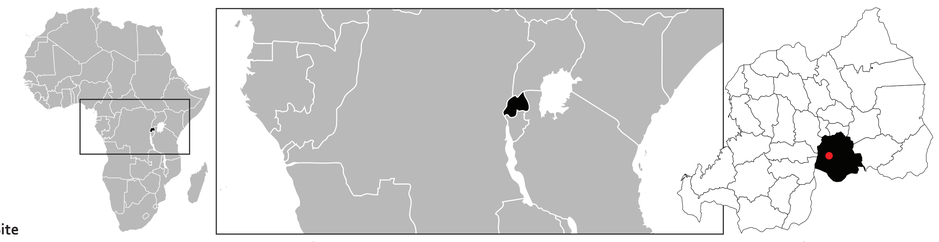
NIBAKURE CHILDREN'S VILLAGE | NYAMATA, RWANDA

BRYAN MAY



Site

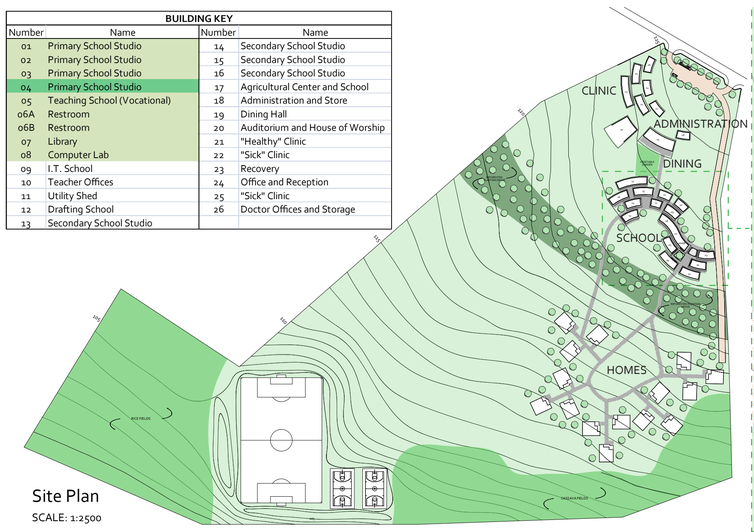
The site is 3 kilometers outside the town center of Nyamata, Rwanda. Located in the Bugesera District, Nyamata saw some of the most tragic events of the genocide. Situated about 40 km south of the capital of Kigali, Nyamata is experiencing rapid growth and may become the site of the country's next international airport.

Objective

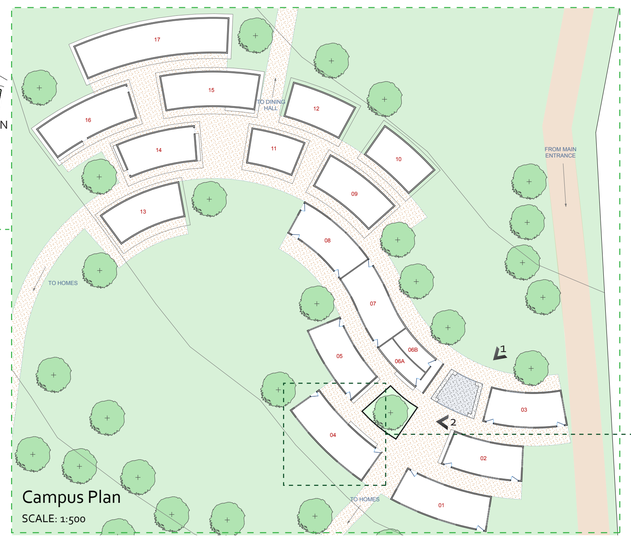
Design a master plan and school to provide orphaned children of Rwanda with the education necessary to become a part of the globalized world. The village and school will grow in phases, beginning with a group of 15 students and gradually expanding to a total of 150 children. Given Rwanda's recent history, nothing is more crucial than instilling in these children a profound sense of trust and safety by weaving together communities which are situated in their culture, place, and traditions. Materials for the buildings will be pulled directly from the site. Local labor and materials are essential to the construction of the school in order to reduce costs and to further connect the buildings to their site. Using local materials also minimizes the ecological impact of the project.

WEAVING COMMUNITY

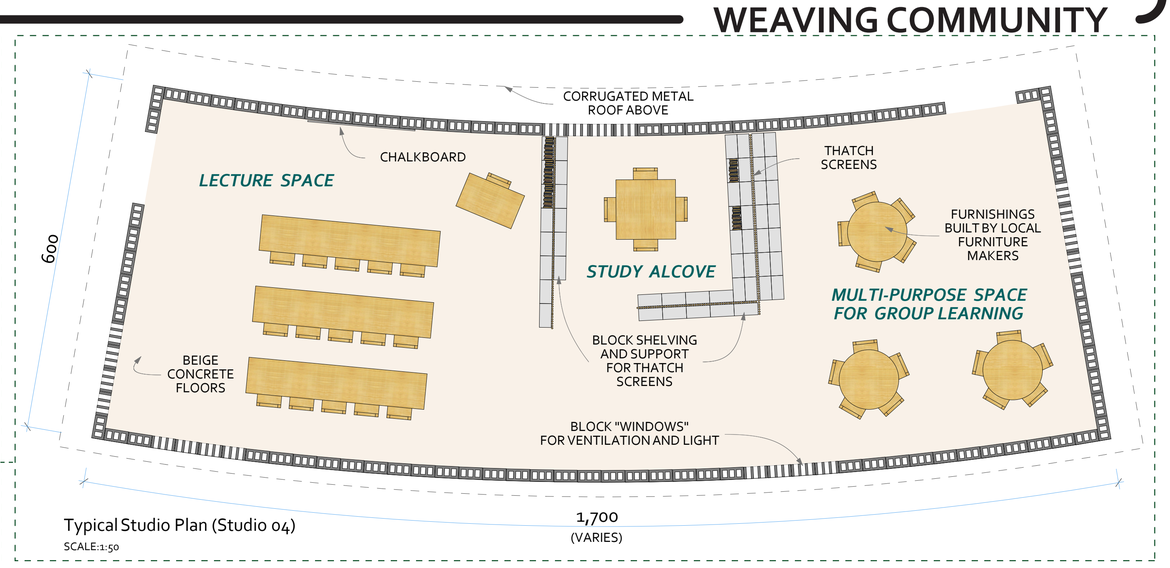
BUILDING KEY			
Number	Name	Number	Name
01	Primary School Studio	14	Secondary School Studio
02	Primary School Studio	15	Secondary School Studio
03	Primary School Studio	16	Secondary School Studio
04	Primary School Studio	17	Agricultural Center and School
05	Teaching School (Vocational)	18	Administration and Store
06A	Restroom	19	Dining Hall
06B	Restroom	20	Auditorium and House of Worship
07	Library	21	"Healthy" Clinic
08	Computer Lab	22	"Sick" Clinic
09	I.T. School	23	Recovery
10	Teacher Offices	24	Office and Reception
11	Utility Shed	25	"Sick" Clinic
12	Drafting School	26	Doctor Offices and Storage
13	Secondary School Studio		



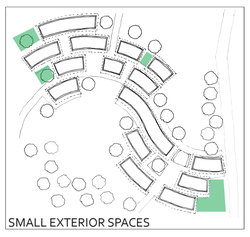
Site Plan
SCALE: 1:2500

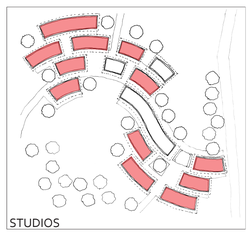


Campus Plan
SCALE: 1:500



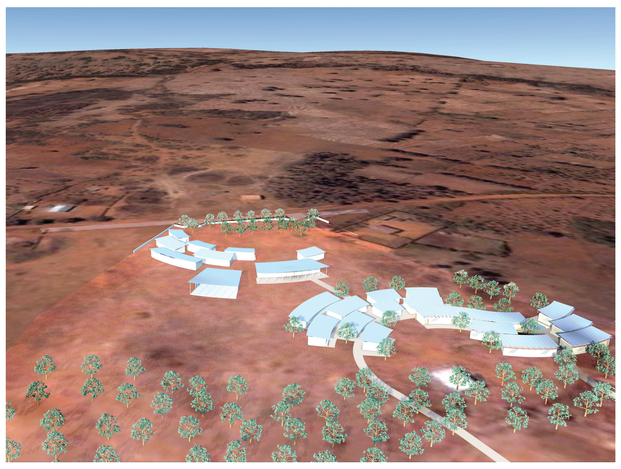
Typical Studio Plan (Studio 04)
SCALE:1:50

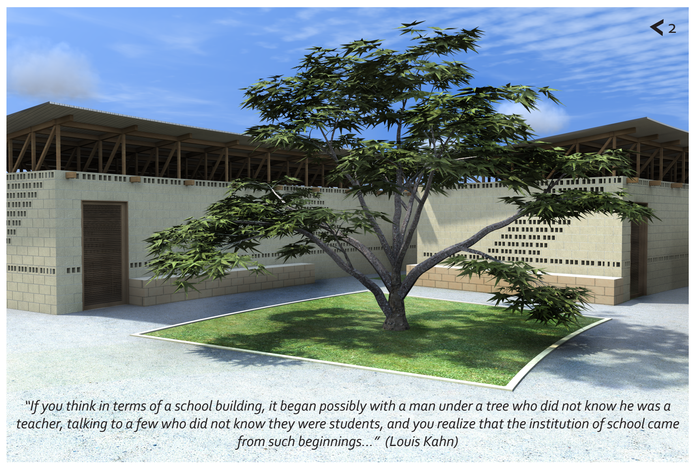

SMALL EXTERIOR SPACES


STUDIOS

LARGE COMMUNITY SPACES

SMALL LEARNING COMMUNITIES





"If you think in terms of a school building, it began possibly with a man under a tree who did not know he was a teacher, talking to a few who did not know they were students, and you realize that the institution of school came from such beginnings..." (Louis Kahn)

MATERIALS AND CONSTRUCTION

GATHER RUBBLE FOR FOUNDATIONS

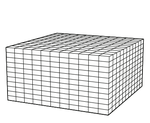
GATHER THATCH FOR SCREENS AND CEILING

SAND

EARTH

CEMENT

LOCAL LABOR AND BLOCK PRESS

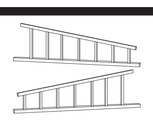

CONCRETE BLOCKS MADE ON SITE

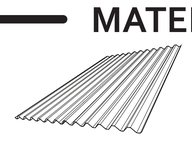
THATCH WOVEN ON SITE

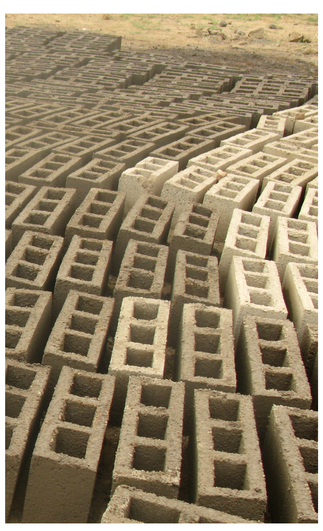
THATCH PANELS

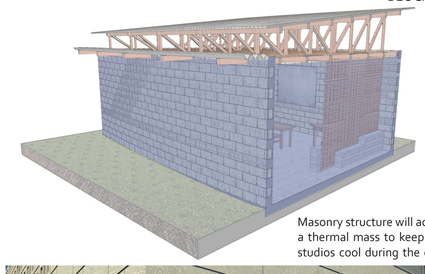
TRANSPORTATION

TIMBER BEAMS AND COLUMNS


ROOF TRUSSES

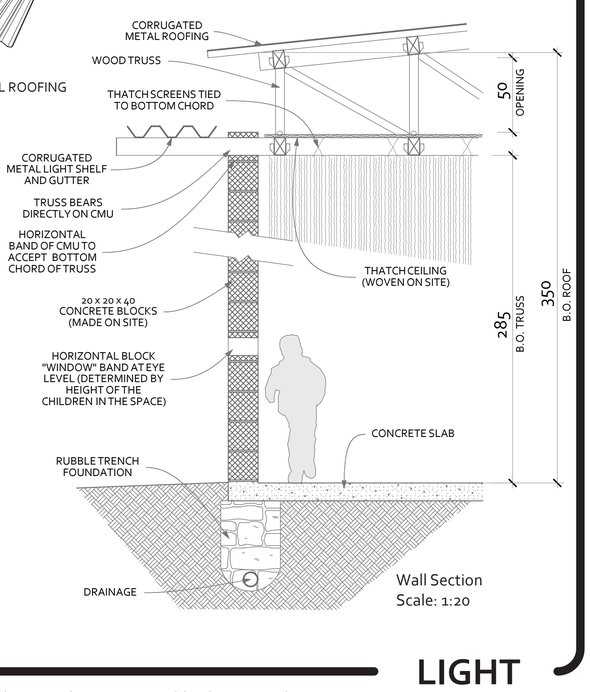

CORRUGATED METAL ROOFING




Masonry structure will act as a thermal mass to keep the studios cool during the day.

Thatch screens, woven from fallen branches found on the site, divide the space into separate study areas and class spaces. The panels are tied to the trusses and beams above and supported between blocks at their base. The blocks double as book shelves and storage racks for the children's items. Each space is easily configured and reconfigured to accomodate various learning needs.

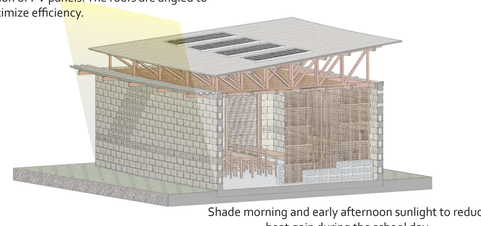
The sand-colored studios give way to light-colored gravel walkways. Block benches against the studios give the students a place to gather in the shade between classes, and a tree provides the children with a place to gather and learn from one another. At the primary school's entrance exists a small recessed area which fills with 2 centimeters of water after the brief, heavy storms which strike during the rainy season. The pool would dry quickly, allowing for a beautiful, transitory moment of reflection.

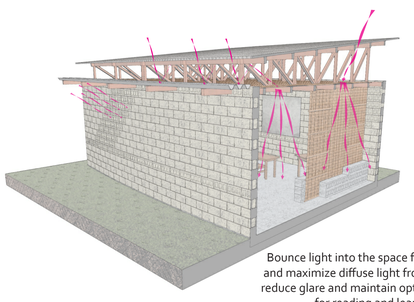


Wall Section
Scale: 1:20

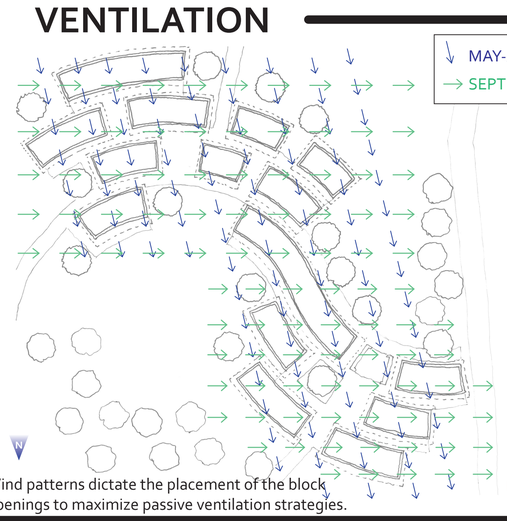
LIGHT

Buildings that require electricity (computer lab, administration, dining hall), benefit from the addition of PV panels. The roofs are angled to maximize efficiency.


Shade morning and early afternoon sunlight to reduce heat gain during the school day.

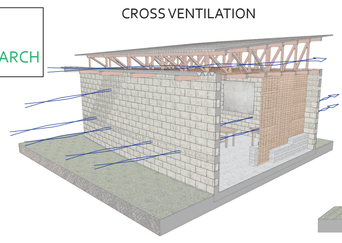

Bounce light into the space from the north, and maximize diffuse light from the south to reduce glare and maintain optimal conditions for reading and learning.

VENTILATION

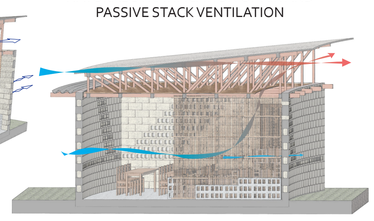


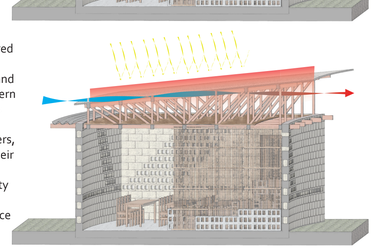
Wind patterns dictate the placement of the block openings to maximize passive ventilation strategies.

CROSS VENTILATION

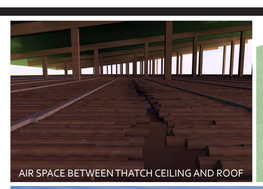
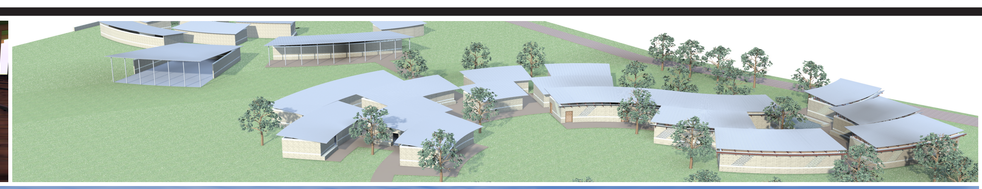
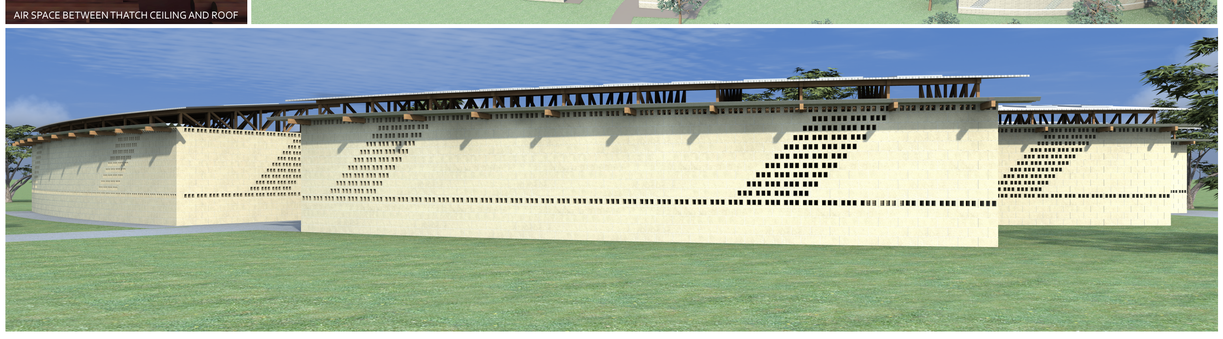


NATURAL STRATIFICATION OF AIR AND PASSIVE STACK VENTILATION





The block pattern is inspired by Rwandan basket weaving. A recognizable and traditional motif, this pattern symbolizes two friends walking along a path, stopping to chat with others, and then continuing on their way. It is a symbol of friendship and community commonly used in the weaving of Rwandan Peace Baskets.


AIR SPACE BETWEEN THATCH CEILING AND ROOF