

Ethiopia 2014 & 2015 – Part I – Volcano Tour

I travelled to Ethiopia in December 2014 and January 2015. This mound of drivel is part of my Ethiopian Adventure. As I don't expect anybody to read a 10,000 word 30+ page document, I have ordered it into four convenient parts.

| | Component | Description |
|----------|-----------------------|--|
| Part I | The Volcano Adventure | <p>The main reason I went to Ethiopia was to see Erta Ale as I had been fascinated by this volcano for over a decade.</p> <p>17 pages</p> |
| Part II | Roads & Drivers | <p>These deserve their own report as the drivers were amazingly good and all this on some downright terrifying roads.</p> <p>This is serious 4WD territory</p> <p>7 pages</p> |
| Part III | Photos of Me | <p>The most frequent complaint that I receive about my holiday reports is that there are virtually no photos of me¹. As I travel solo and am insufficiently self absorbed to indulge in the narcissism of the selfie, this is a selection of photos taken by others where I am in the frame.</p> <p>7 pages</p> |
| Part IV | The Birding Section | <p>After the volcano tour I did a 3½ day bespoke birding tour which was absolutely brilliant in a completely different way.</p> <p>9 pages</p> |

If you don't believe any of this and you want independent verification, one of the other participants, Dave, has a blog on our adventures.

<http://davehoggan.com/the-danakil-depression-trip-review-part-1/>

<http://davehoggan.com/the-danakil-depression-trip-review-part-2/>

This part of my holiday was organised through Volcano Discovery which offers geologic-interest walking and study tours plus expeditions to active volcanoes world-wide.

<http://www.volcanodiscovery.com/home.html>

The Ethiopian component was through Origins Ethiopia which offers tours throughout Ethiopia including the Danakil Depression.

<http://www.originsethiopiatours.com/>

¹ For the life of me I can't see why this is an issue that anybody would want to complain about.

The Danakill Depression (also called Danakill Desert) is part of the Afar Region in the north of Ethiopia. This is formed by the African Plate (western side) and the Somalian Plate (eastern side) travelling north and meeting the Arabian Plate. The meeting of the three plates is causing the East African Rift Valley as the African and Somalian Plates are split apart. The Danakill depression is the northernmost part of the Rift Valley and is expanding at a rate of 1 – 2 centimetres per year. The region is best described as geologically unstable with numerous small (often unnamed) volcanoes, regular earthquakes, hydrothermal areas, fissures and faults [1].

I would consider this one of my more adventurous trips, considering that it included an armed escort while travelling through the desert plus BYO toilet paper [2]. A map of our route is in Appendix A.

Our departure from Addis Ababa coincided with a football match, consequently we were entertained by numerous supporters for the local Addis team (coffee) decked out in the team colours of red and yellow. They were very enthusiastic, singing songs and waving team scarves, trying to get the tourists interested in local football.



We firstly travelled south from Addis Ababa (capital of Ethiopia) then joined the Addis to Djibouti Highway and travelled north east. Our first night's stop was at Awas Lodge in Awas National Park, it had a picturesque waterfall where there was definitely no swimming due to crocodiles. The first couple of days were spent driving, so after the second night at Logiya in a local style hotel, we then turned off the Addis to Djibouti Highway and drove north into the Danakill.



Cinder cones, note baboon at the top



The correct geological term for this formation is a Graben Syncline which is something that geologists would know.

The geological formations started coming thick and fast as we headed further north into the Danakill, not only did we see collapsed calderas, old lava flows, a fluoride lake, an obsidian plain and a water filled cleft caused by spreading. There was also a former Italian fort which dated from the brief time when Ethiopia was an Italian colony (or occupation) between 1936 and 1941.

Derik our driver introduced us to Ethiopian music. He has music for different times of the day in the morning it is shiny and classical Ethiopian, in the afternoon it is a little bit jazzy and in the evening it is more party. Myself, Britta and Aga were definitely in the party car and Derik started showing us how to dance to Ethiopian music.



Old Italian Fort



Petra and Derik dancing



Sunset over the salt pans – just remember deserts are fantastic for sunrise and sunset photos and on a holiday like this I just happened to be up and about at those times.

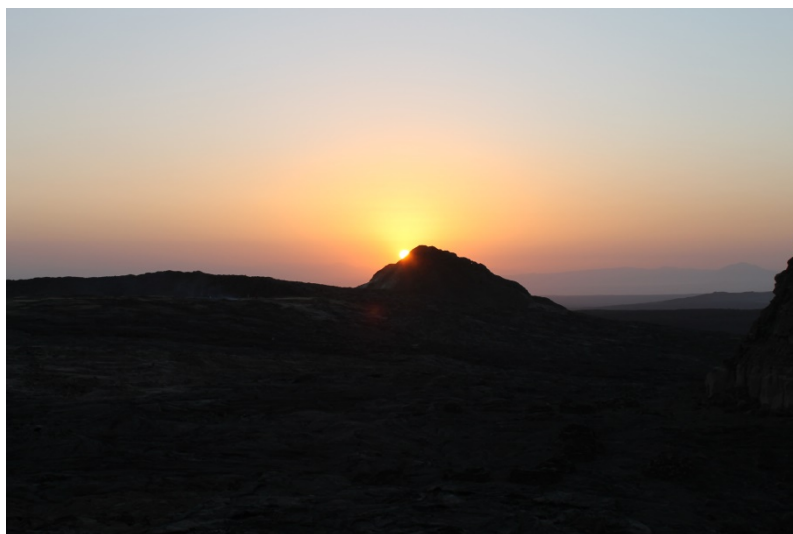
Our third night was at Lake Afrera, a salt lake. There was a delightful little hot spring next to our campsite which meant we could wash both ourselves and some clothes. The water was rather hot and not very refreshing until you got out. I would have taken a photo however there never appeared to be a time during daylight hours when it wasn't full of naked Ethiopian men.

We left the comfort of the bitumen and headed out into the desert toward Erta Ale, a distance of approximately 60 km over the desert floor and lava flows.

The base camp at Erta Ale was also a military base and comprised local buildings. These were surprisingly comfortable in the heat with the dry stone walls were made from lightly finished lava stones. This allows flow-through ventilation, furthermore the heat from the sun does not penetrate inside, and therefore inside is at the ambient air temperature with a cooling breeze. Apart from the heavy tarpaulins on the roof they pretty much are made from local materials.



That evening we walked up Erta Ale and enjoyed another delightful sunset. The walk was described as over a lava flow and I was expecting something like Kamchatka with car sized boulders. As Erta Ale is a shield volcano, meaning it's very flat due to the high viscosity of the lava it was much easier walking than I originally anticipated, mostly over lava and ash. Much of the Danakill depression is actually below sea level and the peak of Erta Ale is 690 meters above sea level so it was a fairly easy walk.



With our gear, including the all-important water, safely being carried by camels we commenced the walk up after sunset. Our local guide padded ahead of us, he had a torch however he didn't use it until we were nearly at the camp. We stumbled along with our torches wondering how the heck he knew the precise way².

To describe the accommodation and facilities as basic is a definite understatement. The shelter consists entirely of local style one room huts. We were pretty much told to pick a vacant shelter that we liked the look of. I selected one which I found out later was located next to the chief of Police/Army, this was fine as it was mostly lights out by 9:30; however when they started talking on their walkie talkies it tended to wake me up. Actually I can't complain, others found that shelters which had been previously used for cooking came with free mice.

The conditions in the shelters got to some people after a while, but while it was bearable it really was the wind and the dust which were the most annoying. Whenever a camel train arrived or left it resulted in a cloud of dust. Some attempted improvements to their shoulders by using rocks to plug some of the gaps. The way some people went around collecting rocks made me think that in a previous life they had been Adele Penguins, who are notorious for snitching rocks from other penguins' nests. Although getting caught snitching rocks from others shelters was probably social death.

² Actually he followed the trail of camel poo as it was a fairly well used path



Can I interest you in this delightful Des Res, it comes complete with security conscious neighbours and flow-through ventilation. As you can see it presents delightfully in the dawn light. My shelter is on the left and if you look closely you can see my T-shirt hanging on my little clothes line. BYO door, which was a perfect use for the sarongs that many of us had brought.

Seriously, that clothes line was brilliant; it got all my stuff off the ground during the day

which meant I wasn't snoring in grit, etc at night. Actually given the conditions, snoring might have been a bit of an overstatement as there are others that found the conditions precluded any kind of slumber – probably sex too which might have been why they were so grumpy. Enku, our Ethiopian guide, had a look at my shelter and pronounced it "very domestic".

In keeping with the rustic nature of accommodation there were also no formal toilets. You basically have to find a spot where some degree of modesty could be assured, which was somewhat difficult as there were plenty of armed guards keeping watch against potential attacks³. I started off going by the camels and discovered that firstly they don't like having a torch shone in their eyes at night and tripping over the sleeping camel drivers annoys them even more (good thing I don't understand Ethiopian).

Britta (one of the Germans) discovered a delightful little place to "pick some flowers". It was a ledge bounded by low stone walls and a sheer drop into the upper crater with a view to the volcano, which was particularly dramatic at night. There was also no running water, as everything had to come up and down the volcano by either people or camels. This all makes it sound like it was horrendously hard, however conditions were no worse than the average Australian fishing trip except for the lack of cold beer.

Enough of the facilities, what I really came to see was the volcano as Erta Ale currently has an active lava lake in its main summit crater. An active lava lake has been (scientifically) observed since 1967 and scientists consider that it has been active since 1906. It is one of 4/5 active lava lakes on the planet⁴. The lava lake releases large amounts of heat however the actual amount of lava that erupts is relatively small. It has been proposed that the



³ There had been an incident in 2012 when a group of the Afar Revolutionary Democratic Unity Front (estimates vary from 30 to 200) killed 5 tourists and scientists plus abducted a number (later released). Cue to jokes about the Judean Popular People's Front.

⁴ Hawaii, Erta Ale, one in the Congo, and Mt Erebus – I don't know what #5 is

magma instead of erupting flows into the dikes and sills which are formed by the Earth's crust expanding [3].

It was totally amazing to stand only metres from the edge of the lava lake and just watch the eruptions, technically called lava fountains. These are caused when gas rich magma comes to the surface. The first day was relatively quiet with only small fountains breaking the surface of the lava lake. A second day things were far more dramatic and we were treated to a regular series of fountains some lasting up to 10 minutes long. The dark surface of the lake is where the lava has (marginally) cooled however it is still around 1,000°C. When a fountain breaks through it's more of a burbling whooshing sound rather than explosive bangs.

The heat from the volcano was amazing some of the photographers found that bits of their gear had melted, and they were still 2 – 3 metres from the edge of the lava lake. Somebody took the temperature and said it was consistently over 60°C.

This photo gives you an idea of the perspective of the previous photo it was taken from a small hill which served as a particularly good lookout. The people standing near the edge are approximately where I was standing. You can see a crack running roughly parallel to the edge of the lava lake and you pretty much stayed on the other side of it as that was the most likely to fall in. There is a video taken earlier in 2014 of a section of the rim falling in, it's the sort of video that makes you realise the risks that you are taking.



The movement in the lava crust is caused by an upwelling of the magma and it's a bit like watching plate tectonics in action. This can force apart two plates of lava one of which then flows under another plate which provides a dramatic example of subduction in action.



At night it was even more spectacular as the cracks in the lava surface lit up. On the last day some of the group went down earlier, I stayed with the remaining group which allowed me the complete indulgence to spend an evening just sitting there watching the volcano. It's a bit like a fire when you are quite happy to watch it crackle away for hours. Erta Ale was always doing something so there was always something to watch.

The volcano also allowed us to do something deliciously naughty, namely throw our empty drink containers and other rubbish into the caldera. There is something naughty about throwing your rubbish over a cliff. What would have been more interesting is to see whether plastic drink bottles vaporise before or after they hit the lava pool. However this would have required somebody to go round the other side of the caldera and throw the container in while we watched, as none of us were game to walk the right to the edge⁵.

Despite it being a desert there was some other wildlife; I saw a squirrel like creature in the main crater plus a White Crowned Wheatear warbling on a bush. At least I didn't have to put up with mice in my shelter.



Pele's hair over the lava flow



Close-up of Pele's hair and a dead spider

Pele's hair is a volcanic term which originates with the Hawaiian volcanoes and describes when the lava has a very high silica content and eruptions form very fine strands. It's a bit like sugar which can be toffee or fairy floss. When a lava fountain was happening you could at least see it forming blowing away from the fountain. The fibres are actually very sharp and you certainly wouldn't want to sit on them as they penetrate clothing and form rather painful splinters. I had a number of my fingers and they were the sort of splinters that you have to chew/suck out.

As the volcano is constantly active it is also spewing out a variety of gases. Downwind was exceedingly painful without a gas mask and we were told that we wouldn't be allowed close unless we did have a gas mask which provided protection against acid gases (SO₂, HCl). You certainly needed it as you immediately started wheezing, eyes watering, etc the moment you went downwind⁶. The gases left a trail of gunk on our cameras, etc. Dave very obligingly ran a camera cleaning service when we got to Dallol which cleaned the muck off our lenses, and other surfaces. My sunglasses however weren't cleaned and now have a delightfully speckled appearance.



Aren't they delightful? Chris and Petra proving that a couple that does things together begin to resemble each other over time.

⁵ Actually we weren't bloody stupid enough, I did see somebody from a latter group who walked almost to the edge and looked over it made my knees go weak just looking at him. I didn't have enough guts to go closer than three meters from the rim.

⁶ I have decided to hang on to my gas mask; it could be frightfully useful if any undergraduate decides to cut a bottom burp in my office.



Earlier the main crater had two active lava lakes however the northernmost one became inactive around 2012. As it became inactive there was still pressure from the magma below which burst through a weak spot in the crust to form a Hornito, it sort of squeezes out, like toothpaste. This one was still smoking from 2012 and formed over a period of about a week. Enku was there when it happened and said it was amazing to just watch it grow.



There were a number of Hornitos around, and here is one which is much older. It comes complete with Ethiopian soldier and posing British tourist, a.k.a. Dave⁷. They are quite amazing formations and would make a fantastic feature in someone's front garden.

Erta Ale is approximately 70 km from the Eritrean border and there is a demilitarised buffer zone between the two countries following the civil war⁸. Consequently the camp is crawling with soldiers, not only do we have our own guards that come with our tour but there are soldiers stationed on the volcano. They are a specialised force and rotate with 4 days on Erta Ale and then 8 days in another location

On my last night there was a possible sighting of persons unknown, consequently there was a lot more activity around the camp. So on my last night I laid in my little shelter looking out my doorway to a perfect crescent moon and was reassured by the regular sound of sandaled feet padding past my doorway.

Later I showed the others photos of Ayres Rock when I stayed there in 1969, okay it is called Uluru now. The accommodation facilities then comprised a campsite and the only concession to tourists was a caravan selling cold drinks and souvenirs. You could basically walk anywhere,

⁷ The firearm was a Chinese made submachine gun.

⁸ Which was probably the last time that you heard of Ethiopia when you watched that Live Aid concert and listened to Bob Geldof swear. Ethiopia has definitely changed a lot since then.

even camp in a cave and climb the rock and just do whatever. Fast forward to now, where there is a luxury resort and the access is much more controlled. All the Ethiopians agreed that in the future Erta Ale will become a lot more like modern Uluru. This makes me feel exceedingly lucky having been able to experience such amazing places before the tourist hordes descended.

The next morning we bounded out of bed at approximately 4 AM, dined on water, biscuits and oranges and walked down to the base camp where the earlier group had spent the night and our cooking crew had prepared a delicious cooked breakfast (pancakes).



Sunrise descending from Erta Ale

The food while we were camping was excellent. There was a three-person crew comprising of Muscara the Cook, her assistant and the driver/assistant. Muscara is virtually the only female cook that works in the Danakill and she was excellent. We enjoyed three meals a day, comprising a cooked breakfast, three dishes for lunch plus three cooked dishes for dinner with fruit for desert. There was also ample Ethiopian tea and coffee with all meals. There was very little repetition of the dishes and it was amazing that she did all this with no electricity and no running water. No, I didn't get sick.

The distance between the base camp at Erta Ale and Dallol it is approximately 80 km as the crow flies, however the "road" is closer to 110 km. We then drove north through the Danakill, basically it comprises the old seafloor which is very fine pale sand, which in Australia we would call bulldust. Over this there have been a number of flood basalts which rather than erupting as a volcano they have erupted along fractures and run over the land in sheets. Mostly we travelled over the fine bulldust which meant we were continually winding our windows up and down; down when driving, then immediately winding them up when stopped as our cloud of dust caught up with us.

The Danakill Depression is part of the Afar Depression and is caused by stretching of the crust and is below sea level, it is only the mountainous areas in Eritrea and Djibouti which are stopping the Red Sea from flooding it⁹. It is a triple junction of the three plates and along with Iceland are the only places where you can see a mid ocean ridge being formed on land.

⁹ Which will happen at some (geological) time.



We had a delightful little lunch stop under a clump of palm trees somewhere in the middle of the desert. It was quite an oasis although there was no water but was very pleasant to dine under the palm trees.

By this time the Germans were beginning to laugh at my jokes. Tobias, the German co-guide, commented that he found the little oasis a very pleasant place to stop and could

imagine spending longer time there if only he had a couple of Ethiopian woman and a camel. My response was to ask what he intended to do with the camel and that this was an aspect of this character which wasn't otherwise evident.

As a Kiwi who has lived in Australia for nearly 50 years I have had to endure numerous sheep jokes [4]. It was easy to recycle them now as camel jokes and given that I had a 50 year supply they started rolling off my tongue. There were no other Australians on the tour to pull me up and this meant for the first time in my life I could basically dish out bestiality jokes with complete impunity. Naturally I milked the situation for all it was worth.

We made it into the village of Hamad Ela at Dallol where there was, joy of joys, washing facilities (bucket with a dipper) and an army bar (there was a garrison there) which sold "cold" beer. It was fabulous to wash off the accumulated grime and make an attempt to clean our hair. But the beer was a real selling point. Our campsite consisted of a local style building for cooking and gear storage, as the likelihood of rain was so remote as to be negligible we slept out in the open. At dinner our lights attracted insects which in turn attracted small bats which darted in and out. They were alarming at first but we became used to them.

You'd think that after Erta Ale, Dallol would be a complete anti-climax. This couldn't be more inaccurate. Dallol is an actually a volcano, however it is covered by approximately 2 km of salt. As the magma wells up it meets the water percolating down and forms a very active hydrothermal area. The salts dissolve in the water which results in the most amazing formations. There are numerous active and inactive areas all of which are interesting in their own way.





The abandoned town of Dallol is where the title hottest desert was awarded as it has the annual mean temperature of 34.4°C which is considered the highest of any inhabited place. There were plenty of Ethiopian military as the border with Eritrea is approximately 30 km away. I assisted them by lending them my binoculars in between watching Little Swifts catching insects on the wing.

The next day we went to an eroded canyon which was originally formed like the hydrothermal area over many years. As the "hotspot" moved it dried out and was eroded by the wind and occasional rain.

It is the most amazing sight imaginable. If someone showed you a photo of it you'd think it was CGI generated for a science-fiction movie, and didn't really exist on this planet.



The floor of the canyon is flooded each year which gives amazing flat ground surface, almost as if it has been artificially levelled.

There was a water formed cave which we walked/clambered through to a small canyon and then climbed out. You could have spent the whole day exploring the canyon alone.

There was also an area of acid lakes, these are formed by heated water being forced through vents and depending upon the location of the event different minerals are dissolved resulting in different types of acid.



What was really interesting was what appeared to be an eroded gully. Enku said that it had formed in the last couple of months and it was not formed by erosion but by expansion so we must be somewhere near the triple junction. Probably at some stage during the day I had one foot on one continental plate and one foot on another. The only other place that you can do this on dry land is in Iceland which of course Dave had done

Dave took my strategy of not washing and jettisoning to a new extreme, he managed to get 5 days from this shirt whereas I only managed a paltry 4 days out of my white shirt¹⁰. He did mention that with the benefit of hindsight, white wasn't necessarily the best colour for this type of travel strategy [5].

The army bar was another highlight of Dallol and we patronised it every evening. The indoor section was



Dave and the Shirt of Doom, every stain tells a story



Petra, Chris, Dave, Britta, Aga at the army bar

rather busy and noisy with the TV playing and we often sat outside. The owner made sure we were all comfortable with chairs/crates etc. The local beer St George Lager was particularly refreshing after all our adventures. It featured a delightful drawing of St George slaying a dragon on the label.

All the tourist camps were basically organised around a largish hut in which to cook and store gear etc. We slept

¹⁰ Any longer and the garment would be capable of independent locomotion and intelligent speech. Admittedly my 4 days includes swimming in the hot spring which could count as washing.

out in the open on local style raised beds with a foam mattress. It was delightfully comfortable and we slept much more soundly than Erta Ale except for those who were next to someone who snored. There are a series of these camps and next door to us is a group of Japanese. Their cook had one of those silly white chefs' hats (which reminded me of the Swedish Chef out of the Muppet show) and instead of sleeping out in the open their crew had erected a row of tents. They also had a tent for showering and a lime green toilet tent.

We came back from the bar laughing and joking and started dancing to Ethiopian music. As it was windy the row of Japanese tents started leaning in the wind, what was even funnier it was that the lime green toilet tent was practically dancing in the wind. The sight of a lime green Japanese dancing toilet tent struck us as particularly hilarious and we fell about the place shrieking with laughter. Until one of the Japanese went to use it and we tried to be a lot more circumspect by just giggling.

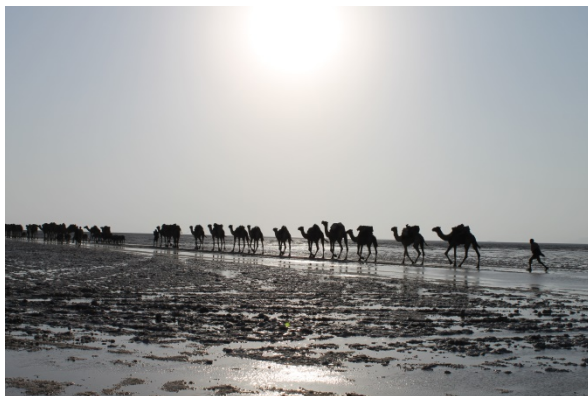


Sunrise over the salt flats

Somebody really should have told them that when using a tent you should be careful where you put the torch, as your silhouette can often give away far more detail than you intended.

By now I had the most amazing heat rash imaginable, from my groin to my ankles was a mass of tiny little blisters. They were not too itchy but I had to be careful not to scratch them. Furthermore I was wearing a skirt for Dallol which was much cooler than trousers. I never had anything like that in Port Hedland and it regularly got to 50°C there¹¹.

This is definitely a contender for the world's worst jobs, bear in mind that we are in the “world's hottest desert”. Salt from Lake Asale is extracted by the traditional method which as it has been done for many centuries. The salt is manually cut out by hand and fashioned into regular blocks.



The camels leaving for the salt at daybreak



The sheer numbers were amazing

¹¹ The tour also included 8 litres per person per day in the desert. And I can report that it is possible to drink that amount and not have to pee excessively.

It is then transported in stages by a camel and donkey train, with the first leg a 50 km stretch out of the desert to Breahile. There is a continual round-trip of camel trains to the lake and taking salt back. The camel trains seemed to be organised into groups of up to 20 camels/donkeys with someone at the beginning and the end.

The salt workers basically work out in the sun all day lifting and shaping the salt blocks into the same regular shape. They work in teams of 3 – 4 with one person lifting the slabs and the others fashioning them into regular blocks. And they pretty much work continually; they certainly didn't like being interrupted by tourists.



Cutting up the salt and fashioning it into regular blocks



Camels and donkeys waiting in the midday sun

The camel trains wait till late in the day before setting off so that they pass through Hamad Ela around sunset. Bear in mind their first drink is probably still 20 – 30 km away as they start sending the eastern side of the Rift Valley.



Camels and donkeys leaving for Breahile at sunset



After all that nature the tail end of our tour comprised culture. We drove up the western side of the Rift Valley from the Danakill, through Breahile (where we farewelled the cook & crew) then onto Wukro.

Unfortunately in our first night back in civilisation after taking advantage of the hot and cold running water and the bar facilities a number of us were definitely poorly the next morning. So much so that we wished we tipped the cook & crew a lot more as in comparison to the food at the hotel theirs had been outstanding¹².

¹² And that fish definitely tasted worse coming back the other way than it did going down the first time. Actually I'm probably jumping to conclusions, it is evidently usual to get sick when you travel in one day from the Danakill which is below sea level to over 2,000 metres in the Highlands.



Priest at Wukro Cherkos

Notwithstanding all that, we headed off to get some culture at the local churches. Ethiopia is predominantly Ethiopian Orthodox Christian. Ethiopian Christianity developed in virtual isolation from the 4th century when it was introduced to the 15th when the Jesuits arrived. It is fundamentally Christian however the rituals, etc show many ancient Jewish influences. In pre-Christian Ethiopia there were many ancient Jewish sects from where this influence is derived.

The rock hewn churches follow a similar three room architecture, with the first room for the general public, the second room for the priests and worshippers and the final room for the holy of holies, for the priests only. The churches are all still in use, and I had to wait for a service to end before I could go into one.

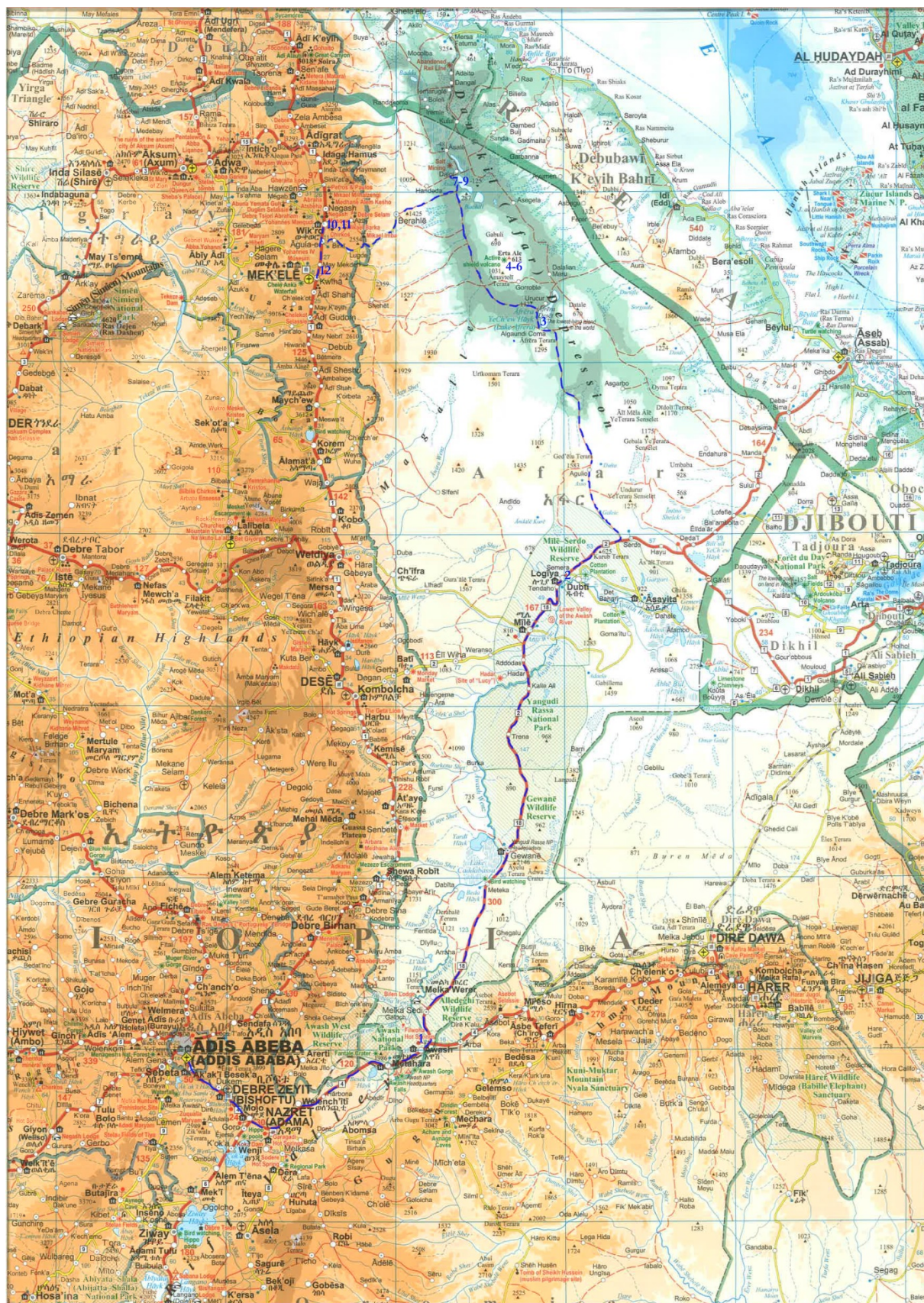
After my birdwatching tour I arrived back in Addis on the 5th January (my birthday) and checked into my hotel. After everything it was a delight to be in fluffy bathrobe surroundings and thoroughly clean myself up. Afterwards I decided to have a light supper downstairs in the bar and ordered a salad along with a particularly delicious gin and tonic.

As I often travel at this time of year I am quite used to celebrating my birthday on my own and I figured the G&T was a particularly good treat to have. Even more delightful, the hotel surprised me with a birthday cake (Black Forest) and a rendition of Happy Birthday on the piano.

It was a fabulous end to a thoroughly fantastic holiday.



Appendix A – Map



Our route is marked in blue with each night numbered.

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