## Afar Fieldwork—Jan/Feb 08

Arriving in Addis from a cold UK winter is quite a shock to the system—blue skies, sunshine and warm temperatures, although we are told that Addis will seem cold after time spent in the Afar!. Much of the Afar is below sea level and contains Dalloi which is one of the hottest places in the world with temperatures regularly over 40<sup>o</sup>C. My fieldwork is centred around a volcano called Dabbahu, close to where a rifting event occurred in 2005. Being able to travel to such a remote area has been an incredible adventure.

Whilst in Addis we had logistics to complete: purchasing food and cooking utensils from the Mercato—a huge 'market' which is actually an enormous area of little streets lined with kiosks; retrieving equipment



from customs; trying to get the sat phones to talk to the network (no mean task); and retrieving camping equipment from the Addis University stores. We were driving to the Afar in 4 wheel drive vehicles—the roads deteriorate the further away from Addis that you go until they become dust tracks. Loading the vehicles became a case of cramming everything in—we also had to take spare tyres and jerry cans of fuel. Once in the Afar it is very difficult to purchase items which we would deem essential, hence large numbers of loo rolls!

Driving through Addis we noticed large numbers of school children—everyone wears exactly the same uniform, but each school has a different combination of colours—e.g. one school was completely pink—pink full length skirts for the girls and trousers for the boys and a

Above—Our own food mountain—enough to feed 20 people for a week.

Below—beginning to pack one of the vehicles

pink shirt, whereas another school would have the same pink shirts but the trousers and skirts would be black. We stayed overnight in Nazaret, a town a few hours drive from Addis. The journey has to be staged according to where there is accommodation. The following day we found ourselves driving in torrential rain. The rainy season here is

June-August, so it was unex-



pected-we were quite worried as we hadn't packed wet weather gear!



Above: Unexpected rainfall on the second day of our drive up to the Afar.



Above: the fissures below Fantale Right: Wooden scaffolding around the church at Matahara

Later on the weather brightened and we were able to take a break at some rift fissures in front of Fantale, a large volcano in the rift valley. One of the first things which strikes you about Ethiopia is the amount of green vegetation—the expectation is that everywhere will be very brown and very dusty.

There is a great deal of building taking place throughout the country— the scaffolding that our attention. Its all made of wood and forms a lace cover around the buildings.



We stayed at Semera the regional capital of Afar for two nights as we needed to ensure we had the correct permissions to venture into the Afar region. Semera is an administration centre—there are government buildings and a new university which is still in its embryonic stage. The government complex also houses a guest house with very good showers! To eat we had to drive 6km back to the town of Loggia. You can ei-



ther buy Ethiopian food, or pasta which is a legacy left by the Italian occupation of the 1930's. The coffee here is also spiced with cinnamon—it tastes like mulled wine and is very good. Mosquitoes are also quite numerous, so everyone was taking malaria tablets as a precaution. We decided to visit the Dobi graben which is just an hours' drive away. This is a superb example of a rift valley—the African Rift valley on a smaller scale. It is hot enough in the base of the graben for salt to be evaporated and extracted for com-

Left: the Dobi graben with white salt deposits on the valley floor

Below: our first sighting of baboons

mercial use. We were also graced with our first meeting with baboons which can travel in family packs of up to 800.

For breakfast we had a typical dish of bread in a spicy tomato sauce. This is eaten with your fingers which was a little like eating a squidgy curry. Much of the food here is eaten with fingers—the basic food is injera, a kind of flat, greyish brown pancake with bubbles on one side. Onto this is scooped various foods such as lentils in spicy



sauces. Pieces of injera are then torn off with your right hand, some sauce scooped up, its folded over and then more sauces is scooped up before popping the whole thing into your mouth. The injera are large, so three or four people will gather round one plate making eating a very sociable event in Ethiopia.



The following day saw the final stage of the journey to what was to become base camp for the next few weeks. The tarmac had by now disappeared and vehicles were becoming lost in clouds of dust. The scenery was incredible—its hard to describe but Africa somehow has enormous skies. Along the way little settle-





Clockwise from top: the tarmac has disappeared—the roads are now dust trails; the dust created by the convoy; nearing the end of the journey; the big skies of Africa.



ments of traditional Afari houses could be seen. These are rounded huts made of a lattice work of sticks which is then covered by grasses, skins and sacking. The Afar people are nomadic, so these houses can



Traditional Afar houses—a lattice framework of sticks covered in thatch, skins and sacking.

as we arrived in Digdigga the children crowded round, curious to see who the new arrivals were. Digdigga comprises of a long main street with a mix of square houses built of wood, and round Afar houses. It has a concrete

be transported and rebuilt with relative ease. Road hazards on the drive were mostly due to animals-it was very common to see camels, donkeys, cows or goats wandering along the road oblivious to any oncoming traffic. As soon



Camel jam-typical road hazard!

school building whose grounds became our base camp for nearly three weeks. The village is situated on an immense flat plain surrounded by volcanic mountains and cinder cones. We are still unsure of why this spot was chosen for a village---it is very dusty due to the



Meran surrounded by curious children; our convoy arriving at the school





Within a few days all our tents and equipment were completely coated in dust, and everything acquired a nice tinge of brown. We had ensured

that all our supplies had been brought with us-including bottles of water for drinking and cooking. The bottles were unloaded from the truck and stored in a classroom. It looked like an enormous quantity of water, but this was to supply the scientists and support team for nearly three weeks. In such a hot climate you need to drink between 6 and 8 litres a day to prevent dehydration. There is a bore hole at Digdigga which the locals use, but the supply is obviously limited in such a dry climate, and the water is untreated. We found the people of Digdigga very friendly, and one particularly popular activity was to have their photographs taken and to be shown the results on the digital screens. This usually resulted in much merriment.

In order to access Dabbahu mountain, we needed to hire camels to carry our supplies. The four wheel vehi-



Above: our bottled water store; Left: Jon taking photographs at Digdigga and below, showing some residents of Teru their photograph.

cles could only take us as far as Barantu, a village a couple of hours drive to the north of Digdigga. To arrange for the appropriate permissions, camels and guards, we needed to visit the Administration in Teru. Teru is the regional administration centre—similar to a county or district council in the



UK. On the drive to Teru I had my first view of Dabbahu, my study area. It was amazing to finally be able to

see the mountain itself. Camels arranged we returned to Digdigga to pack supplies ready for the following day. The amount of food and water that is required for 6 days (with a day's emergency supplies) is extraordinary when it is all piled together one in place. The water is ex-



tremely heavy—such that one of the vehicles became stuck in the soft sand between Teru and Barantu. It took additional vehicles to finally set it free. We discovered an interesting use of a geological hammer though—this was used as a bolt for the tow rope! Locals appeared from nowhere to join in and help. Once



Local help trying to dig out the car and an interesting use for a geological hammer!



at Barantu we had to load everything onto the camels. Barantu itself is a brick built school and clinic—its hard to even call it a village but it serves as a central point for the surrounding Afar community. The selection of camels took some time and it was just before sunset that we finally set off. We numbered eight cam-



Clockwise from top: The village of Barantu; camels ready for loading; one of our camels; a camel train.

els and twenty humans. Once at camp we were treated to an amazing sunset , and then it was all hands to the deck to cook supper on a camp fire. Food on the trek comprised of tinned fruit for breakfast, geobars and biscuits for lunch and pasta or cous cous with whatever we could find in our supplies—tuna, tomato sauces, curry, spices etc. Jon proved to be a great campfire expert teaching the rest of us his 'Chilean two fire method'. Cooking for 20 with limited water and equipment on a camp fire was a huge learning experience. The following day we finally started looking at rocks and doing some fieldwork. The rocks on Dab-





bahu are wonderful—many of the flows are made of obsidian, a black volcanic glass. During the trek we also visited Da'Ure, just to the NE of Dabbahu. This is



Obsidian flow glinting in the sunlight. Insert—a sample of obsidian.

Back in camp, we provided a goat for the guards and camel drivers. It was fascinating to watch how every part was

Main picture—the Da'Ure vent, clockwise from top, dead trees, sulphur and other mineral deposits, sulphur deposit and vents in the surrounding hills.









Goat dinner—the goat is skinned in one piece and the skin is dried for use as a water container. It is then cut into pieces, every piece used except the four trotters.

used. The skin was peeled off in one piece and set on sticks to dry. This would be used as a water container once it had been dried out. Eventually all that was left was the four trotters. Still on the food theme, the following morning another camel train came through camp. This comprised mother and baby camels. The baby camels are really cute—very fluffy, and they have this awkward waddle like a duck when they try to move fast. The drivers milked one camel—camel's milk is considered a delicacy by the Afar—drinking it makes you strong. We also saw an Afari house move—the lattice framework of the dome





houses folds up and gets loaded onto the camel.

After six days, it

was time to return to Barantu. We were equipped with sat phones to keep in touch with base and to let them know when to send the vehicles up to rendezvous with us. In such a remote area, sat phones are essential, both to keep in daily touch with base camp to let them know everyone is ok, and in case of an emergency. However, things can still be surprising



Top left: baby camel feeding from its mother Below: Camel drivers milking a camel Above: Moving house Afari style



out here—we arrived around 3pm, but the camels (and our gear and food) did not make it until 9pm! As driving in the dark is very unwise out here, we spent an impromptu night at Barantu, A woman who was looking after some workman who were building an extension to the school showed us how injera are cooked.

The morning brought us the most amazing sunrise over Dabbahu.

Above: the long wait for the camels at Barantu

Right: cooking injera—clockwise, pouring the mix in a spiral, the completed spiral, cooking in the pot, the completed injera stored for the day in a grass basket.

Below: the stunning sunrise over Dabbahu

When we returned to camp, the helicopter had arrived which was to be at camp for two weeks. This had had to fly in from Kenya as there are no commercial helicopters in Ethiopia. Some of the science teams were working deep in the rift which is incredibly difficult to access due to huge steep sided scarp slopes.



The helicopter was to be used to ferry people, equipment and supplies to various sites across the rift.

There was some spare flying time, and as Jon was leaving the field a few days later, we took the opportunity to do a two night fly camp on the top of Dabbahu. Flying over the mountain we were intrigued by the circular structures we could see and the obviously well used track ways around them. It transpires that these were boina. These are an inventive way of creating a water source in this otherwise arid environment. We had assumed the top of the mountain would be devoid of people due to the lack of water. However, there is a healthy community living on the summit. The local people channel the vapours from a fumaroles into a circular pit. This is topped with branches and grasses, and water condenses on this and forms a pool in the base of the pit. These boina provide the only source of water on the top of the mountain. These boina were found in several locations across the summit which was a surprise as we had had no idea that of the level of venting activity on Dabbahu was so great. One area of concern is to what level the water may be

Top: our helicopter

Below: boina seen from the air

Top right: some local children proudly showing us their family's boina Below right: a boina showing the covering of grasses and branches and the open triangle with condensed water below.

contaminated by various chemicals and minerals found in volcanic areas and to what extent this may affect the health of the local population. When the helicopter came to collect us, it flew back along the rift which is to the south of Dabbahu. This was extraordinary—you can literally see how the earth's crust is being pulled apart. We were incredibly lucky being able to see the environment from the air—it's a great way of putting what you see on the ground into perspective. Helicopters are also very expensive, so to have one on this project was a tremendous bonus.

We also ensured that as many of the support staff as possible had the opportunity to fly whenever there was a spare seat.





Many of them had never been in a plane before, so they were both excited and quite apprehensive. Ejaja, one of our drivers announced he would stick to car driving in future! Good views of our campsite could also be had, highlighting the vast size of the plain in which the village is situated.

Back in camp we visited Ishmael's. This is the nearest thing Digdigga has to a café. Here you can find a calf, the household's washing hanging up drying, and customers being served coffee and cola, all in the same room. At times it became quite lively and was a centre point of the village.



Ethiopia is known as the home of coffee. Meron our cook, performed a traditional coffee ceremony for us one evening as base camp. The beans are roasted from scratch in order to make the coffee, and the roasting forms part of the ceremony. It was extremely good coffee!



During the last remaining days, I joined David for a day in his field area. We found a water carved canyon which still had water in it. The lake was drying out as the dry season continued forming abstract patterns in the mud—typical of what many people imagine when you mention 'Ethiopia'. The last days in camp were





spent sorting out rock samples and checking the labelling. The weather became very hazy due to the amount of dust in the air. This was very clear in some of the photographs we took on our last

Left: Muhammed in the canyon, below right: cracks in the mud as the last of the water dries up, below left: the sun trying to shine through the haze around Badi



helicopter flight. We flew around Dabbahu and Badi (David's field area) on a last reconnaissance.

On our journey back we took the highland road. It is not as good a road as the Awash route, but the scenery is stunning. The landscape changes continuously through high alpine scenery, coniferous forests and rich farmland.

Often firewood and bags of charcoal are sold by

the side of the road. The bags are piled so high the contents have to be stitched in with raffia. Along the



route we had our first flat tyre. Teddy our driver, fixed it in minutes, but it still caused a flurry of interest as schoolchildren gathered round to watch. The schoolmaster was impatiently ringing his bell to gather the children into afternoon school! We stopped overnight at Kombolcha and at breakfast we were joined by brightly coloured yellow birds and iridescent blue ones. The breakfast menu caused us some amusement as 'Types of snake' (snack) were listed alongside 'normal and special foul' (chicken). In fact, this was the best breakfast we had in Ethiopia with wonderful fresh mango juice! It is very difficult for the people of Ethiopia as although Amharic is the official language, each region has its own language as well, each of which are very different from Amharic. Children here often go

Above: sacks of charcoal for sale by the roadside. Below: brightly coloured birds share our breakfast



through school learning three languages; their own dialect, Amharic and English. Our journey continued, and the nearer we came to Addis, the richer the farmland. The style of the houses changed from the Afari domes, to thatched roundhouses, to stone roundhouses and finally walled com-



plexes with gatehouses. It was harvest time, and on the whole journey we only spotted one tractor. Most of the farm work is still carried out by hand, with oxen and donkeys assisting with the threshing and ploughing. In one valley we spotted what appeared to be a giant bird house. We discovered this was a hidey hole for the bird scarer—his job is to sit in this little hut (which provides shade in the heat of the day) and scare birds away from the newly planted crops in the valley! Along the route is a spot known as the 'Afar Window': a steep crevasse in the hillside which affords a spectacular view to the valley beyond. Despite being hazy, the view was still amazing, and we spotted marmots (which the locals called wood chickens) on the rocks



just below us. Back in Addis it was the number of people which was a shock. There are people everywhere. Addis is also the new 'ladaland' as the roads are populated by hundreds of little blue and white lada taxis. The best thing was having plumbing again! In the field we had mostly used wet wipes, with the occasional shower at base camp, so proper showers with hot water were bliss! The next few days were spent going through the export process for shipping rock samples and customs processes to allow the equipment to be taken out of the country. Our driver. Ejaja took us to a traditional kitfo café where only dishes of spicy mince (either raw or cooked) are served - this became my favourite Ethiopian food-its well worth trying!

Ethiopia is an amazing country, and I've been very privileged to be able to travel there, and see

so much of the country, not just within my field area. Ameuseugenallo Ethiopia! I look forward to returning in the future.

Clockwise from above: the giant 'bird house' for the bird scarer, the Afar window, Addis Ababa with its little lada taxis, view in the highlands, ploughing using traditional methods.





