Midwives Quarters Have, Volta Region, Ghana

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The project Midwives Quarters Have is part of a program that provides a real-world design and construction experience to create socially and economically viable environments and to explore innovative material applications.

Student teams embarked collaboratively in the design and construction of a house for midwives in Have, Ghana working with local volunteers and workers, structural engineers, climate engineers, and local NGOs.

As part of their academic curriculum, students from multiple international universities implemented their ideas in real life and moved from theory to practice. Students completed multiple stages of planning and implementation: From the first draft sketch to detailed planning, 1:1 mockups, cost and time controlling as well as construction itself.

During four construction phases, teams of approximately twenty students at a time worked with craftsmen, volunteers from the community and local technical students: prior to each construction phase student teams designed parts of the building and then implemented their designs as part of a summer study abroad program.

The project, located in eastern Ghana in the village of Havé Etoe, consists of four housing units with an interior courtyard similar to traditional compound settlements. The Midwives Quarters Have provide housing for midwives and international aid workers to enable their work at the Health Clinic in Have. In addition to housing, the project also provides space for medical training and for newborn workshops.

As a response to the extremely hot, tropical climate, the project is based on a series of separated layers of enclosure which are structuring the building into different zones with gradual transition from exterior to interior. Each layer offers its very specific structural, material, functional, phenomenological, tactile, and climatic qualities within a very compact design.

The first exterior zone is defined through a central courtyard in reference to the traditional compound house with multiple terraces and steps: it allows for activities such as cooking, eating, laundry washing and hanging, meetings, dancing, gardening, and more. The second layer is constituted by a bamboo roof providing a shaded, slightly elevated area for medical workshops. The third layer – formed by blocks and brick screens – provides privacy for each unit and serves as a protective barrier against insects and other animals.

Brick patterns, which are based on patterns found in Ghanaian Kente fabrics, give distinct character to each unit’s exterior and interior design.

Depending on the function of the each space, different patterns were selected for the brickwork: At times purely decorative and at other times partly functional, where perforated masonry is used for ventilation.

During their time in Ghana students developed a strong awareness for the built environment in Ghana and the adequateness of their design ideas and applied construction methods, which sometimes lead to re-evaluated and change their design propositions during construction.
MIDWIVES QUARTERS HAVE | Volta Region | Ghana

Mixed Use: Residential + Medical Size: 4,000 SQ FT

The project, located in western Ghana in the village of Volta, consists of two buildings designed to accommodate a medical facility and residential apartments. The design is inspired by traditional Ghanaian architecture, featuring handmade bricks and natural materials such as wood and thatch.

As a response to the site's challenging terrain, the buildings are elevated on stilts, allowing for natural ventilation and creating a sense of openness. The materials used are locally sourced, contributing to the project's sustainability.

The project is a part of a larger initiative to improve healthcare access in rural areas. It aims to provide safe and comfortable living conditions for the residents while also serving as a medical center.

During their time in Ghana, students interacted with local communities, gaining insights into cultural practices and traditional building techniques. This hands-on experience allowed them to apply their academic knowledge in a practical setting, enhancing their understanding of sustainable design principles.

The project's success is evident in its integration with the surrounding environment, demonstrating how architecture can be a tool for social change and community development.