

MUDCAFETERIA

BUILDING A CAFETERIA FOR THE FUTURE COMMUNITY SCHOOL IN ABETENIM, GHANA

WORKSHOP INFORMATION

In the village of Abetenim in Ghana, the local population's children do not have access to secondary education; the few schools that do exist in the region are located well outside any reasonable walking distance. We therefore want to build a new school, in the village of Abetim, to allow these children to continue their education and to pursue a better future for themselves and their families.

Building time: July 9th 2017 - September 30th 2017

Projektleaders: M.Sc. Anna Schweiger & M.Sc. Jaap Willemsen





INDEX

1. **THE TEAM**
Who are we?
2. **INTRODUCTION**
What do we want to do?
Our motivation
3. **COST AND APPLICATION**
What does participating cost you?
Who can apply?
4. **GHANA/ABETENIM**
Factsheet Ghana
Abetenim
5. **NKA & MASTERPLAN**
The NKA Foundation
The masterplan and workshop
6. **ABOUT OUR DESIGN**
Our concept
Final design
7. **BUILDING PHASES**
Some images showing the various construction phases
8. **ACCOMODATION**
Where are we staying?
9. **TRAVEL**
Arriving in Ghana
Travelling from Accra to Abetenim
10. **HEALTH & SAFETY**
Hospitals, vaccinations, diet
11. **ACTIVITIES**
It won't be only working of course!





1 THE TEAM

M.Sc. ANNA SCHWEIGER



"I have studied at the TU Vienna. During and after my studies I have worked for various architectural offices in Vienna. Regretably I have never used the possibilities for studying abroad... My interests in travelling and foreign cultures, coupled with my ambition to engage myself socially, were the motivation to organise this workshop."

M.Sc. JAAP WILLEMSSEN



"I am originally from Holland. After finishing my first studies in Amsterdam I however decided to explore the world a little bit. I eventually have landed in Vienna where I have been living now for over 7 years. In Vienna I also obtained my master-degree at the TU. I am currently working as a project-leader at an architecture-office in Vienna where Anna sits opposite of me :-)"

WE ARE LOOKING FOR 30 VOLUNTEERS!



Who can participate?
Everybody over 18 is welcome to apply.
The only thing we expect from you is a healthy motivation!



2 INTRODUCTION

In the beginning of 2016, we, Anna Schweiger and Jaap Willemsen, decided to participate in the 4th Earth Architecture Competition. This international competition, organised by the NKA foundation, focuses on earth (mud) as a building material and, in this edition, centered on a masterplan for a community secondary school in Abetenim, Ghana. The design-exercise was to develop a modular-design for one of the functions of the school (classrooms, dorms, cafeteria etc.) so that the campus can grow along with its number of students. Our design entry was shortlisted by the International Jury and now we have been invited to build our design for the school cafeteria in Abetenim.

We are planning a workshop for the summer of 2017 in which we will construct several modules of our cafeteria design with the help of volunteers (students) and the local community. The workshop aims to serve as a learning environment where both the students and the local community can gain valuable practical experience building with earth. Furthermore innovative building techniques can be put into practice to improve the building discourse in the developing world.

Of course the most important goal is to give the children in Abetenim access to secondary education. Education is the key for underserved regions to take their future in their own hands, which, in our opinion, should be the focal point of international development efforts.

Are you willing to contribute to help us reach this goal? We hope we can arouse your interest in the following pages and we would be delighted to present the project in a personal meeting.

Our motivation

In the past few years we have learned that the daily routine of an architect is strongly governed by economic parameters whereas social-cultural or environmental aspects often fade into the background. Therefore we felt the need to fuel our creativity again and decided to participate in an architecture competition. The design exercise of 4th Earth Architecture competition seemed just the right project for us as it deals with the lives of children in need and also strongly focuses on sustainable design. With the invitation by the NKA foundation to organize a workshop in Abetenim we are offered a great opportunity to realize our design for the school cafeteria and as such give the children in and around Abetenim a chance for a better future.



Fotos © LOAD/TanzaniaMUD/Raumgeschichten - former workshops-teams



3 COSTS & APPLICATION

The workshop will take place from the 9th of July till the 30th of September. During this period volunteers are invited to join us for any number of weeks. We aim to compose a group of at least 30 volunteers who will, on a rotating basis, help us build the cafeteria. We want to make it very clear that you do not have to study or work in the field of architecture or engineering in able to apply. We even encourage people with a different professional background who could bring some other qualities to the project (for example photography, pedagogics, culinary skills, and so on). The only thing we expect from all our participants is a healthy motivation and a positive attitude. We also require each participant to stay at least two 2 weeks.

Costs for staying 2 weeks are approx: 500,-€

every additional week costs: 100,-€

Please note:

Airfare, visa (a three-month visa costs about 100,-€) and vaccinations (see chapter 10) are on your behalf. Inquire at the Ghanese Embassy in your home country for further information on visa-applications and costs. Flights from Vienna or Munich are currently approx. 550-750€.

Students can use the opportunity for an internship, thesis or personal research. Students from the TU Vienna, for example, have the possibility to get ECTS-points for participating in our workshop. We therefore advise students to inquire at their home universities if some kind of remuneration is possible. We can gladly help you by providing certain information for your home university or establish contact with a Professor at the TU in Vienna. Each volunteer will receive a certificate of participation which he or she can show then at their home universities.

If you consider participating do not hesitate to contact us!
Email: info@mudcafeateria.org



Fotos © Mirela Fiorese von ihrem artist-in-residence Projekt im Abetenim Arts Village



4 GHANA / ABETENIM

Factsheet Ghana

Capital:	Accra
Inhabitants:	ca. 26 Million
Surface:	238.537km ²
Official language:	English
Neighbouring countries:	Ivory Coast, Burkina Faso and Togo
Religions:	71 % Christian, 17 % Muslim, 6 % Traditional Religions, 6% none
Currency:	Ghana cedi (GHS)
Time zone:	GMT (UTC+0)



On 6 March 1957 at 12 a.m. Kwame Nkrumah declared Ghana's establishment and autonomy as the first Prime Minister of Ghana and on 1 July 1960, following the Ghanaian constitutional referendum, 1960 and Ghanaian presidential election, 1960 Nkrumah declared Ghana as a republic as the first President of Ghana.

Ghana is located in West Africa. In part due to a stable democracy, Ghana has experienced great growth in recent years. Being a very multi-cultural country, the larger cities are visited by plenty of tourists. Ghanaian people are welcoming to visitors and are excited to show their beautiful landscape.

Abetenim

Abetenim is a small community located approximately 40 km southeast of Kumasi in the Ashanti Region of south-central Ghana. Today, the population is about thousand people, with 60% of them under 25 years. Abetenim is facing an extremely low literacy rate of 2%. About 98% of the adults in the village are unable to read or write proficiently because they did not have access to elementary school education. Residents are primarily subsistence farmers earning little to no disposable income. More than 75% of the people in Abetenim live below the poverty line, as defined by the United Nations, by subsisting on less than \$2 (USD) per day. The architecture of the village is the architecture of necessity. The village is dotted with mud houses, built in ways that speak of abject economic poverty. Spaces are small. Materials are basic. Most activities, from cooking to socializing, take place outside in the shade of a tree or veranda.

With the help of numerous international partners, the NKA Foundation has helped the community in Abetenim build a junior secondary school and a kindergarten. Acknowledging that a senior secondary school is now urgently needed, the community has identified a ten-acre site for the proposed campus. The NKA is coordinating the planning process and the development of the school. This project is intended to provide Ghana and, indeed, development countries around the world, with a **model school** to be used as precedent for future developments in other communities.



Fotos © LOAD & Mirela Fiorese - Abetenim



5 NKA AND MASTERPLAN

NKA Foundation

The workshop will be completed in partnership with the non-profit Nka Foundation. Focused on sustainability through the growth of communities and human capital, Nka is run by artists, teachers, and volunteers. The organization has a focus on elevating the technologies and materials of an area to create and maintain healthy environments and communities. With a number of successfully completed projects, Nka has a positive and agreeable presence within the hosting communities.

Masterplan und Workshop

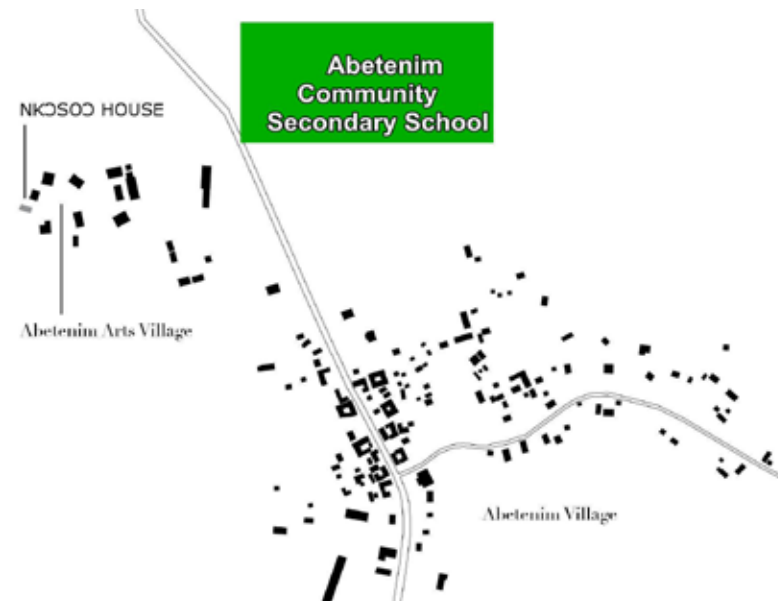
In October 2015, the NKA approached the United Nations Volunteer Organization with a request to facilitate the organization of a team of international professionals to assist with the planning, design and development of a secondary school campus in Abetenim, Ghana. Although work is ongoing on this project, the proposed guidelines, designs and strategies have been principally accepted by the NKA and the Abetenim community. The campus is to accommodate a target population of 1,200 students from around the region and will be built entirely with local materials and the help of the local community as well as from international volunteers.

The design proposals for the various school functions are a direct result of the outcome of the Fourth Earth Architecture competition (4EA).

Several of the teams who participated in the 4EA competition - and who were shortlisted by the jury - have been invited to plan a workshop within the next three years to realise their design. The organisation of these workshops is planned in accordance with the NKA. The NKA assists us as project leaders with valuable information based upon the experience of organizing similar workshops over the past few years. The NKA is strongly embedded within the local community in Abetenim and as such plays an essential role in creating acceptance along the local community for the workshops. Furthermore the NKA provides the local infrastructure for the workshops like facilitating housing for the volunteers, transportation of materials, contacts with the local workforce and so on.



Masterplan für die Abetenim Secondary School





6 ABOUT OUR DESIGN

Our concept

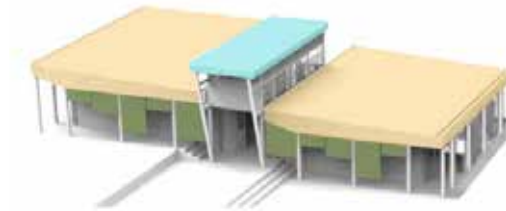
Our concept of the cafeteria is based on modular units which can be repeated throughout the design. The modules are structurally independent units allowing for a step-by-step development of the cafeteria in accordance with its increasing number of students. However, as we consider the cafeteria as a single building, with one spatial program, we have tried to create a design-concept where the arrangement of the individual modules both architecturally and technically form a coherent whole. The modules thus do not remain independent structures, they become parts in a greater structure. We furthermore decided to design the school cafeteria not only as an eating-place where the children come and go. We have considered it as a center for social exchange, a place with perfect conditions to learn and relax after class. To achieve this we conceived and juxtaposed the modules in such a way that different kind of spaces will envelop; from areas for public gathering to semi open spaces or even private spaces. In this way the children can choose their preferred space. On the next page you will find a section of the building with several of the materials we plan to use.

The images on the right-side show the two scenarios we are planning with. Taking into consideration certain uncertainties regarding to sponsoring and the availability of volunteers, building in a foreign (developing) country and other potential constraints, we think it is appropriate to plan for two different scenarios for our workshop. How many modules we eventually plan to build will be first decided in the coming months.

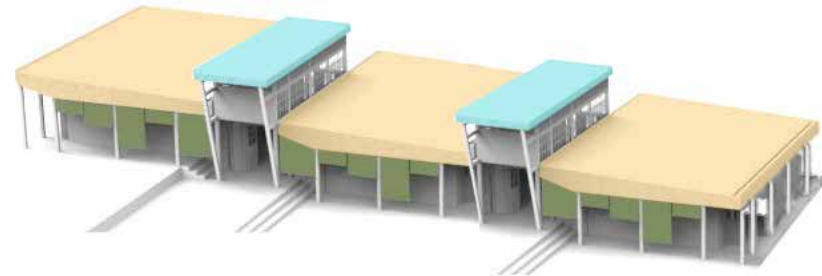
Final design

We are still developing our concept. What we submitted for the 4th Earth Architecture Competition needs to be refined and adapted to optimally respond to the prevailing conditions in Abetenim. As we have gathered a lot of additional information these past months with regard to building with earth and the local conditions in Abetenim, we will apply this knowledge the coming months and try to improve and concretize our design accordingly. Nonetheless, even with a precise construction plan in hand, there will be lots of things we will need to refine once we are actually building our design.

We want to actively integrate our team into the building process and therefore we will encourage any kind of input from our team with regard to design solutions. We can imagine for example that participants focus on a certain detail of the building, furniture or sunscreens for example., and bring in their own ideas to refine these aspects during the workshop.



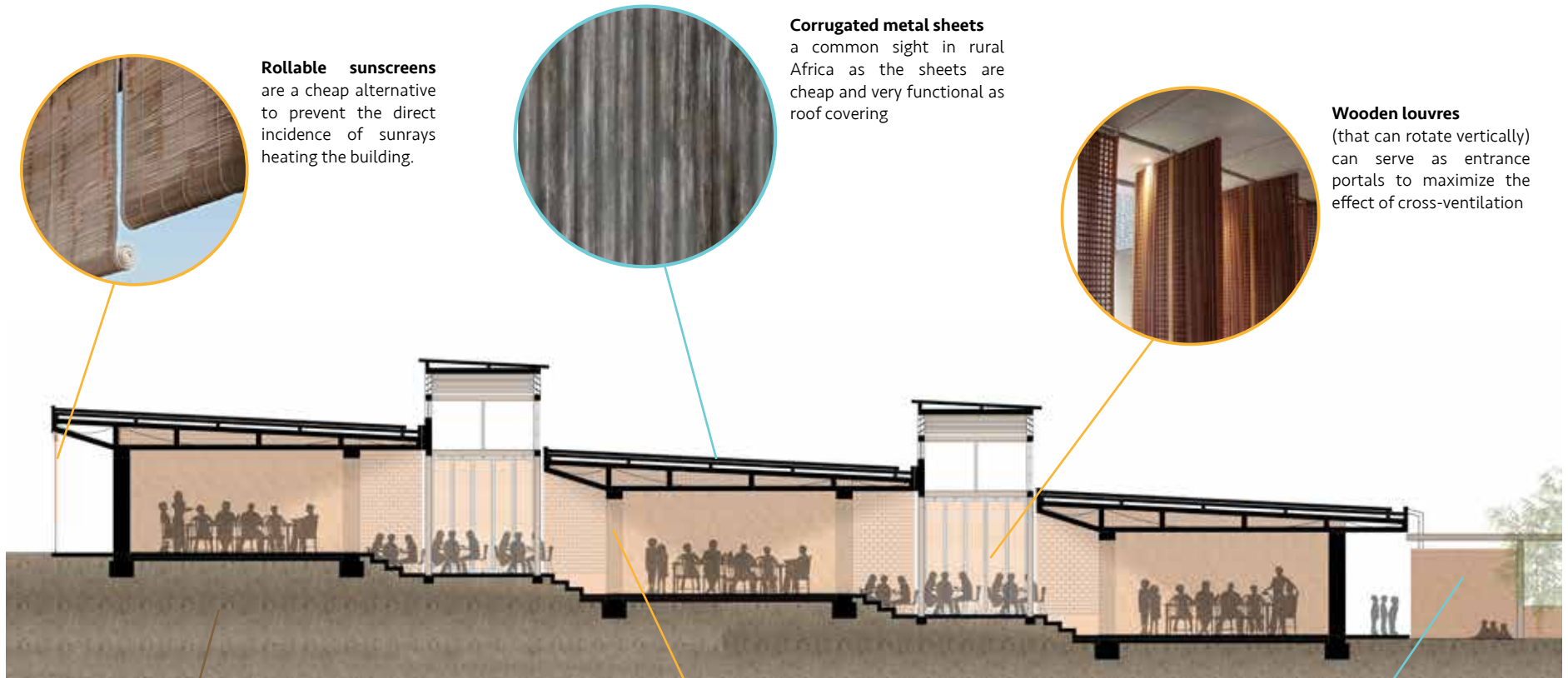
Combination 1: BASIC
2 large and 1 small Modules



Combination 2: AMBITIOUS
3 large and 2 small Modules



Conceptual rendering



Longitudinal Section

Rollable sunscreens
are a cheap alternative to prevent the direct incidence of sunrays heating the building.

Corrugated metal sheets
a common sight in rural Africa as the sheets are cheap and very functional as roof covering

Wooden louvres
(that can rotate vertically) can serve as entrance portals to maximize the effect of cross-ventilation

Mud
The earth at the building site is suitable for use in rammed earth constructions. The earth that needs to be removed for the construction of the foundation and for the excavation work (to create the varying levels) therefore can be used to construct the rammed earth walls.

Rammed earth walls
are as strong as concrete, are load bearing and provide an ideal indoor climate. It has a strong identifiable texture of piled layers of varying colors

Rainwater Collection
The main modules are arranged stepwise so rainwater can more easily be harvested.



7 BUILDING PHASES

JULY



1.- 2. WEEK- EXCAVATION WORK + CLAY OVEN



2.-3. WEEK- FOUNDATIONS



2.-3. WEEK - MATERIAL TESTING



AUGUST



4.-8. WEEK - WALLS, WINDOWS AND DOORS

SEPTEMBER



8.-12. WEEK - EXTERNAL AND INTERIOR FINISHES



8 ACCOMODATION

Participants will be staying in the Abetenim Arts Village which is within walking distance to the project site. The various buildings in the arts village will accommodate our team. Abetenim is a growing, yet rural community. Although it is on an electric grid, the grid is not entirely predictable, so please prepare accordingly. The houses have running water, but please be sure to read the Health & Safety section (chapter 10) concerning the use of water on site. Internet is also available using usb powered internet-sticks (presumably quite slow). In the coming months we will try to compose a comprehensive packing list so every one knows what to bring along. The site has a security guard on location throughout the night. Our community coordinator, Frank Appiah-Kubi, lives on the site with his family and is available 24/7 for support of the participants.

The NKA Projectleader has informed us that 'Christie' will be our cook on site and she prepares three meals a day. If the local kitchen might not prove totally satisfactory we also have the opportunity to organise our own meals. This would mean that lodging will cost only 50\$ a week and we do our own shopping (50\$ a week) and cooking.

It is important to keep in mind that we will all be living together, amongst locals who call this place their home. We are their guests. Everyone should be respectful and patient with one another and towards the community. There will be varying levels of skill in design, construction, and English amongst the team. Patience and a positive mind set within the group will allow us to work as a team and overcome challenges we will face together.



Fotos © Mamoth/ Ghanamud - accommodations in Abetenim



9 TRAVEL

Arriving in Ghana

All international flights arrive in Accra, Ghana at the Kotoka International Airport. Please share your travel itinerary and flight information with us so that we may plan accordingly and assist you with your travels once you arrive in Ghana. Abetenim is near Kumasi, the 2nd largest city in Ghana. While Kumasi does have an airport, it does not support international flights. If you arrive late in Accra it is advisable to spend the night in accra before continuing your journey to Abetenim. The NKA recommends the Agoos Hostel in Accra which is situated between the airport and the Busstation.

Website : www.agoohostel.com

Travel from Accra to Abetenim

By air

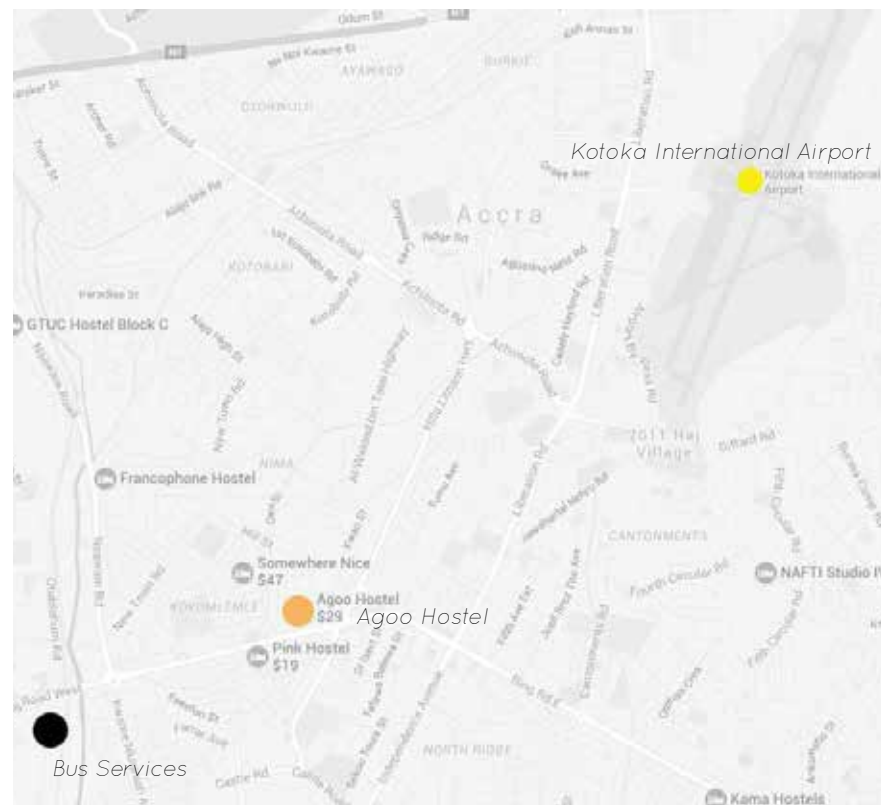
Once at the Kotoka International Airport in Accra, a domestic flight from Accra to Kumasi is available. The flight time is approximately 45 minutes. These flights may be booked in the Kotoka Airport or can be reserved online through several different domestic airlines. A few domestic airlines include Antrak Air, Starbow Airline, Africa World Airlines, Hahn Air.

By ground

Participants can take public transportation from Accra to Kumasi. A couple reliable bus services include State Transit Corp. and VIP Bus Service. Buses depart approximately every 30-45 minutes. However, there is not a fixed time table, so participants should be flexible. Travel time is about 4-5 hours from Accra to Kumasi. A ticket is about \$35 one way. Airport registered taxis can also provide transportation from Accra to Kumasi. This option is more expensive, but may be a cost efficient option for participants who are travelling in small groups and therefore could split the cost. The rate will vary, but NKA estimates it to be between \$100-\$150. Travel towards Kumasi, stopping at the Ejisu Junction stop (just east of Kumasi). This is a large junction and should be a stop for the bus services. However, it would be best to confirm this with the bus service prior to departure. A ride from this point to the Abetenim Arts Village will be arranged for you. However, if you would prefer to continue using public transportation, at the Ejisu Junction take a tro tro (minibus) to Jauben Township. From this point, take a taxi to Abetenim (about 10 minutes).

State Transit Corp: stc.oyawego.com

VIP Bus Service: facebook.com/VIP-bus-service-190053309015



cityplan of Accra



Street leading to Abetenim



10 HEALTH AND SAFETY

Please research required vaccinations and preventative health-care measures well in advance. Specific requirements may vary between participants, therefore, this section should be used only as a guide. It may be wise to consult your private doctor/health-care provider to discuss personal preventative measures. For all travellers the vaccination for yellow fever is however a prerequisite. You will be asked to produce a Yellow Fever Vaccination Certificate upon arrival at the Accra Airport. Some of the customary vaccinations are:

- DTP
- Yellow Fever
- Typhoid
- Hepatitis A and B
- Cholera
- Rabies

Malaria is still prevalent in Ghana. Please contact your doctor (or an institute for tropical diseases) before departure with regard to taking malariaphylaxis.

Please be aware that we cannot provide medical insurance for participants. We strongly recommend all participants therefore to organise a personal health (travel) insurance that will cover them internationally. In the case of minor injuries and incidents there is a government clinic in Juaben (approximately 3 miles from Abetenim). For major injuries and incidents, there is the Kwame Nkrumah University of Science and Technology University Hospital in Kumasi (approximately 20 miles from Abetenim).

Water

The tap water in Abetenim is not entirely safe for drinking. For sanitary purposes it will however suffice. Drinking water is available in form of bottled water, water sachets or you can boil/filter tapwater.

Food

Breakfast generally consists of coffee/tea with toast and some fruit. A typical meal (such as fufu) may include meat and vegetables with rice or noodles. Please note that many typical Ghanaian dishes have meat in them. Vegetarians, vegans, and those with dietary restrictions should research Ghanaian food early on and plan accordingly.



Hospitals in the vicinity of Abetenim



Vegetable stand in Kumasi



11 ACTIVITIES

The central activity during our workshop will obviously be the actual building of the cafeteria. You will gather practical insights in various construction phases and improve your skills as a craftsman. It is important to stress here that your hands will get dirty and that the work sometimes can be quite strenuous! This is nothing to be afraid of, we just want to point out that a basic physical fitness surely will prove helpful.

But of course it is not only work work work during your stay in Abetenim. There also will be enough time for immerse in the local culture of Ghana or explore the natural beauties the country has to offer. We will try to organise various group activities during the course of the workshop but everyone is self-evidently free to make his own plans.

Here some possible activities:

- Hiking trips in the nearby environment
- Visiting Kumasi, the second largest city in Ghana (Historic architecture, churches, markets (The Kejetia market is one of the biggest markets in Western Africa))
- Safaris
- Exchange with students from other workshop-groups and students from Kumasi
- Visiting the Kumasi University
- Cooking courses
- Language courses
- Excursion to Lake Volta



Fotos © Three Two Mudhouse team - on a team hiking trip in Kumasi.

GHANA IS WORTH A VISIT!

Ghanas beaches



Accra



Mole-Nationalpark



Achimota forest



TOURIST SERVICE CENTRE



Larabanga-Mosque



Kakum-Nationalpark



Stelzendorf Nzulezo



Kwame Nkrumah Park





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DONATIONS

Donate to MUD Cafeteria and give children in rural
Ghana access to education

Bankdetails:

Name:	MUD Cafeteria
IBAN:	AT52 3800 1000 0011 2508
BIC:	RZSTAT2G001

Thank you for your support



Hier könnte Ihr
Unternehmen
stehen

