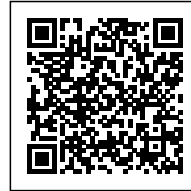




## MUDCAFETERIA: CENTER FOR SOCIAL GATHERINGS

Posted on October 5, 2022 by xavigonzalez



**Categories:** [ArchiFair](#), [Contributors](#), [Densities](#), [Formats](#), [Low Density](#), [Project](#), [Technology and fabrication](#), [Topics](#)

**Tags:** [Climate control](#), [Community](#), [Design strategies](#), [Earth](#), [Ghana](#), [Lightweight Materials](#), [Local materials](#), [Modular Design](#), [Multifunctional space](#), [Natural Lighting](#), [Project](#), [School](#), [Standarization](#), [Sustainability](#), [Wood construction](#)

# urbanNext Lexicon

mudCAFETERIA: Center for Social Gatherings

<https://urbannext.net/mudcafeteria-center-for-social-gatherings/>

The mudCAFETERIA is the center of a vocational school in the north of Ghana. It was built in summer 2017 by students of the TU Vienna together with locals from the community. The construction was finished after 12 weeks with a budget set at €20,000. It was important for us to build the cafeteria not only as a place to eat but also as a center for social gatherings, a place where students would have the opportunity to relax and socialize in a comfortable indoor climate. If needed, the building can also be used by the local community for small events.



The design is based on a modular system that can be repeated continuously. The modules are independent support structures, which allow for successive extensions of the building. The plan was

ISSN : 2575-5374



# urbanNext Lexicon

mudCAFETERIA: Center for Social Gatherings

<https://urbannext.net/mudcafeteria-center-for-social-gatherings/>

rasterized and standardized, so that construction was possible using only two different formwork-systems and one type of steel composite-beam.



We aimed to use mainly local sustainable materials and reduced the use of cement by only using it for the loadbearing or weather-exposed elements. Due to the constantly high temperatures in the region, it was essential to keep the building cool. In order to create a comfortable inside climate, we planned the structure according to a two-layer principle. The sheltered outside area surrounding the structure protects the inner area from rain and direct sunlight.

ISSN : 2575-5374

# urbanNext Lexicon

mudCAFETERIA: Center for Social Gatherings

<https://urbannext.net/mudcafeteria-center-for-social-gatherings/>



The outside walls, which consist of 45 cm rammed earth (without cement), function as a heat buffer, stabilizing the inside climate during the day. The loam in the walls stores heat and regulates moisture and sound. Moreover, it binds air pollutants and is fire-resistant. Because of the connecting "wind/light modules," the building is well ventilated and indirect natural light can reach the inner layer. To increase the natural cooling effect, the cafeteria's main axes are set at a right angle to the prevailing wind direction.

ISSN : 2575-5374



# urbanNext Lexicon

mudCAFETERIA: Center for Social Gatherings

<https://urbannext.net/mudcafeteria-center-for-social-gatherings/>



The roof is made of corrugated metal, common in this region because of the heavy rainfall. For noise reduction during the wet season and to reduce heat emissions from the roof, locally produced straw mats were hung to serve as a back-ventilated sub-structure. We thus used a combination of measures to keep the inside of the building relatively cool, even on the hottest days.

ISSN : 2575-5374



# urbanNext Lexicon

mudCAFETERIA: Center for Social Gatherings

<https://urbannext.net/mudcafeteria-center-for-social-gatherings/>

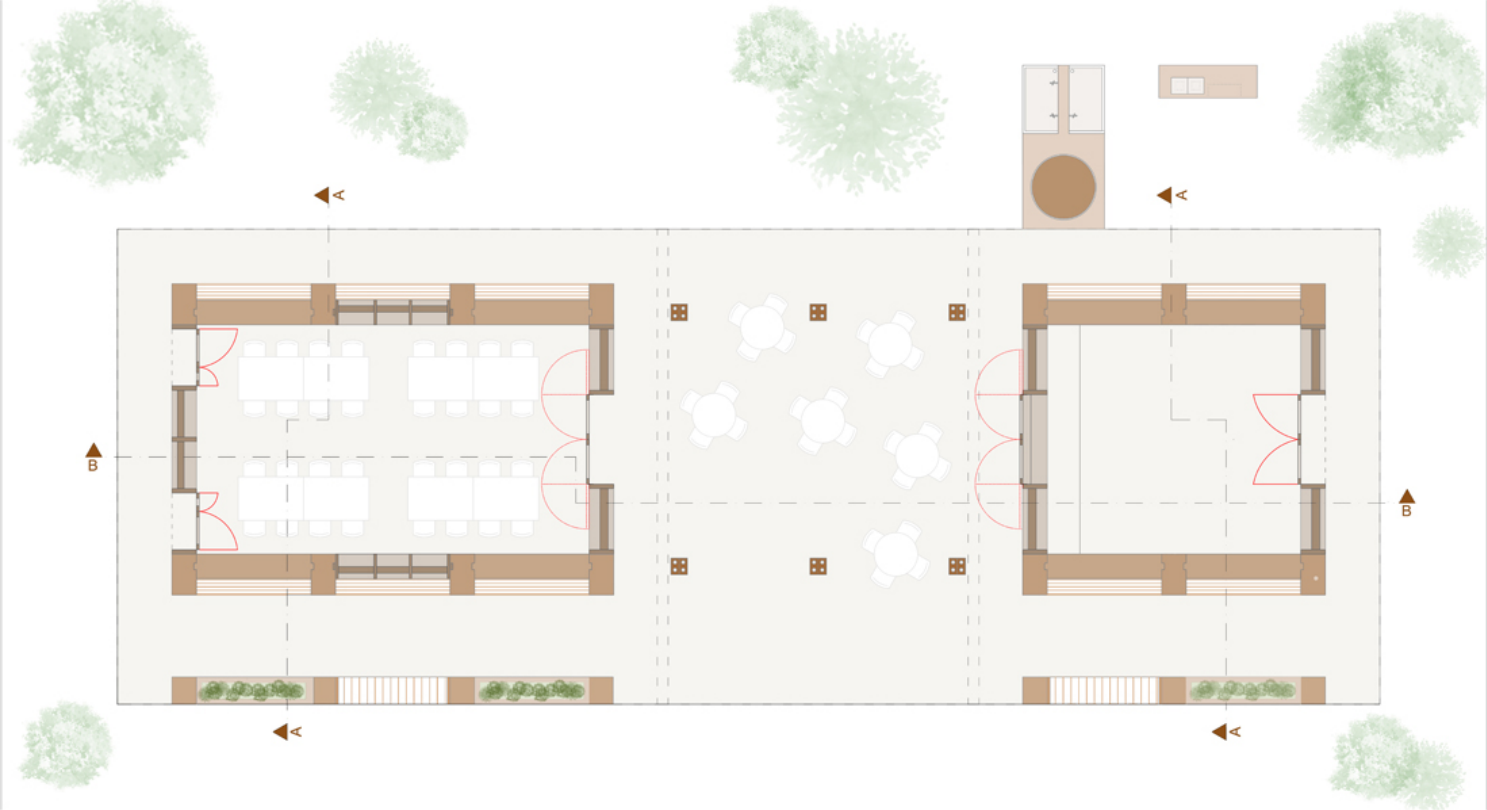


The building consists of three independent sections. The biggest section, a multi-purpose room, will be used as a classroom for now. In the smaller room, there is a counter with a serving hatch connected to the central, semi-outdoor space.

ISSN : 2575-5374

# urbanNext Lexicon

mudCAFETERIA: Center for Social Gatherings  
<https://urbannext.net/mudcafeteria-center-for-social-gatherings/>



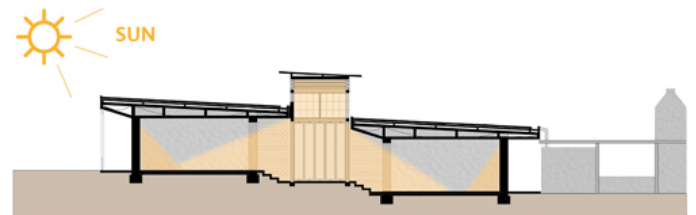
# urbanNext Lexicon

mudCAFETERIA: Center for Social Gatherings

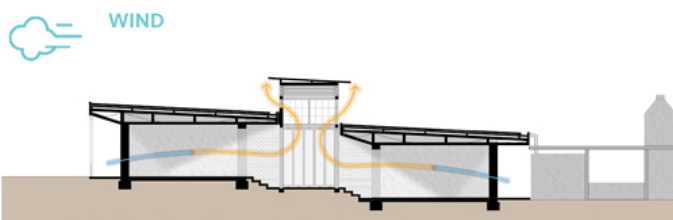
<https://urbannext.net/mudcafeteria-center-for-social-gatherings/>



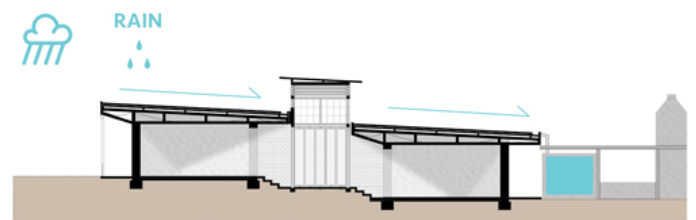
The basic module can be expanded as needed



The projecting roofs prevent the building from direct sunlight



The chimneys induce natural ventilation and indirect natural lighting



The rainwater will be collected and reused

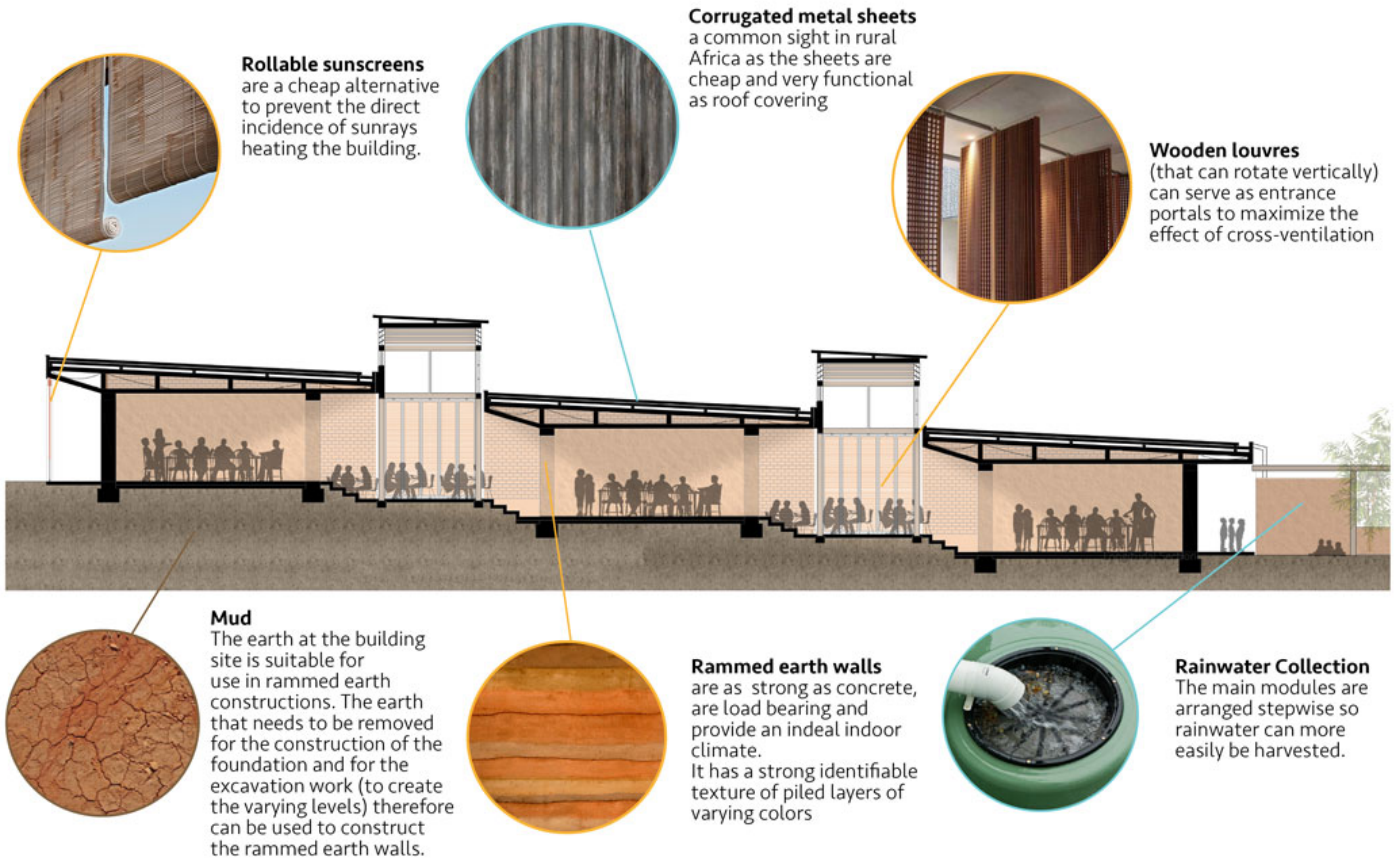
Different zones were created around the building, from bigger open ones to more private areas. The roof overhang, the sitting niches between the columns (rammed earth with cement), and the frontal seating and flower beds form an outdoor space for eating, socializing and resting. The blinds, which were made from leftover construction wood and locally produced rope, provide shade and additionally define the front porch area. Other leftover construction wood was used to build some furniture such as the kitchen counter. The cooking equipment and the rainwater tank are situated behind the building.



# urbanNext Lexicon

mudCAFETERIA: Center for Social Gatherings

<https://urbannext.net/mudcafeteria-center-for-social-gatherings/>



ISSN : 2575-5374

# urbanNext Lexicon

mudCAFETERIA: Center for Social Gatherings  
<https://urbannext.net/mudcafeteria-center-for-social-gatherings/>