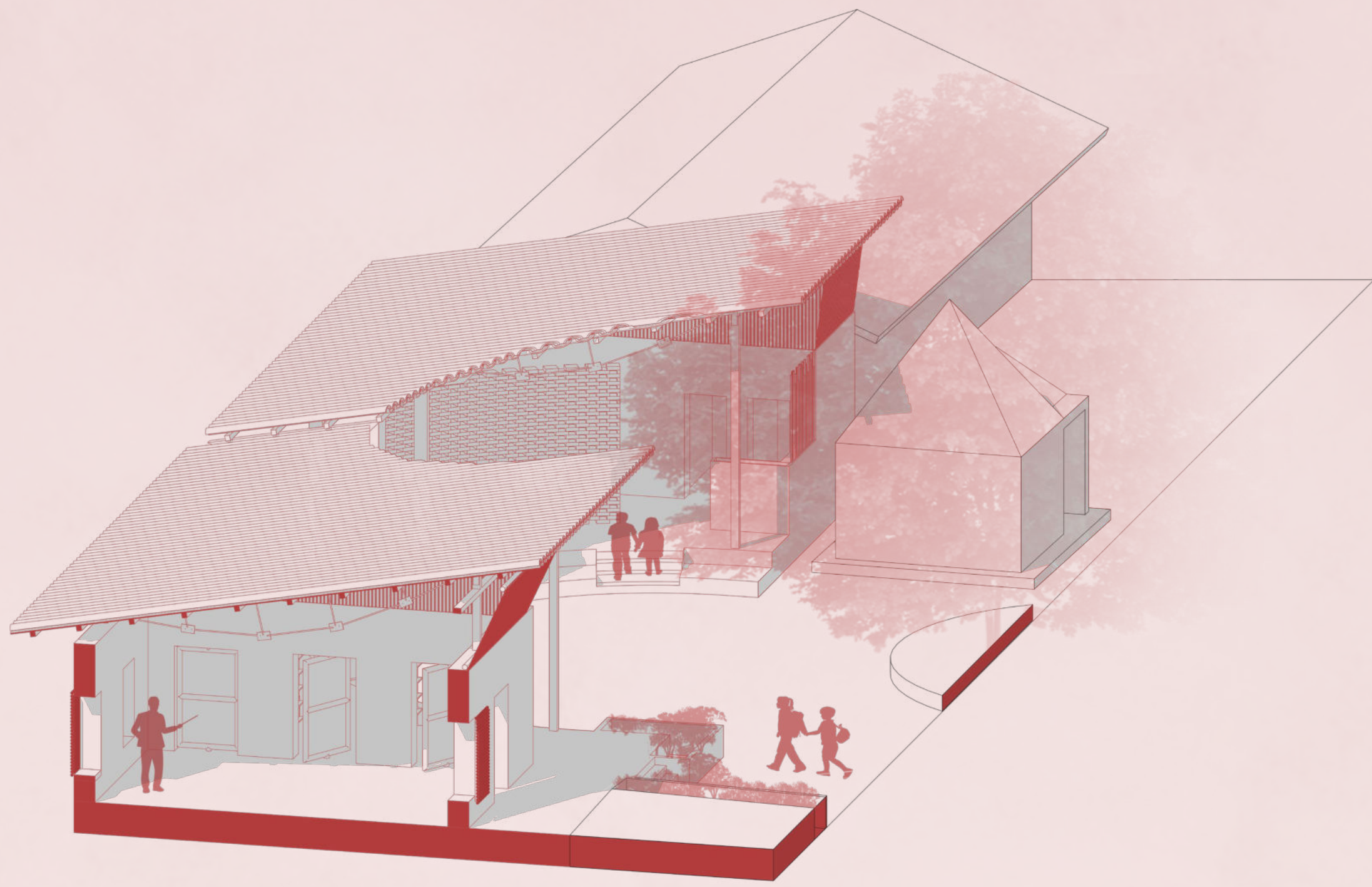


A Theater for Sharada



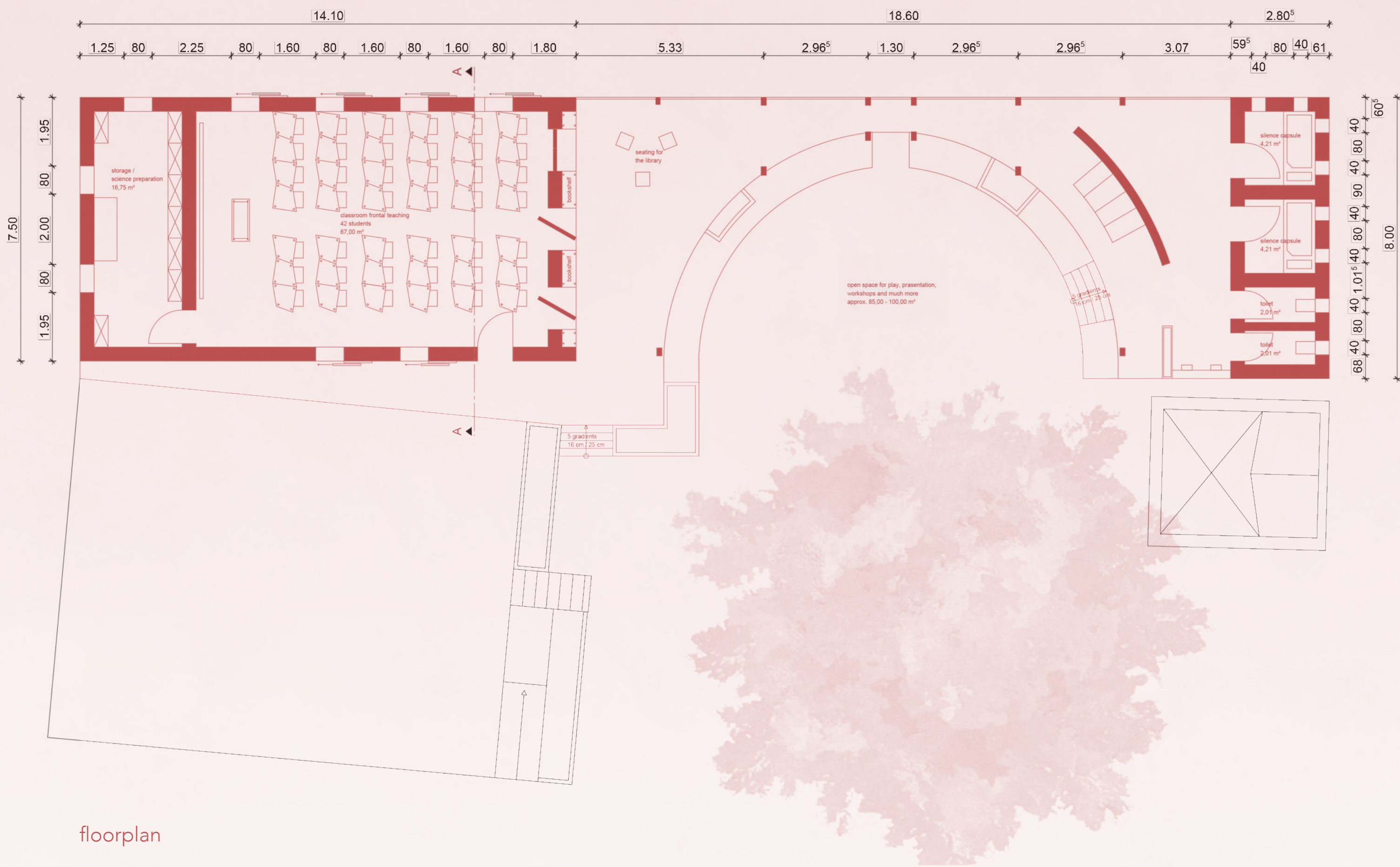
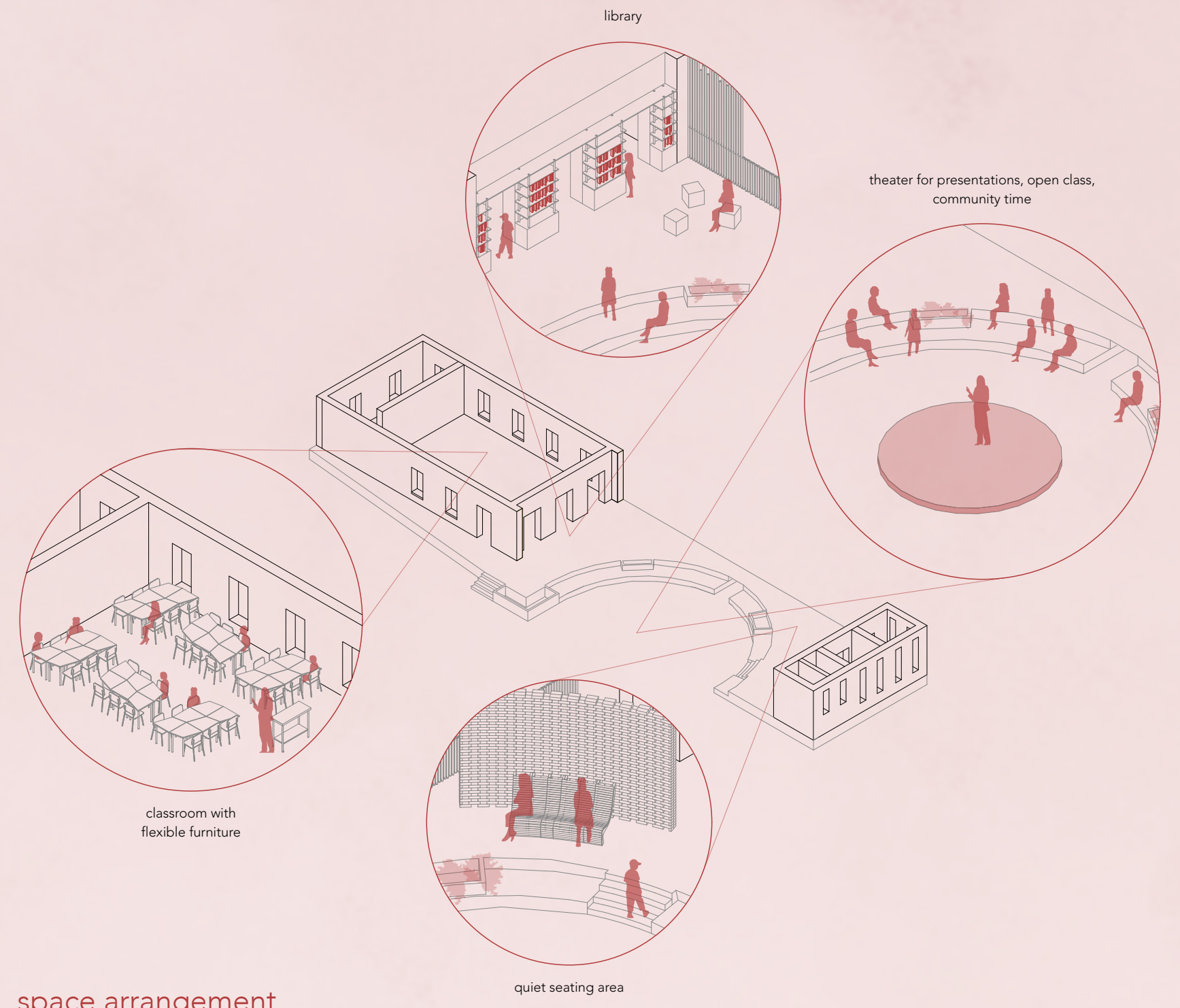
To create an open and flexible working atmosphere we decided to break up the strict structure of the existing surrounding. Therefore we wanted to create a new centre that adds on to the beautiful green schoolyard and provides plenty of room to play, have open class or an community event.



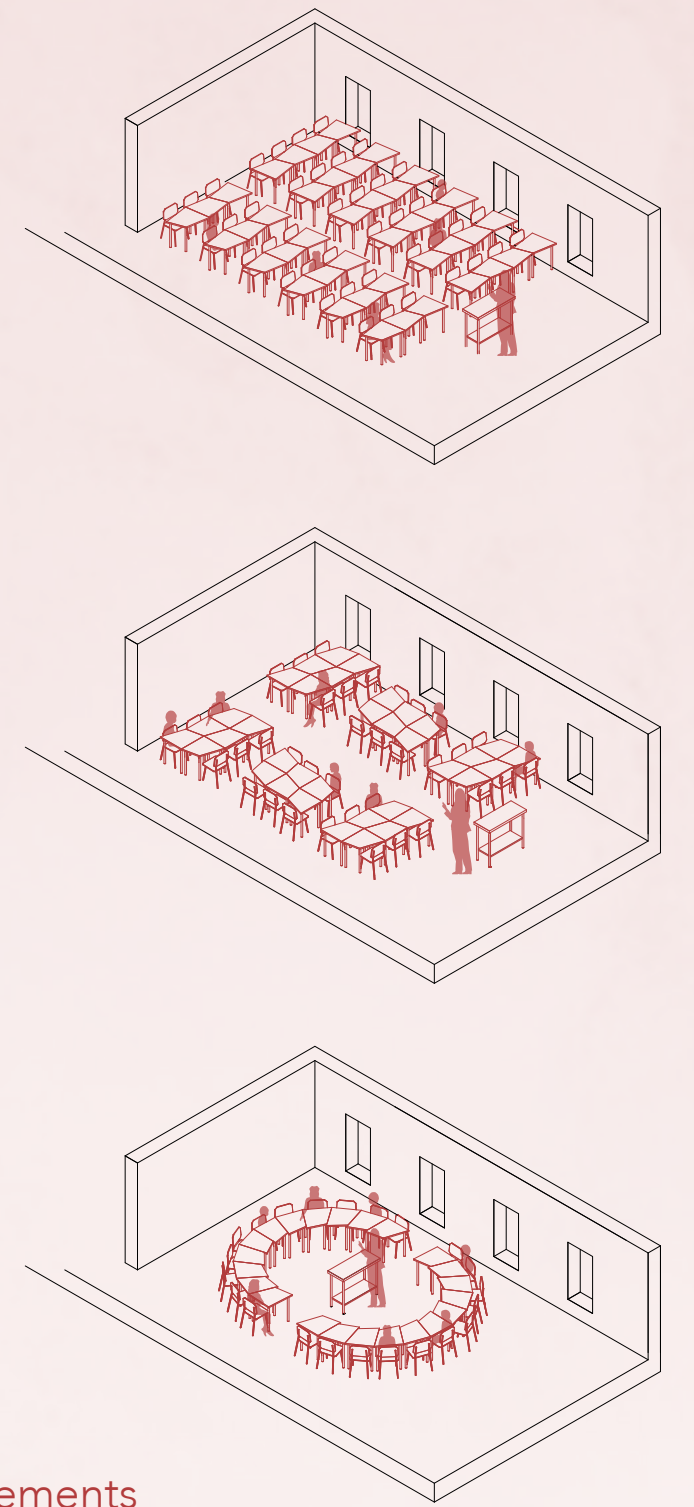


section A-A

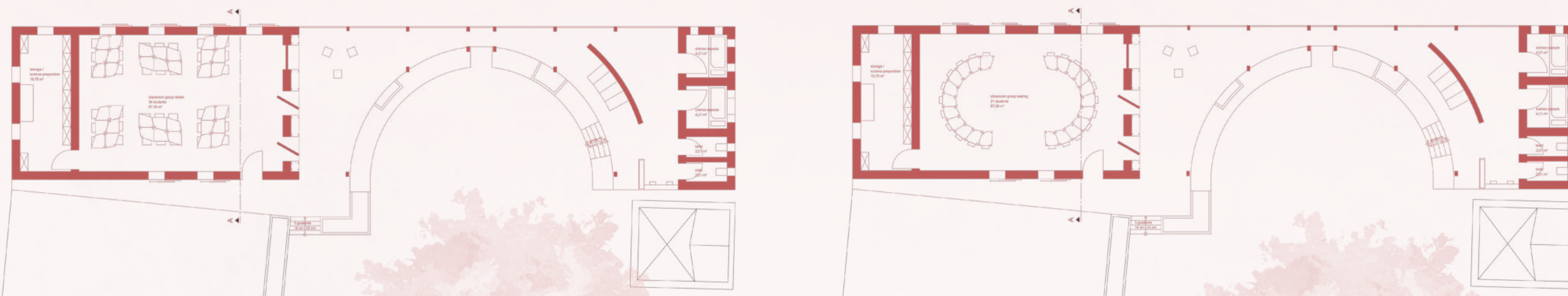
space arrangement



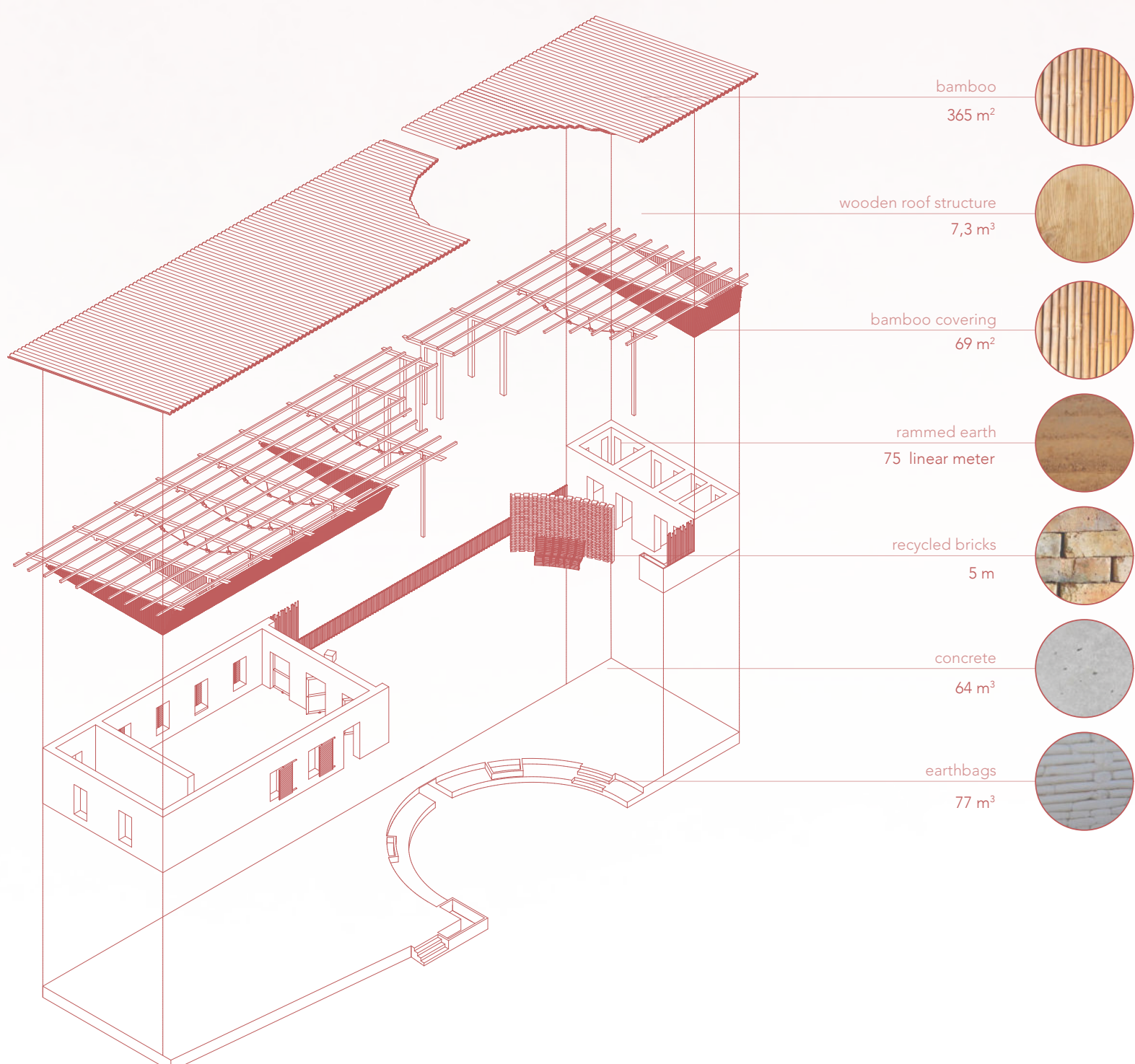
floorplan



variations of seating arrangements



The building is divided into three areas. The classroom can be used as a multifunctional learning room, it's furniture can be stored in the preparation room next door. The centre is shaped by an open theater that has plenty of room for bigger classes, presentations and play time. The quiet part of the building is located next to the temple. A reading zone adds on to the library combined by the half circle. The relaxation rooms are privately hidden behind there.



#2

"Green Oasis"

A Green Oasis

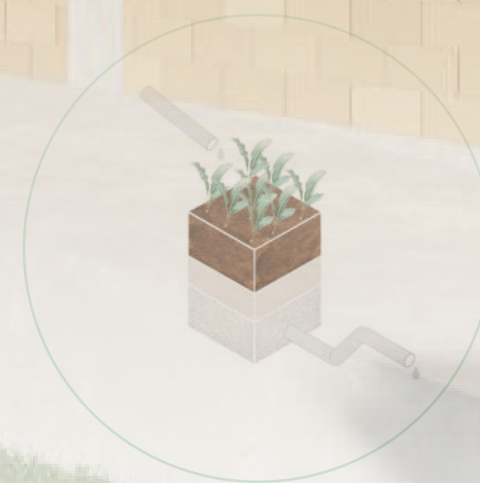
Flexible_Functional_Green

The Green Oasis is a new building complex of Shree Sharada Basic School, located in Bardya district in Nepal. Raised pathways connect the building to the other classroom facilities so they can be reached dry-footed. A semi-circular library with a small indoor garden invites to a creative space for studying and leisure. Brick walls designed with openings, assure incidence of light and fresh air flow. The multi-purpose room offers a flexible classroom setting and science lab trough trapezoid tables. Towards the eastern side, the recreation room is located to keep away noise, followed by a new toilet tract, which keeps distance to the other buidlings to assure privacy and ventilation. The outdoor area uses bamboo structures for vertical gardening and provides space for a natural grey water treatment.

0 5 10 20

Site Plan 1:200

Philipp Beck
Lucie Wagner
Oskar Nitsche



Plant-Based
Grey Water
Treatment

Vertical
Bamboo
Garden



Bamboo
Raised Bed
Garden

Science Classroom
600ft² 56m²

Storage Room
65ft² 6m²

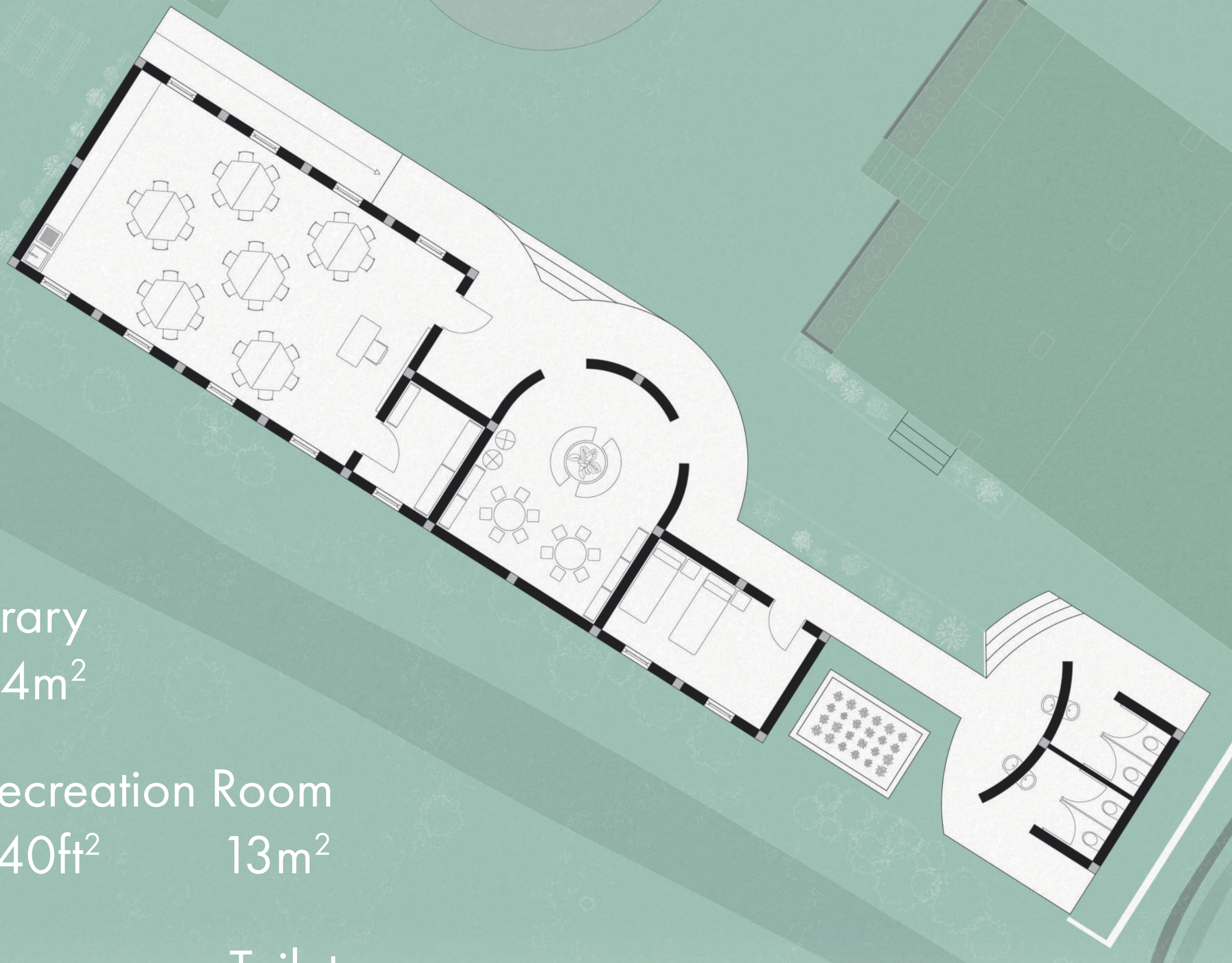
Open Space Library
260ft² 24m²

Recreation Room
140ft² 13m²

Toilets
86ft² 8m²

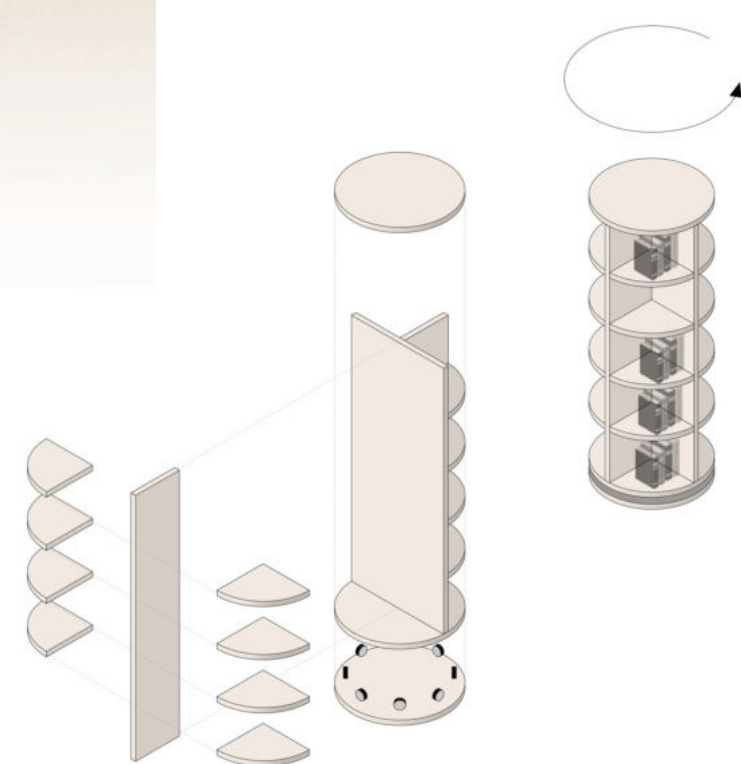


Floor Plan 1:100





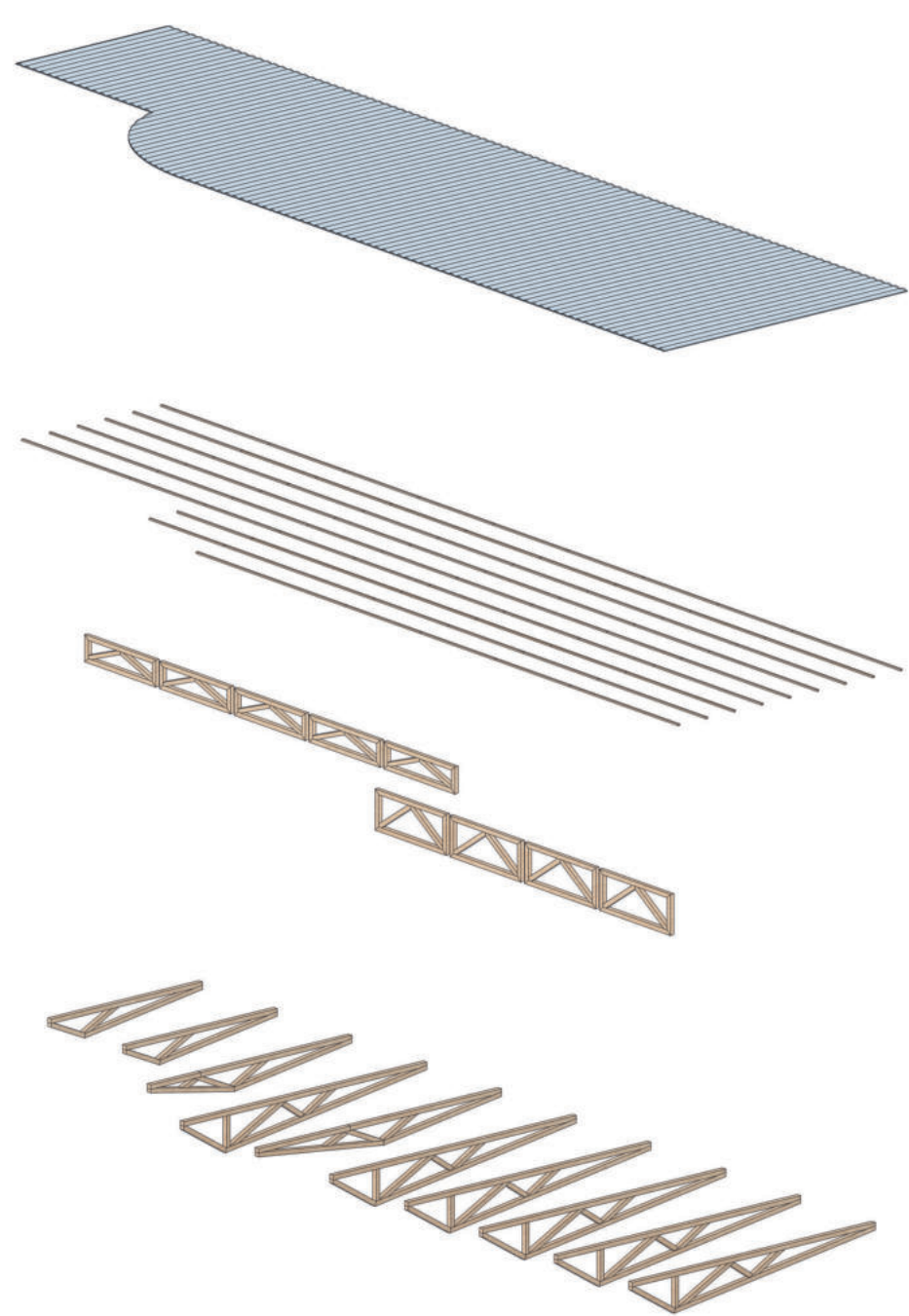
Elevation 1:100



Flexible Rotating Book Shelves

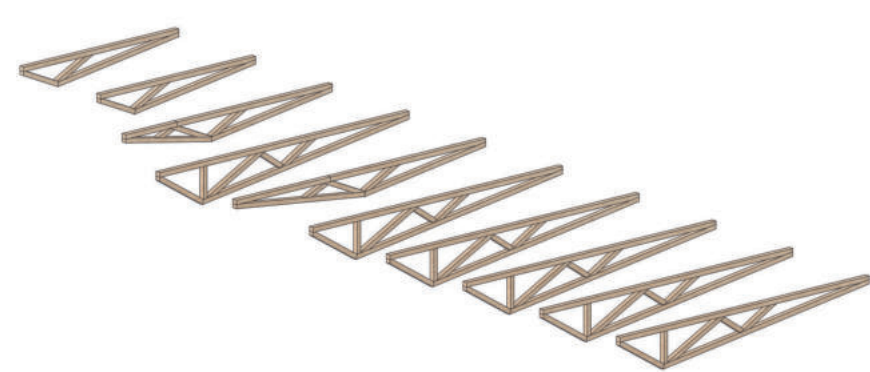


Section 1:100

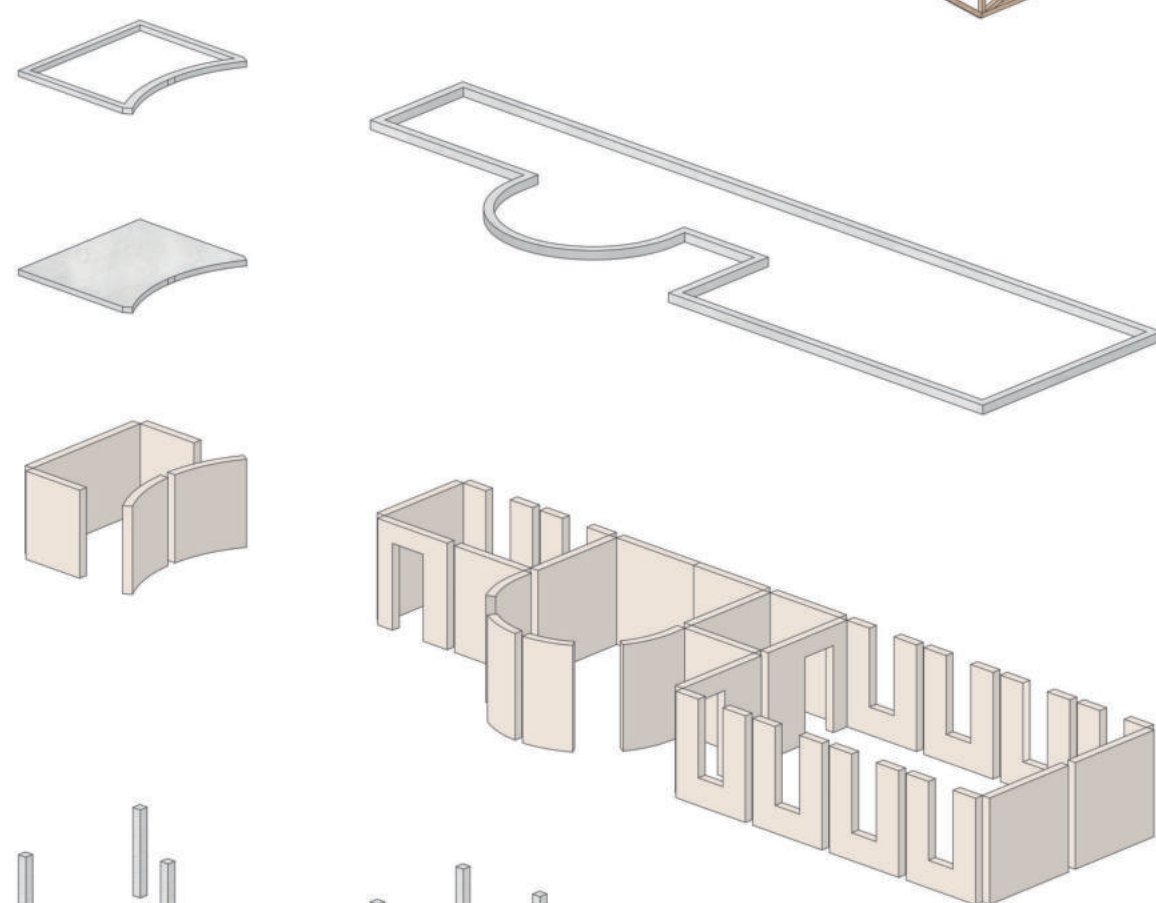


Metall Sheet Roof

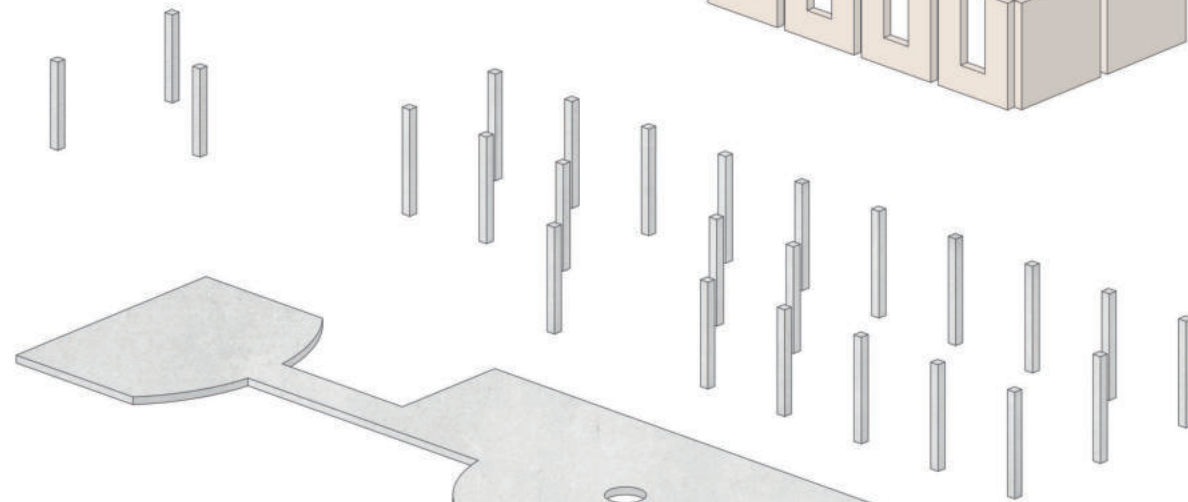
Load-Bearing Construction



Peripheral Tie Beam



Stabalized Earth Bricks



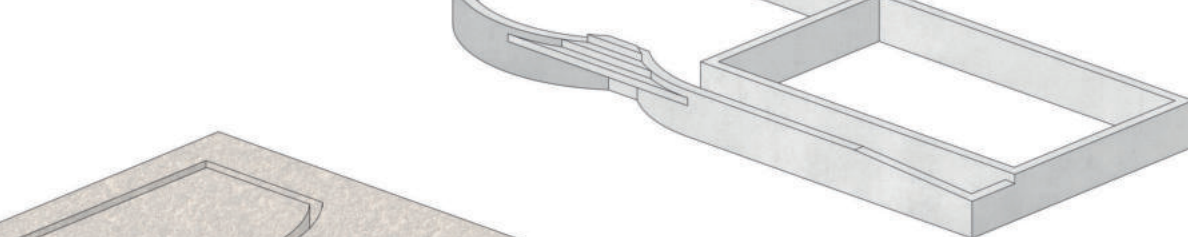
Concrete Skeleton



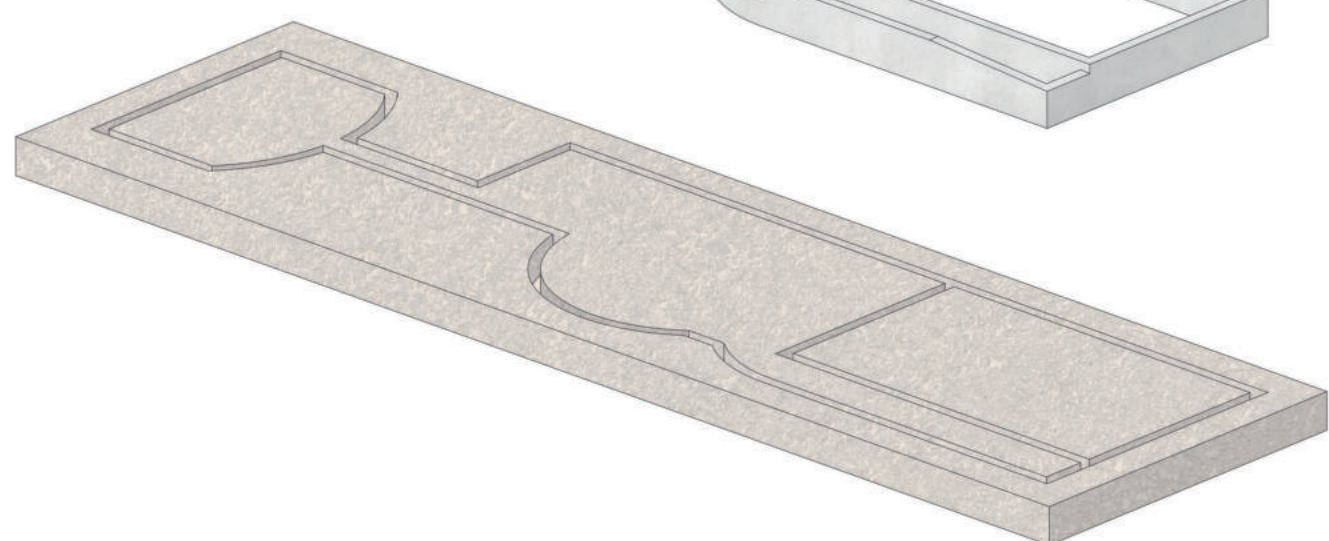
Floor Foundation



River Stone Filling



Strip Foundation



Preperations



#3

"Sharada school"



Sharada school building in Nepal

Our concept revolves around maximizing the available space for functionality and diverse activities. The division into two structures yields several advantages:

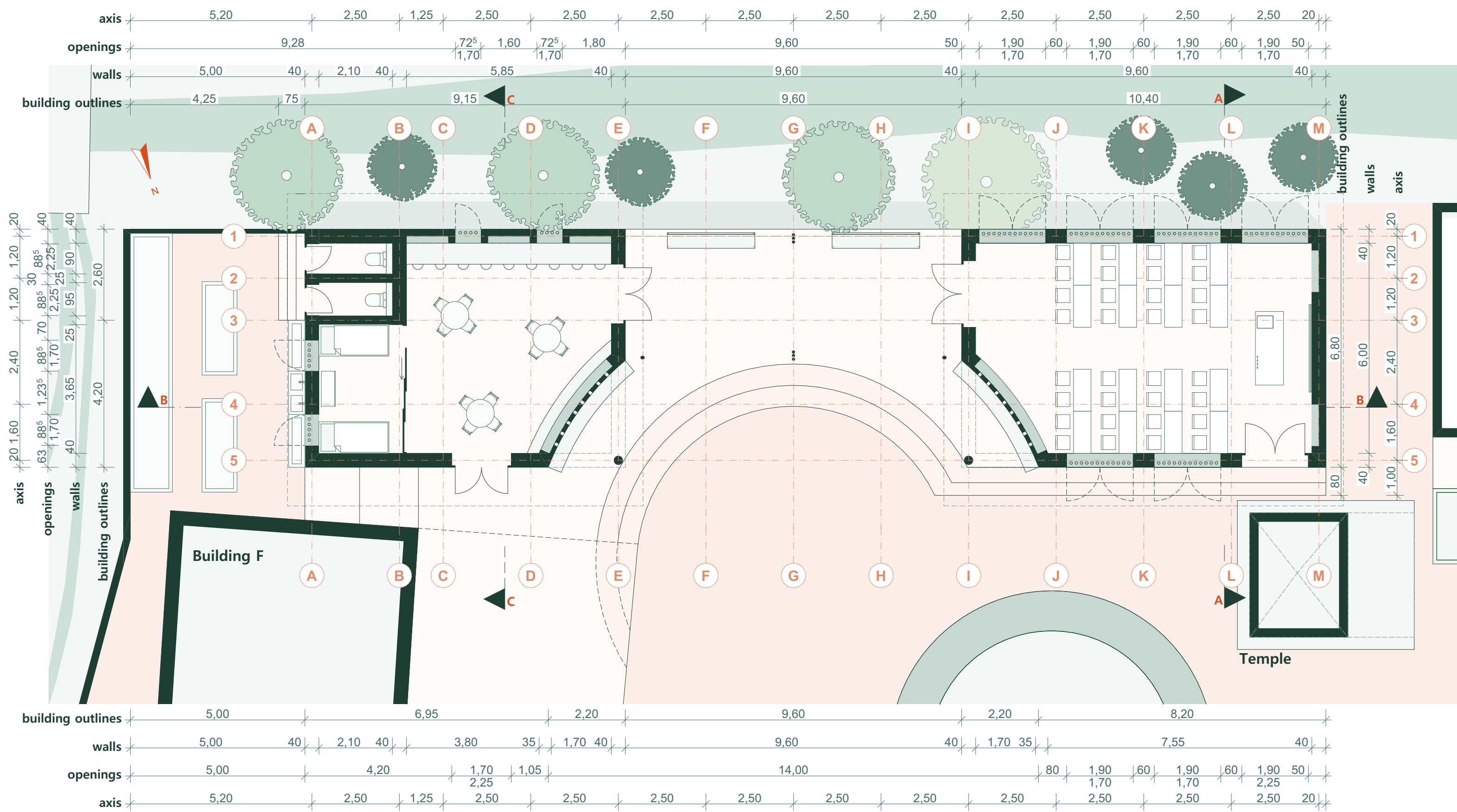
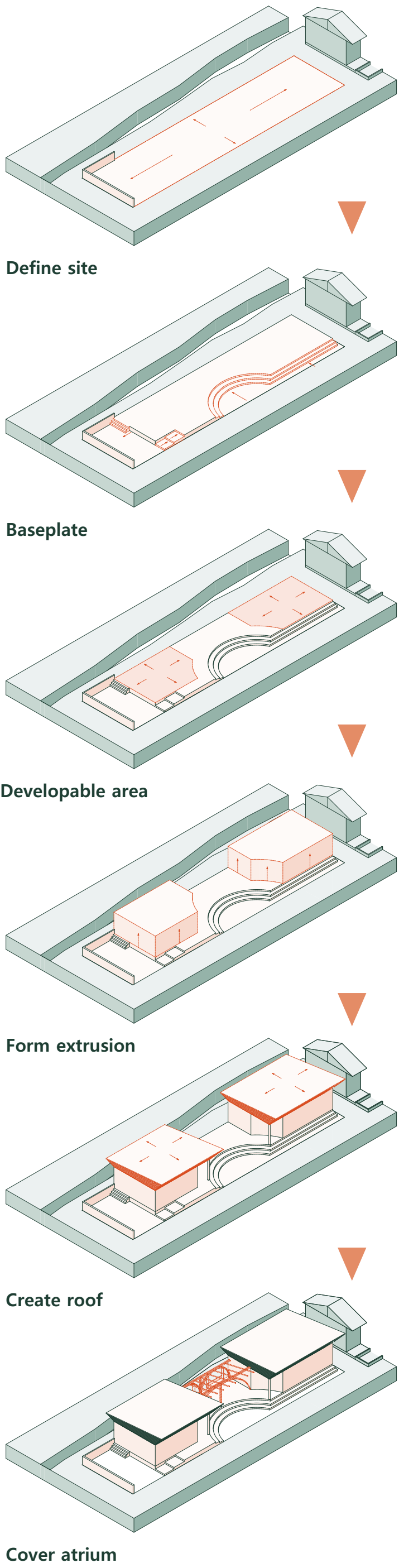
- Segregation of the garden, reading and relaxation room, open atrium, and multifunctional room enhances functionality
- Allocating different functions to distinct locations maximizes their effectiveness
- Creation of open spaces ensures good airflow and facilitates easier handling of large classes
- The two structures form an open atrium, serving multiple purposes and utilizing all available space

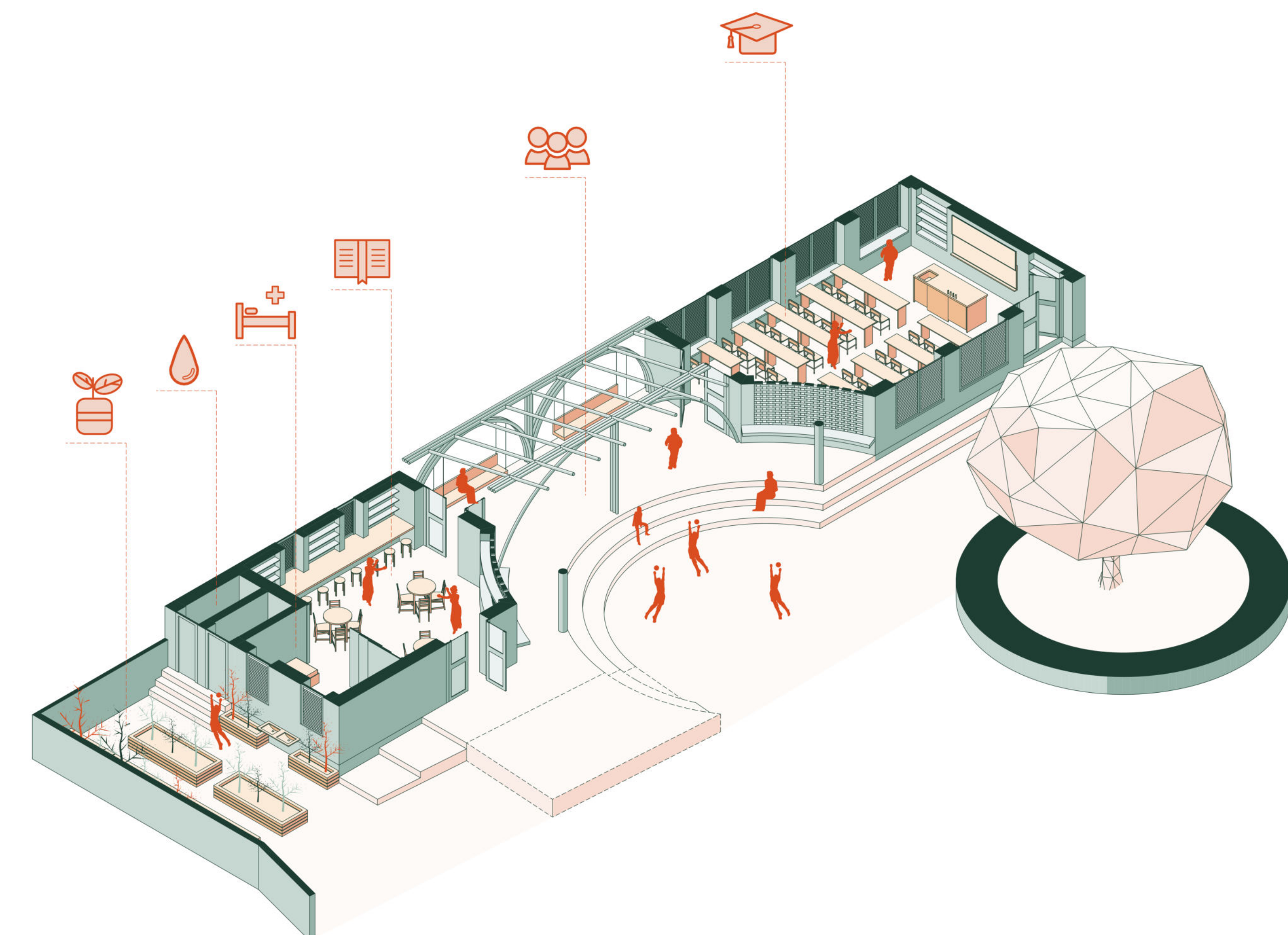
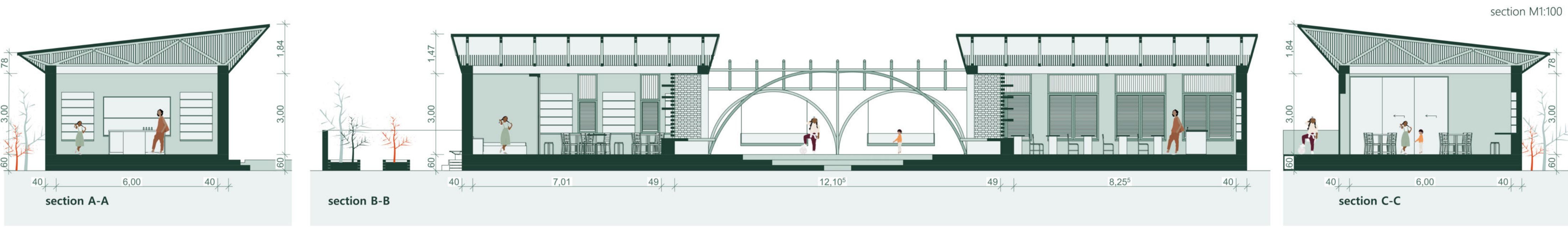
- A versatile environment for students is established, encompassing frontal teaching, practical science experiments, presentations, discussions in the atrium, group work, reading, and relaxation in dedicated spaces

The new space will provide the students with interactive classes practical education

The building structures are strategically arranged to provide a natural flow throughout the space, ensuring maximal usability and functionality. To accommodate larger classes, teachers can flexibly organize students into study groups, optimizing the use of space

The open atrium features seating arrangements for large groups, creating a convenient space for break times and after-school events, enhancing the overall functionality and appeal of the environment





Material choices and construction

With a focus on longevity and safety, our material choices for the structure aim to create a comfortable and secure environment for your students. A robust cement foundation forms the base, while thick brick walls between the columns shield students from the heat. All the materials were chosen to provide the community with a long lived structure without maintenance for an extended period.

In consideration of hot summer months, the design incorporates large windows and openings throughout, maximizing airflow and natural lighting. To combat heat, we plan to use insulating clay bricks for thick walls, creating a cool environment conducive to studying.

A sloped roof towards the creek will direct excess rainwater away from the property and simultaneously provide the maximum amount off shade for the yard. We also want to capture as much rainwater as possible to feed the garden and the flushing toilets.

The building's design facilitates a fast and effective construction process, enabling multiple crews to work concurrently, maximizing the limited time available. Our ultimate vision is to create a space that your students will genuinely enjoy studying in.

Material

- 1 Streifenfundament - Stahlbeton
- 2 Erdreich
- 3 Sockel - Betonschalungsstein (mit Ringeisen verstärkt und mit Beton gefüllt)
- 4 Schüttung - verdichtet (dient als Untergrund für Bodenplatte)
- 5 Bodenplatte - Ortbeton (in Abschnitten gegossen)
- 6 Stahlbeton-Stützen - mit Streifenfundament und Ringanker verbunden (durch Mauerwerk eingeschalt)
- 7 Mauerwerk - selbstgepresste Lehmziegel (außen zum Witterungsschutz verputzt)
- 8 Ringanker - auf herausragende Stützeisen gegossen (dient als Auflager für Dachstuhl) Stahlbeton
- 9 Dachstuhl - Stahlprofile verschraubt
- 9 Dachhaut - Dachziegel

Menge

- 1 Streifenfundament: Beton 27m³, Verhältnis 1/4 Sand/Kies: 50t, Zement: 12,4t, Bewehrungsseisen: 112m x 4Stück = 448m
- 2 Erdreich -27m²
- 3 Sockel: Steine 448 Stück: 0,5mx0,365x0,25m, Betonfüllung: 15,3m³, Bewehrungsseisen: 112m x 4Stück = 448m
- 4 Schüttung: 25m x 6m x 0,6m = 90m³
- 5 Bodenplatte: 177m² x 0,1m = 17,5m³, Bewehrungsmatten: 177m²
- 6 Stahlbeton-Stützen: 20 Stück, Bewehrungskoffer: 20 Stück
- 7 Mauerwerk: 51m³, 1m³ = ca. 394 Ziegel (71mm,115mm,240mm), 394 Ziegel/m³ x 51m³ = 20.000 Ziegel DF
- 8 Ringanker: 66m x 0,365m x 0,30m = 7,22m³
- 9 Dachstuhl: Rahmen: 4cm x 4cm Kanntstahl 30m/Rahmen x 17St. = ca. 510m, Dachlatten: 15mm x 15mm 40 St. x 10 m = 400m
- 9 Dachhaut: ca. 2500 Dachziegel, Menge variiert je Maß

Preis

- 1 Sand/Kies: (2300/5) x 4 = 1840kg, ca. 25Euro/m³ x 27m³ = ca. 675Euro, Zement: (2300/5) x 1 = 460kg = 18,4 Sack zu 25 kg, 52Euro/m³ x 27m³ = 1404 Euro, Bewehrungsseisen: 448m x 1Euro/m = 448 Euro
- 2 Blut, Schweiß, Tränen oder Bagger
- 3 Steine: 5,25Euro/St. x 448 St. = ca. 2350 Euro, Betonfüllung: (15,3m³) Sand/Kies: 25Euro/m³ x 15,3m³ = 382 Euro, Zement: 52Euro/m³ x 15,3m³ = 800 Euro, Bewehrungsseisen: 448m x 1Euro/m = 448 Euro
- 4 Schüttung: 90m³ x 25Euro/m³ = 2250 Euro
- 5 Bodenplatte: Sand/Kies: 25Euro/m³ x 17,5m³ = 437 Euro, Zement: 52Euro/m³ x 17,5m³ = 910 Euro, Bewehrungsmatten: 177m² x 5Euro/m² = 885 Euro
- 6 Stahlbeton-Stützen: 0,25m x 0,25 m x 3m x 20 St. = 3,75m³, Sand/Kies: 25Euro/m³ x 3,75m³ = 100 Euro, Zement: 52Euro/m³ x 3,75m³ = 195 Euro, Bewehrungskorb: 20St. x 3m x 4 Eisen = 240m Bewehrungsseisen x 1Euro/m = 240Euro
- 7 Mauerwerk: 20.000 Ziegel DF x 0,12 Euro/Ziegel = 2400 Euro, mögliche Einsparungen durch Ziegelpressmaschine, mögliche Einsparungen durch recyceln
- 8 Ringanker: Sand/Kies: 25Euro/m³ x 7,22m³ = 180 Euro, Zement: 52Euro/m³ x 7,22m³ = 375 Euro, Bewehrungskorb: 66m x 6 Eisen = 396m Bewehrungsseisen x 1Euro/m = 396 Euro
- 9 Dachstuhl: Rahmen: 510m x 6,5Euro/m = 3300 Euro, Dachlatten: 400m x 1,96Euro/m = 784 Euro
- 9 Dachhaut: 2500 Dachziegel x 0,7Euro/Ziegel = 1750 Euro

- 1 2.527 Euro
- 2 Blut, Schweiß, Tränen oder Bagger
- 3 3.980 Euro
- 4 2.250 Euro
- 5 2.232 Euro
- 6 535 Euro
- 7 2.400 Euro
- 8 951 Euro
- 9 4.084 Euro
- 9 1.750 Euro

