



The project is located at Abetenim, a rural village in the Ashanti region of Ghana. It refers to the local patio house and it involves the arts production, becoming a platform for cultural exchange.

Foundations are made by local granite stones while the technique used for eARThouse provides rammed earth load-bearing walls. To achieve the widest spread of rammed earth, it must become able to compete with other cheap techniques such as cement blocks, in term of costs. For this reason new metal formworks have been made to promote a prefabricated feature, as a cost-effective tool, meant to be used several times.

To prevent from direct sunlight the main openings are covered with horizontal canes called Babadua, tied together to make a screen. The project provides a rainwater harvesting system in which the water is filtered and then stored within the water tank which can provide sanitary water. Rubber stripes were fixed directly under the covering sheets, using half garden hose, to reduce rainwater noise. The aim was to find out cheap solutions to be reproduced by anyone from different social status, in order to improve living conditions through simple changes.



1- Front view

2. Patio view, the sharing space in the traditional architecture

3. Finish made by Babadua canes as solar shading



eARThouse 2016

LOAD - Local Actions for Development



1. Cooperate for fair and sustainable development initiatives in active collaboration with disadvantaged people or communities. This process shall follow principles of human solidarity, non-discrimination and will be aimed at promoting their self-sufficiency

eARThouse is part of a wider strategy which aims to support the most underserved rural communities in Ghana through the arts. For this reason the project tries to promote new activities within an Arts Village, as a place to experience craft production learning new skills. Self-employment is continuously inspired by new constructions and hand-made workshop, where locals are able to emancipate themselves from economic dependency. Young people have therefore the possibility to collaborate with skilled workers or international professionals to enrich their competences. In terms of craftsmanship, the project offers a sustainable working space, with high thermal comfort and attractive learning platform for clay products. In terms of builders, most of the young have already gained extensive background about traditional and innovative earth techniques, such as rammed earth, due to other experimental buildings in the existing Arts Village. Rammed earth represents a locally-made affordable construction process in which to identify an equal and sustainable chance of entrepreneurship by those young living in rural villages.



1. Abubakar making clay stoves

2. Edward, Mattia and Oti during the ramming of one section

3. Abass, Edward, Kofi and Adamu working on the patio walls



eARThouse 2016

LOAD - Local Actions for Development



5. Facilitate the use of appropriate technologies, materials and labour adequate to local values, to the cultural specificity and responsive to the natural environment

The nowadays trend in rural Ghanaian villages faces the common ambition towards cement technique, as a modern and rich material for the local mindset. In result, the earth heritage of tradition and culture might be seriously undermined. Rammed earth technique moreover responds to certain attractive requirements questioned by locals, in terms of strength, durability, affordability and thermal comfort. At the same time it brings the earth constructions into a new frame, overcoming the stigma as a poor living shelters, usually made with cob or stacked earth techniques. For this reason, earthen materials are able to defend the rural identity of many Villages in Ghana, as a specific traditional characteristic. It is not only about aesthetic but the promotion of cultural identity and know-how.

In this project sustainability means working with the lowest budget, in order to achieve a cost-effective building according to local dwellers affordability. Reducing the cost anyone within the community will be able to enhance his dwelling condition, despite personal resources. Therefore, to reduce the construction cost within the rammed earth technique, new metal formworks have been designed as a community tool, easily and quickly reusable by anyone several times, compared to the common wooden ones.



1. Making a rammed earth sample in the village's main square

2. Moving the formwork

3. A traditional earth house in the village

4. Setting up the formworks for the last layer



eARThouse 2016 LOAD - Local Actions for Development



1. Babadua solar screen detail
2. Rainwater harvesting system
3. Patio floor made by wood and stones leftover
4. Kwame, the local welder, making the formworks



6. Share knowledge, promote discussion, reflection and awareness, and collaborate in the advancement of the 'social production of habitat'

The construction process tightly evolves from innovative practices promotion while acquiring awareness on the local context. The technical solutions match to traditional uses and customs, combining external knowledge with site-specific know how. For instance, recycled materials and harvesting rainwater system have been implemented into the design, aimed to become part of a more sustainable-oriented local mindset. Furthermore, Babadua was also used as solar screen. It is basically a traditional material, locally available and one of the most resistant type of wood against termites and weather, but fallen into disuse as a poor material nowadays. Finally, eARThouse project tries to introduce new metal formworks for the rammed earth techniques, not only as a cost-effective tool but trying to trigger the discussion around community investments. This feature stimulates the collective initiatives, involving many families in the development of their living environment, changing the common vision in long-term period towards social emancipation.

eARThouse 2016

LOAD - Local Actions for Development