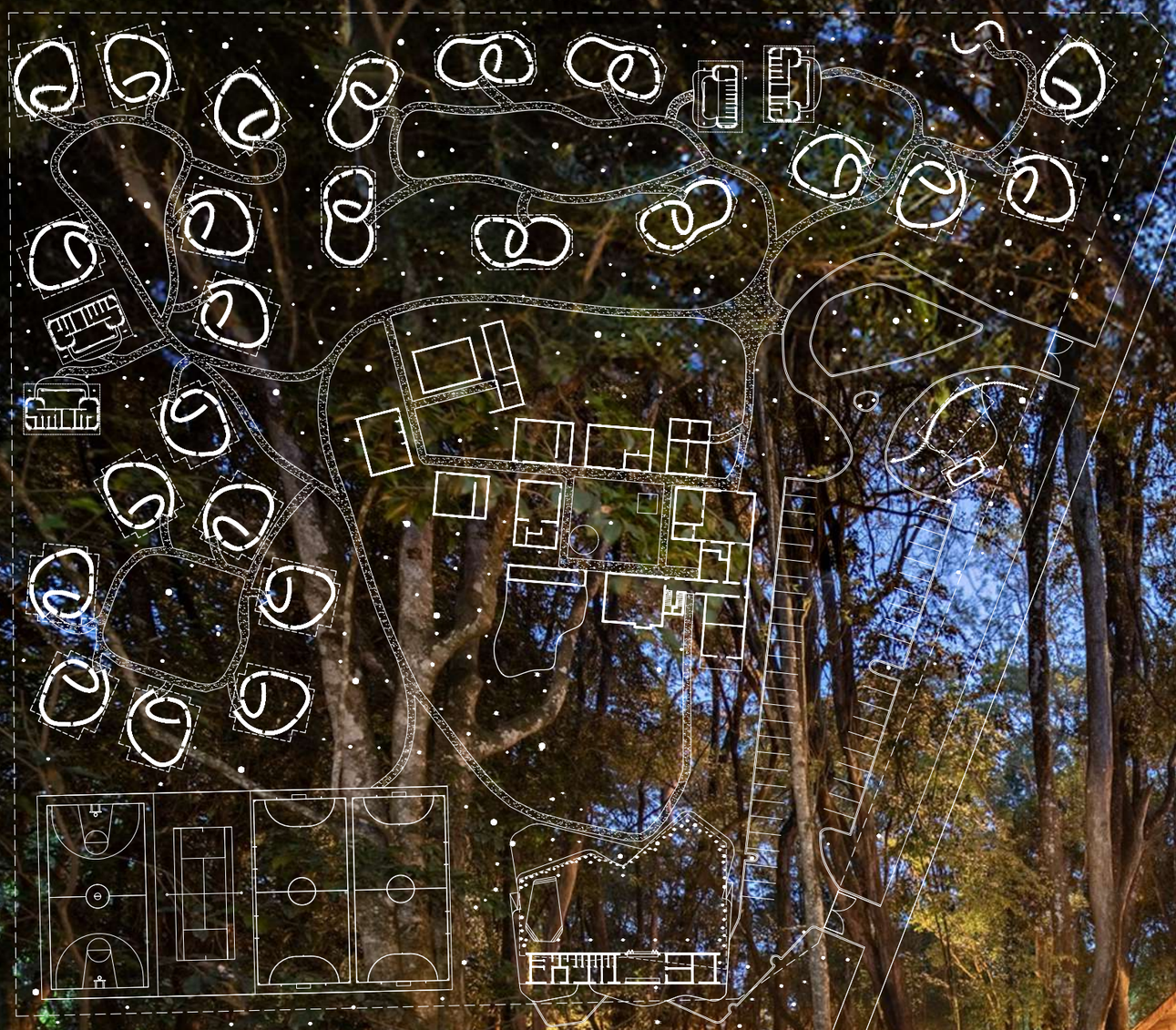
NAIROBI WALDORF SCHOOL

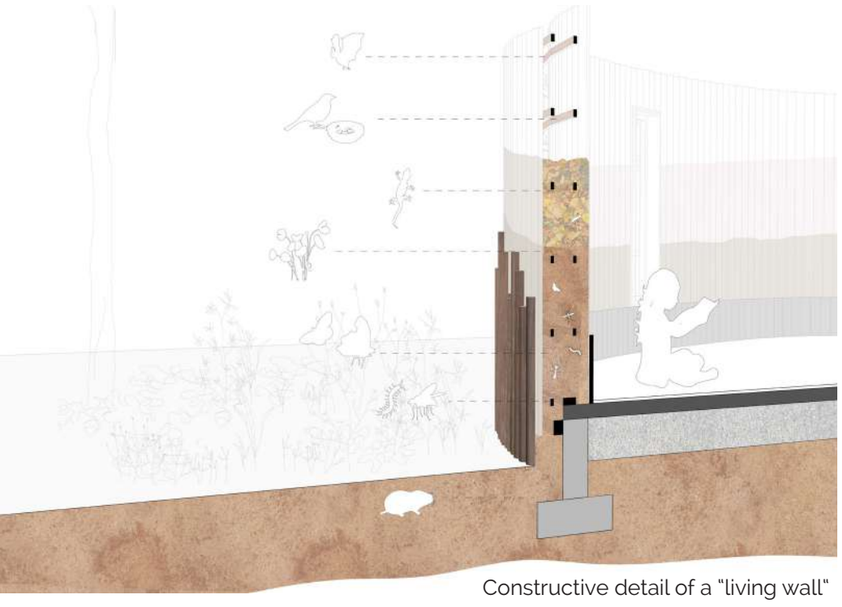
The concept was to create a small village for children, located in the forest, preserving the existing old house on the site to be used as additional classrooms and services. The land was a forest rich in native tree species, and the goal was to integrate the school harmoniously into the natural environment. To achieve this, the classrooms were designed as a scattered village, strategically located in clearings of the forest. The classrooms have soft, organic shapes, with a spiral configuration, inspired by Maasai manyattas and other vernacular architectures of Kenya.



Location plan.

Maasai manyattas floor plans

Exterior view of the classrooms in the forest



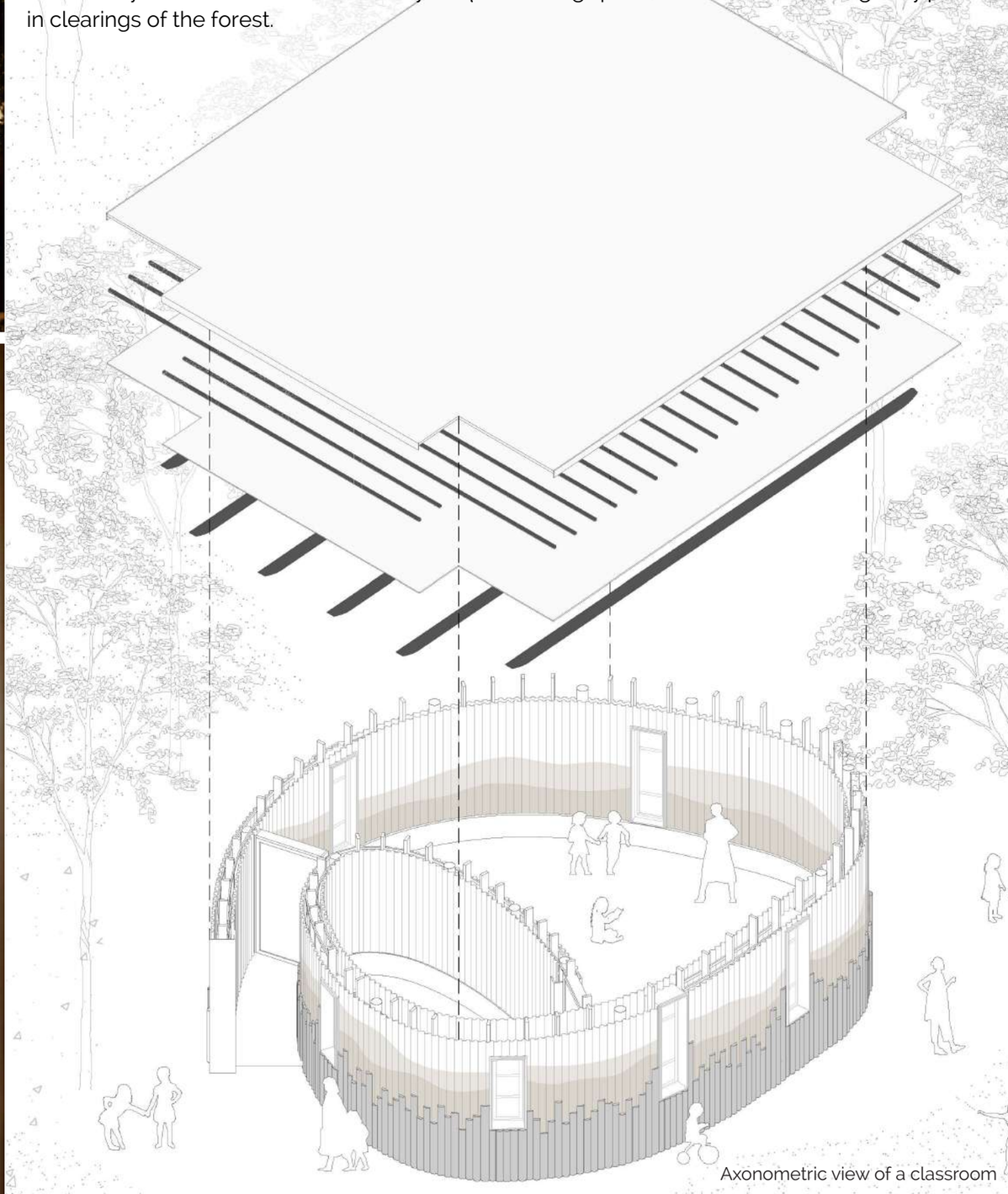
Constructive detail of a "living wall"

Detail of "living wall"

LIVING WALLS

The construction system was designed to be adaptable and collaborative, involving children, parents, and teachers in filling the walls. Whenever possible, materials from dismantled classrooms of the previous school were recycled. This approach combined creativity, sustainability, and community involvement to create a truly unique learning space, scattered and strategically placed in clearings of the forest.

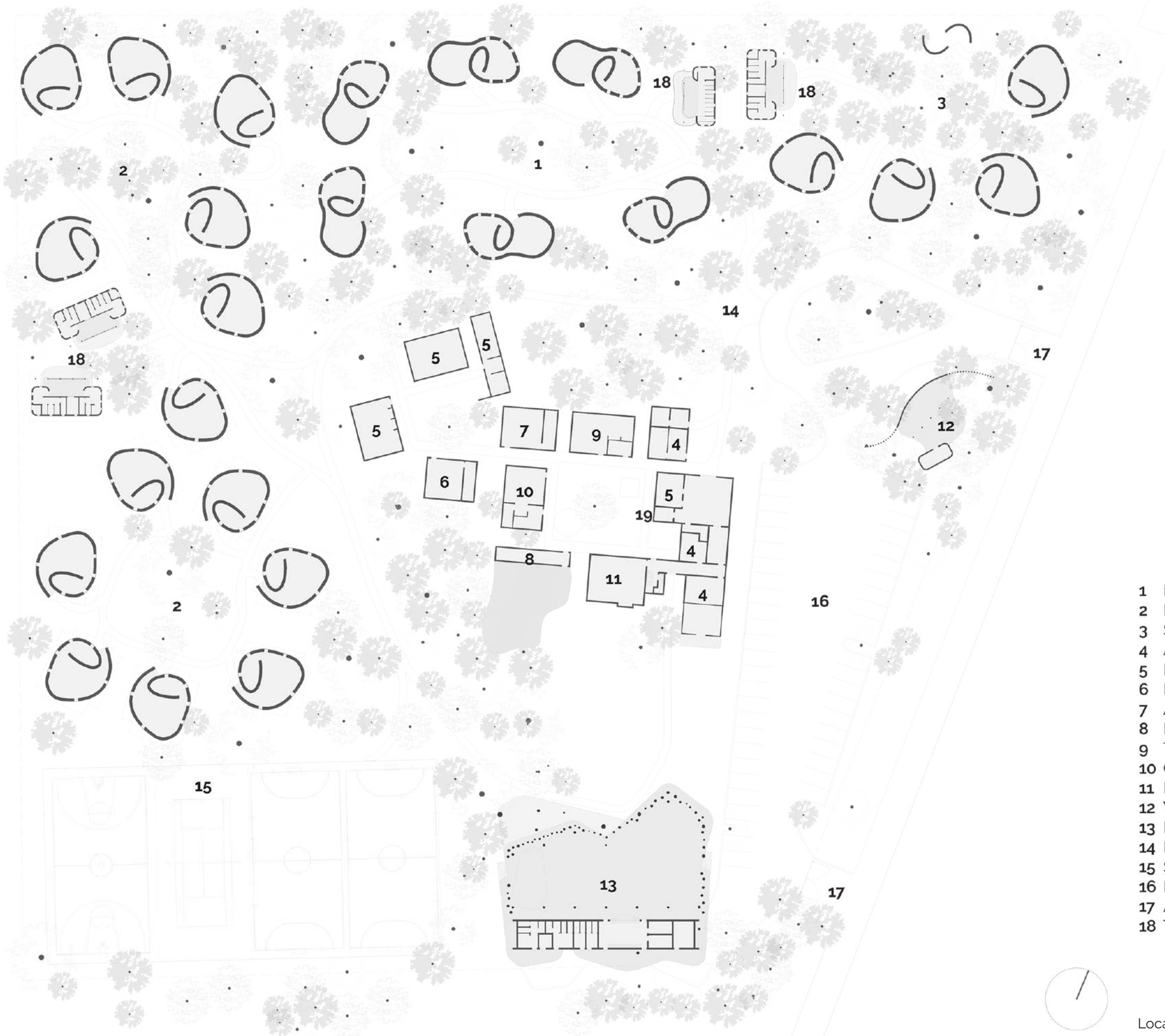
Interior view of a classroom



Axonometric view of a classroom

NAIROBI WALDORF SCHOOL

Maasai manyattas floor plans



Location plan

A Village for Kids Hidden in the Woods

The project was commissioned by a Waldorf school in Nairobi, an institution deeply connected to nature and grounded in Anthroposophy. The buildings needed to be constructed quickly, cost-effectively (achieving a cost of 250$/m²), and with a temporary lifespan, as the plot lease is set to expire in 10 years.

The concept was to create a small village for children, located in the forest, preserving the existing old house on the site to be used as additional classrooms and services. The land was a forest rich in native tree species, and the goal was to integrate the school harmoniously into the natural environment. To achieve this, the classrooms were designed as a scattered village, strategically located in clearings of the forest. The classrooms have soft, organic shapes, with a spiral configuration, inspired by Maasai manyattas and other vernacular architectures of Kenya.

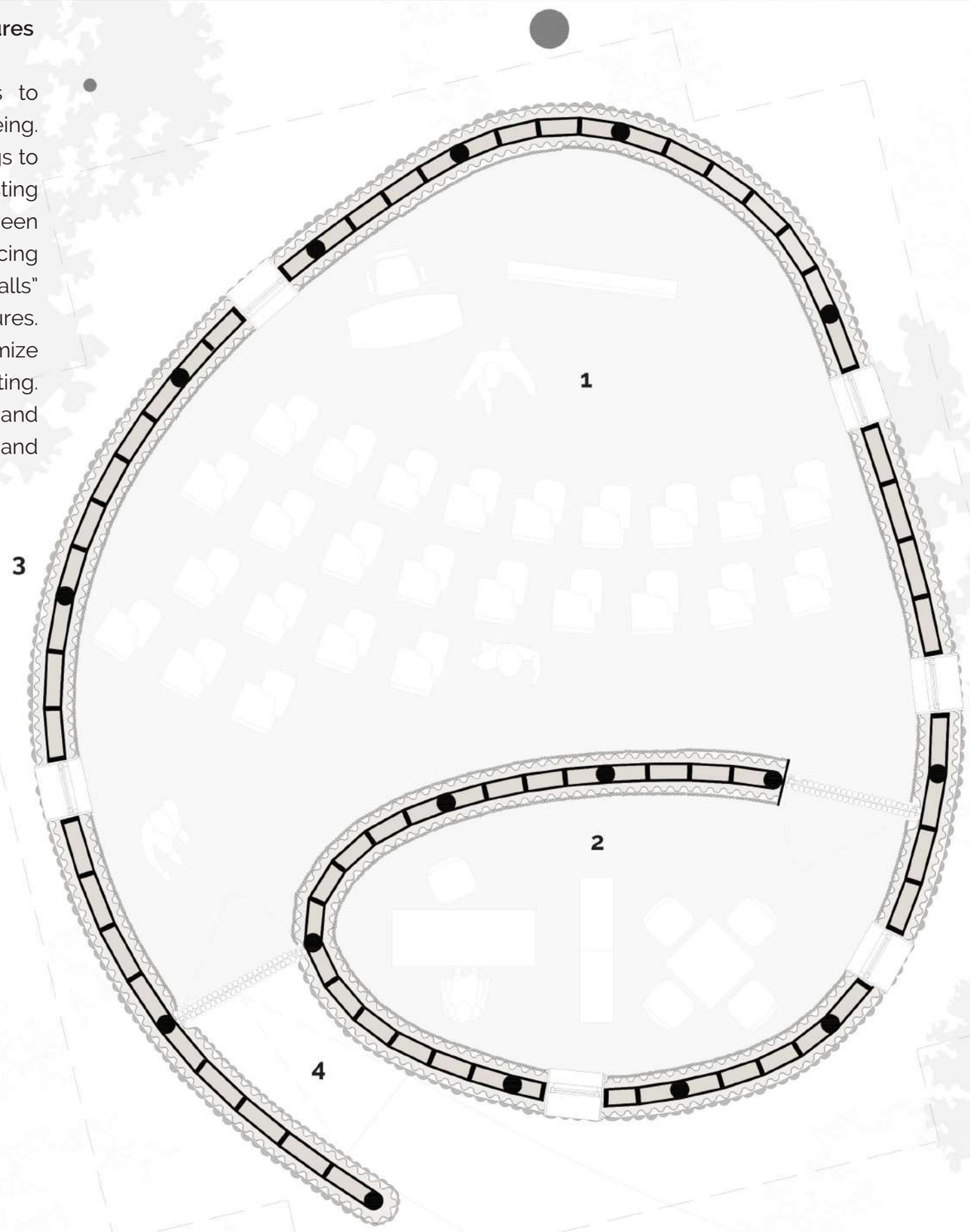
Exterior view of the classrooms in the forest

NAIROBI WALDORF SCHOOL

Interior view of a classroom

Sustainable building design through passive measures

The project integrates passive design strategies to enhance energy efficiency and occupant well-being. The classrooms are dispersed within natural clearings to maximize shade and minimize disruption to the existing forest. Large roof overhangs and elevated gaps between the walls and roof allow for cross-ventilation, reducing heat buildup. The use of laterite-rich soil in the "living walls" provides thermal mass, regulating indoor temperatures. Skylights and translucent polycarbonate panels optimize daylighting, reducing the need for artificial lighting. These measures create a comfortable, naturally lit, and ventilated environment, promoting student health and engagement.



1 Learning Room
a flexible rounded space, with no corners, that avails for a diversity of distributions

2 Learning Support Room & Teacher's Room

3 Living Wall
the translucent sheets will allow students to see and interact with the natural/living elements inside

4 Access
ramp addition to provide an easy access to all users

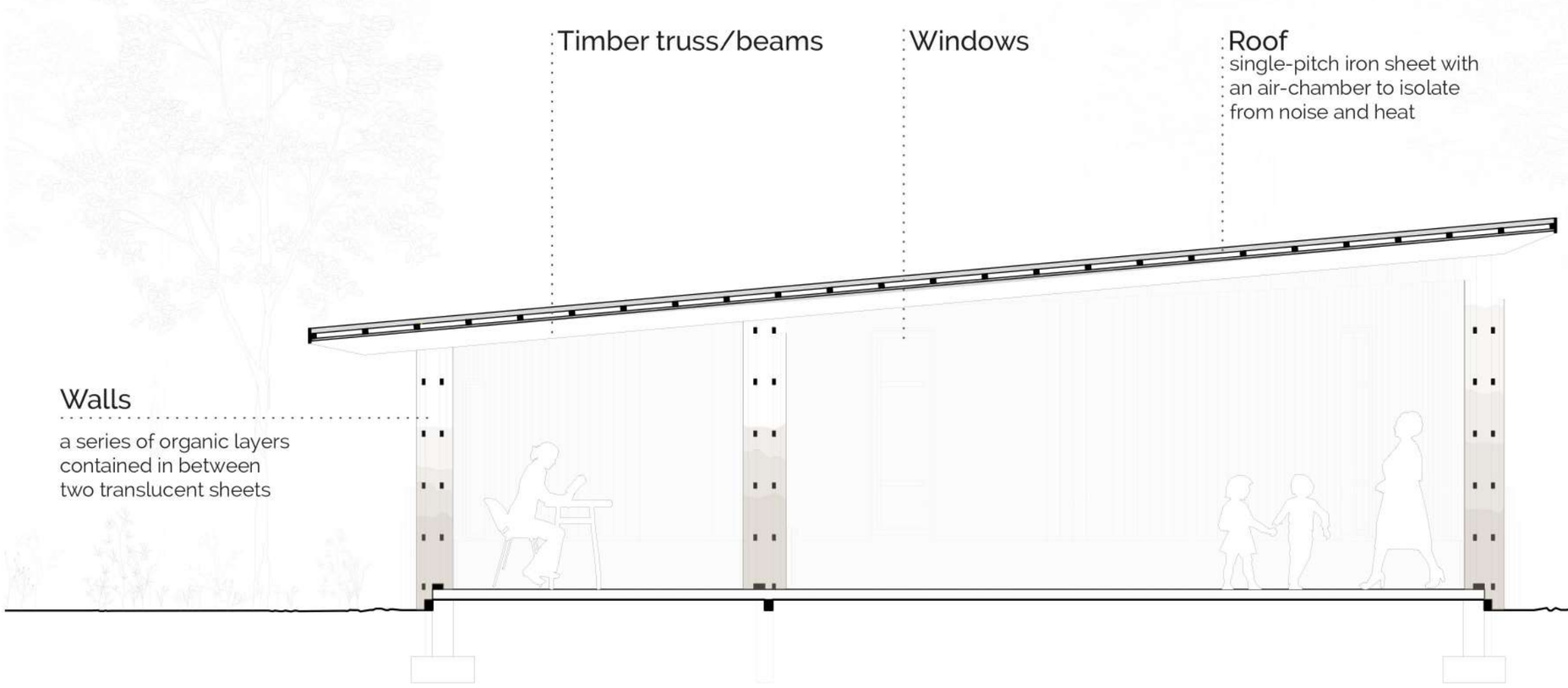
Classroom floor plan

NAIROBI WALDORF SCHOOL

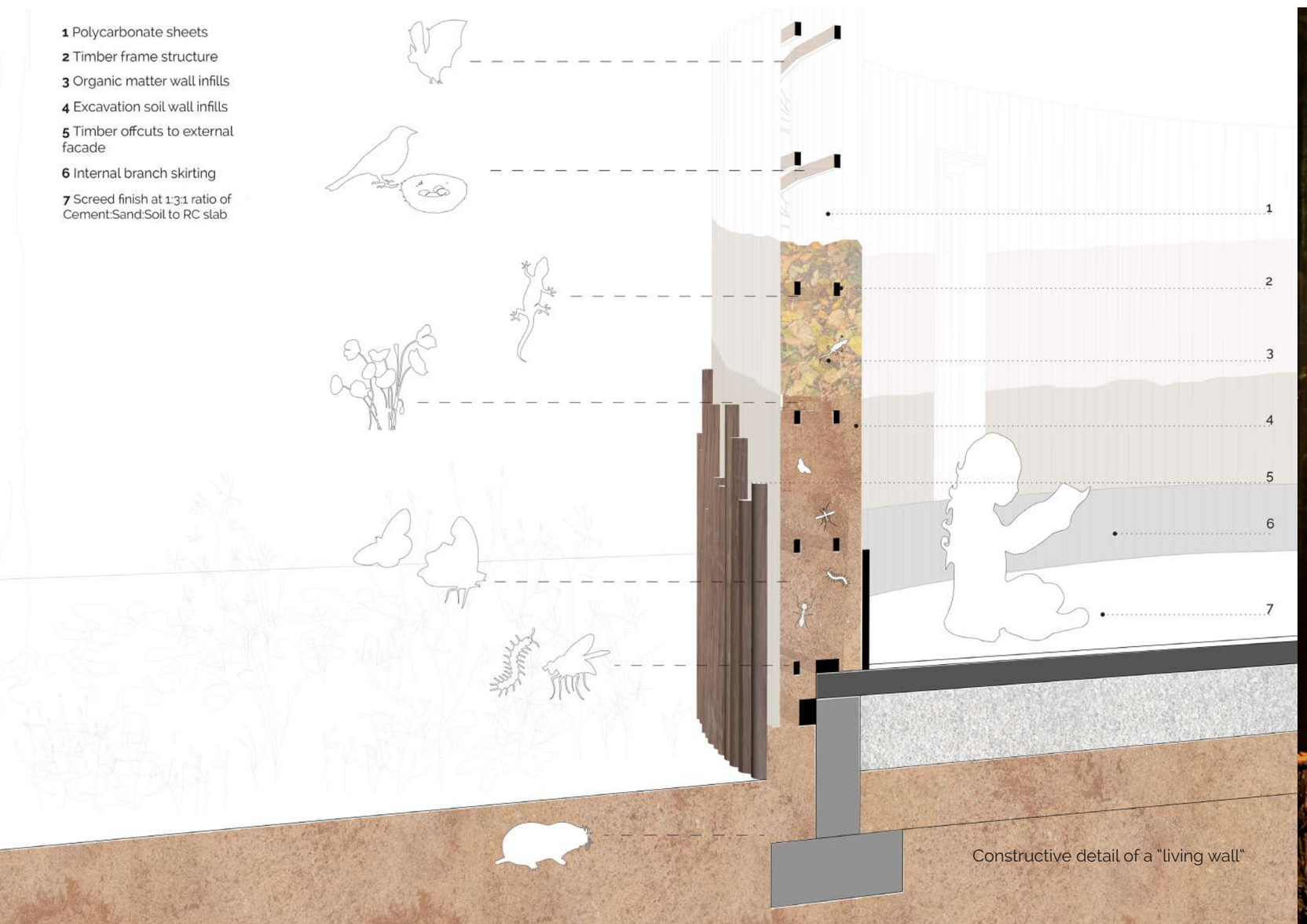
Classrooms ono-site setting out

Wooden classroom structure

Living walls filling

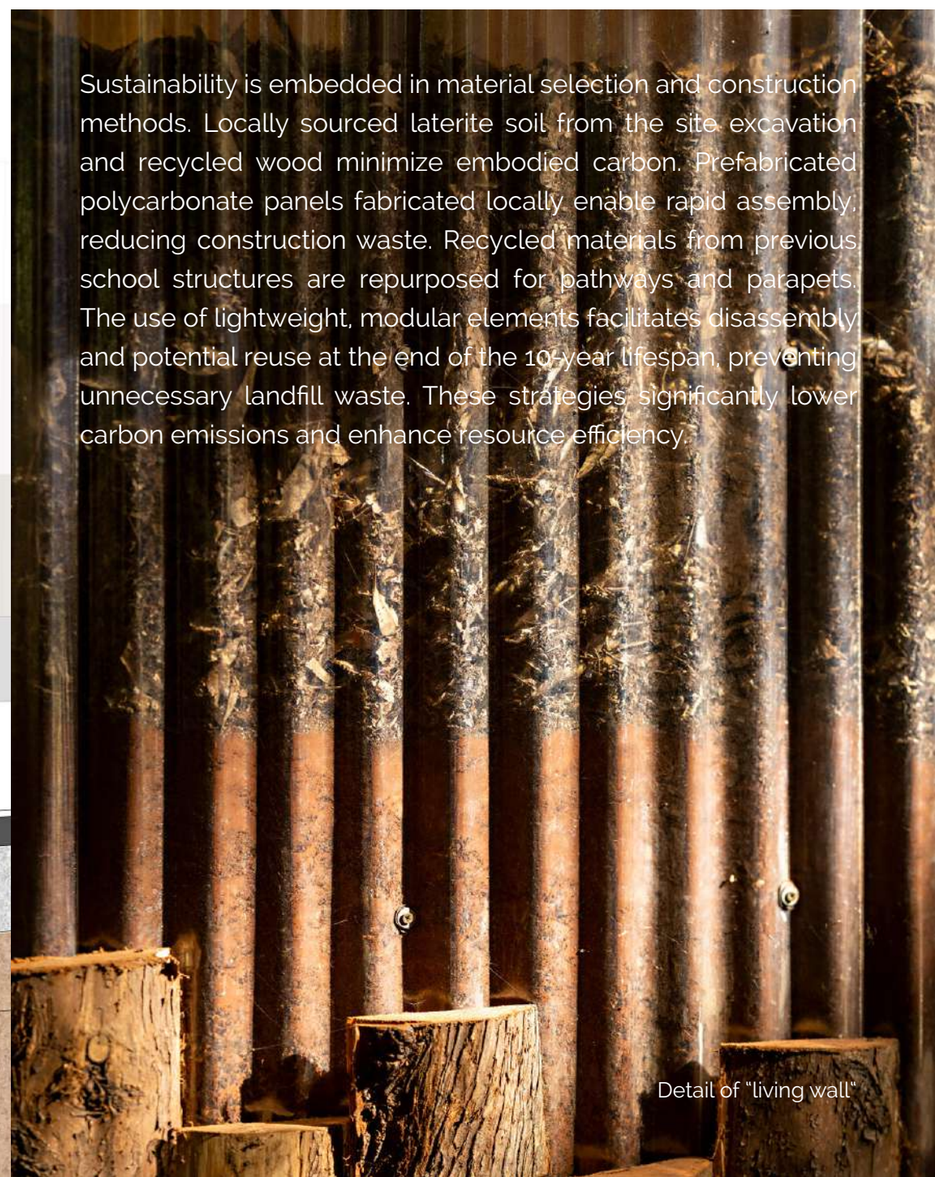


The design aimed to foster a deep connection between students and nature. To enhance this bond, we introduced "living walls." Considering the project's ephemeral nature, the walls were constructed by filling the space between two polycarbonate sheets with leftover soil from excavations and a second layer of forest leaves. This innovative technique met the client's need for speed and cost-efficiency while offering a unique aesthetic. The polycarbonate's transparency reveals the dynamic life within the walls—ants, bugs, plants, roots—and reflects natural light and colors into the classrooms. These evolving living walls transform the classrooms into vibrant, active environments, encouraging students to observe biodiversity up close.



Constructive detail of a "living wall"

Sustainability is embedded in material selection and construction methods. Locally sourced laterite soil from the site excavation and recycled wood minimize embodied carbon. Prefabricated polycarbonate panels fabricated locally enable rapid assembly, reducing construction waste. Recycled materials from previous school structures are repurposed for pathways and parapets. The use of lightweight, modular elements facilitates disassembly and potential reuse at the end of the 10-year lifespan, preventing unnecessary landfill waste. These strategies significantly lower carbon emissions and enhance resource efficiency.



Detail of "living wall"

NAIROBI WALDORF SCHOOL

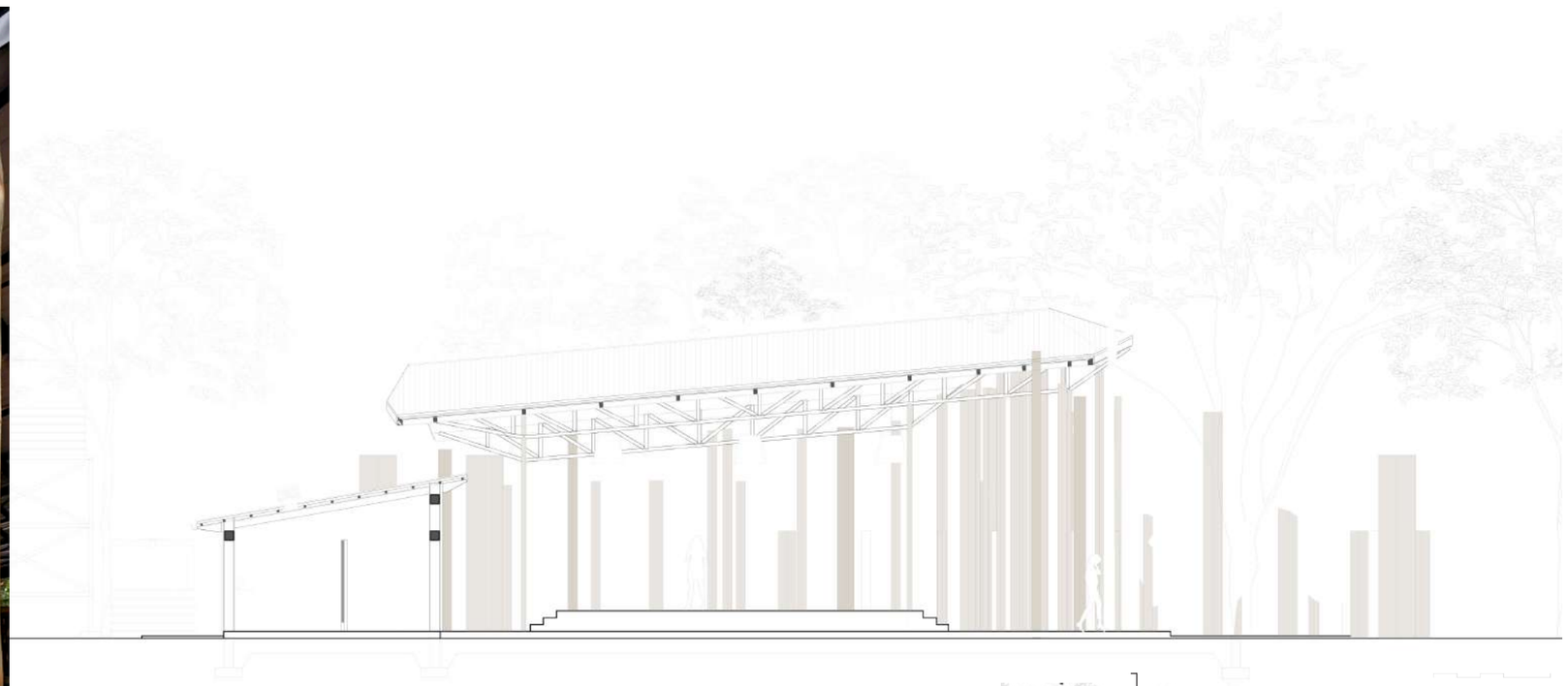
The construction system was designed to be adaptable and community-driven, engaging children, parents, and teachers in the process. Whenever possible, materials from dismantled classrooms were recycled and repurposed: wooden floors and walls became parapets, and roof tiles were transformed into path boundaries. Oil drums were upcycled into toilet sinks, while tree trunks—removed to clear space for sports fields before engaging us—were creatively used as screens in the dining hall. An old shipping container from the previous school grounds was relocated and adapted into the new school library. Additionally, soil was mixed into classroom slabs and concrete pathways to minimize the use of cement and external aggregates, promoting a more sustainable approach.

This approach combined creativity, sustainability, and community involvement to create a truly unique learning space.

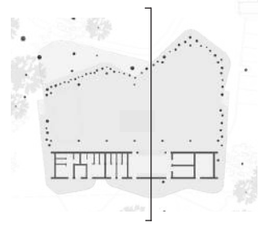
Dining hall view

Dining hall long section

Dining hall view



Dining hall cross section



NAIROBI WALDORF SCHOOL

Landscape & Biodiversity Integration

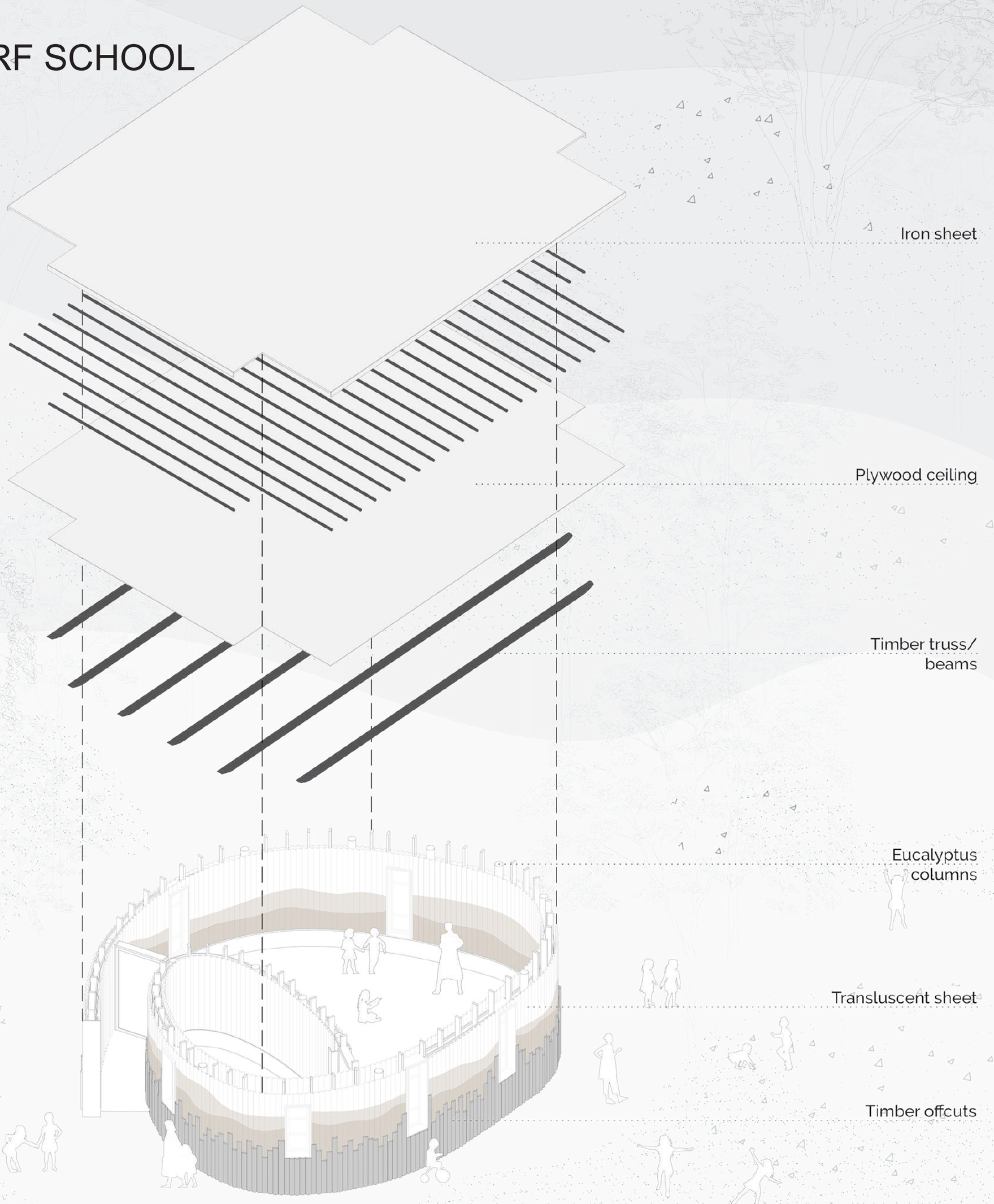
The project site, a dense forest within Nairobi's Karen neighborhood, was carefully preserved to maintain its ecological integrity. Instead of clearing large areas, the intervention adapted to the natural land use patterns by situating classrooms within existing clearings, reducing deforestation and soil disturbance. The use of local laterite soil and minimal concrete foundations ensures low-impact development. Over time, the project contributes to regenerative transformation by fostering biodiversity within the "living walls" and integrating recycled materials. The school's presence promotes environmental awareness, reinforcing a sustainable relationship between built and natural environments. This approach transforms the intervention into a regenerative force, enriching the landscape rather than depleting it.

Forest classrooms elevation view
with empty walls

Classrooms elevation detail

Forest classrooms elevation view
with empty walls

NAIROBI WALDORF SCHOOL



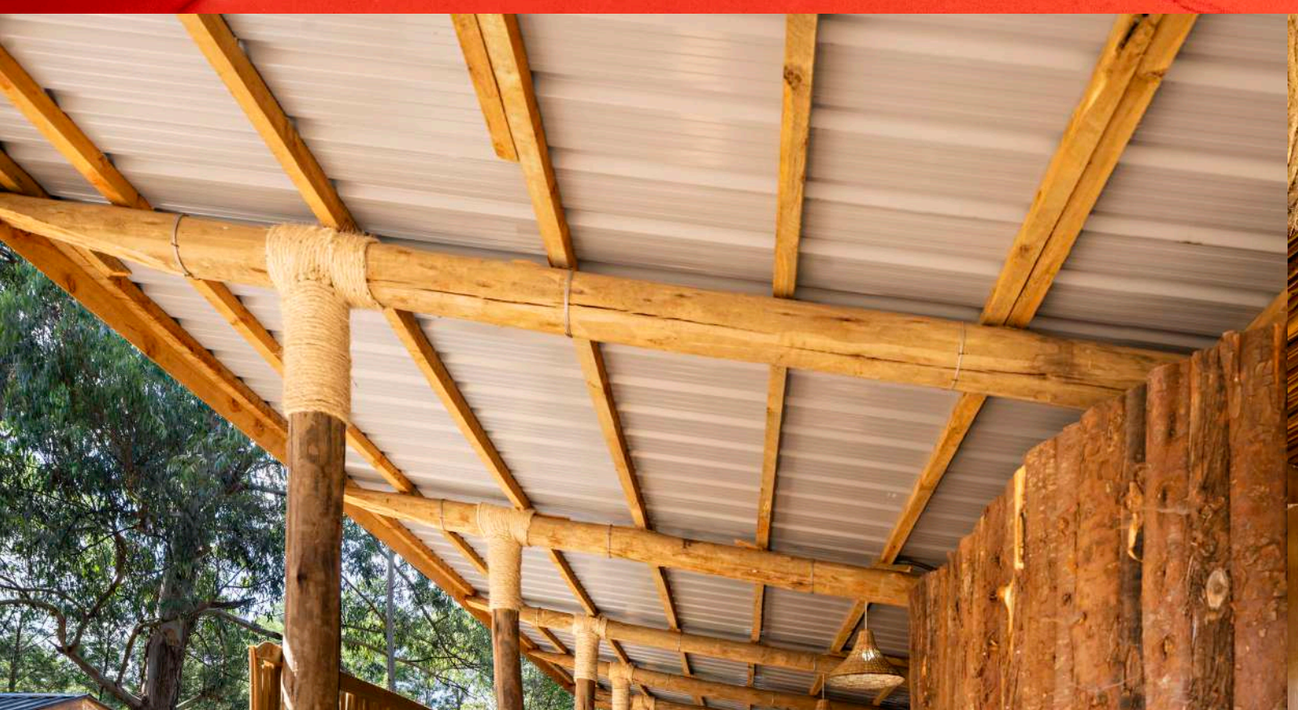
Axonometric view of a classroom

Empty living walls detail

Filled living walls detail

NAIROBI WALDORF SCHOOL

Primary classroom interior



Participatory Design

The project embraced a collaborative approach, actively involving students, teachers, and parents in the design and construction process. Workshops and discussions were held to align the architecture with the Waldorf's educational philosophy, ensuring that the spaces reflected the community's needs. Local craftsmen contributed to the construction, using recycled materials from previous structures. Students, parents and teachers participated in hands-on activities, such as filling the walls with soil, fostering a sense of ownership and environmental stewardship. This inclusive process not only strengthened community engagement but also enriched the educational experience, transforming the school into a living, evolving learning environment.

Bathrooms

Primary classroom semi-open area