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## ACCOUNT

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## ACCOUNT OF A TRIP TO MOUNT EILO, ON THE NORTHERN FRONTIER OF THE GADABU'RSI COUNTRY, WITH A SKETCH MAP SHOWING THE ROUTES.

When I had the honour of addressing a meeting of the Rojal Geographical Society on the 29th June 1885, I expressed the hope of being able, before long, to explore Mount Eilo and its celebrated cave, about which so many wonderful stories had been told me in Zaila. Difficulties in the political situation prevented my carrying out this intention till February 1886.

Shortly before this I had sent out deputations to various sub-tribes of the Gadabúrsi and Habr Awal, who, having committed several raids, were shut out from Zaila, Rerbera and Bulhar ; but as their exclusion had the effect of injuring the trade of Zaila, I was anxious, if possible, to arrange terms with them which woild be satisfactory both to the townspeople and the Beduins. The Per Núr sub-tribe of the Gadabúrsi having just accepted my terms, I thought the present a good opportunity for exploring their country and personally testing their feelings. Two days before starting, a kafila of the Ror Muhammad sub-tribe of Gadabúrsi arrived in Zaila, and as my route lay througen their territory, I asked their principal Akils to accompany me. At the first interview they expressed their willingness, but the next day they camo (evidently instwcted by certain intriguers in the town), and said they positively refused me permission to travel in their country. This being. a decided breach of the existing treaty between us and the Gadabúrsi, I soon settled the matter by arresting seven of the chief men of the kafila, to be kept as hostages till my return.

All arrangements being then completed, I started from Zaila at 4 P.M. on the 1]th February 1886. My escort consisted of 25 men of the Sudani Detachment under their officer Faraj Effendi, and five men of the Kafila Escort Corps. As guides and abbans or protectors, I took two Akils of the Eesa tribe named Gírrhé Egal and Wíl Ahmed; also Warfa, father of the present Ugáz, or Chief, of the Gadabúrsi tribe, and Saíd Magal, a native of Zaila. I travelled on an Arabian riding camel of my own with an Indian double saddle, an Arab sepoy sitting behind me. My interpreter, Saíd Murjan, and my Portuguese cook rode mules.

Warábod, our first stage, is 8 miles from Zaila; the road, which is flat and uninteresting, has already been described by others. We arrived at 6 p.m.

Next day (12 th February) we started at 8 A.M., travelling due south, and at. 9.45 A.M. crossed the dry bed of a river called Ash-A'dda, which terminates in a creek at Ras Maskan. Throughout this march our route lay along a plain covered with coarse grass and scattered salsolaceous bushes. Sand-grouse and hares were the only game I saw. Turning gradually to the south-east, we arrived at Udawadiri at 12-30 p.m., but the baggage animals did not arrive till 1-15 P.m. The water.here, which is faintly brackish, is found about 8 feet below the surface of the dry river bed, in which several rude wells have been dug.

We encamped in the river bed, and in the evening 1 strolled about to view the neighbourhood. Numerous water-courses, averaging about 12 feet in width and 3 feet in depth, lead into the main wadi on both sides; their beds are loose sand, and the sections exhibited by the scraped banks show the soil to be a silicoargillaceous alluvial deposit, with scarcely any pebbles or boulders. Its natural fertility is proved by the unusual size and laxuriance of the salsola bushes and other plants. The wild water-melon, called unun by the Somal and hadagdag by the Arabs, abounds, but is, I believe, useless; its taste is exactly like that of quinine. Another plant which grows abundantly in this neighbourhood is that called by the Somal wanäd and by the Arabs rên: its white flowers or seeds are much used in Zaila for stuffing pillows and cushions. Here I saw several bustard and a great number of hares, and at night I heard the cry of jackals for the first time in Africa.

Nex't day (13th February) we marched from Udawádirí at 6-40 A.M., the road running nearly due south for the first half of the route. The country is a vast
grassy and waterless plain, intersected by a number of dry river beds, sandy and shallow,-all running north-east, the direction of each being indicated from a long distance by its fringe of bright green foliage. The most conspicuous trees are the casuarina and maro (Ar. Marakh), a small, green and leafless tree; its long, thin twigs tied in bunohes, make excellent brooms, and its inner bark is a valu. able fibre, which the Somali women bring to a proper consistency by chewing. It is a common sight to see a number of women driving camels or drawing water, mursing their babies and at the same time chewing bunches of maro bark, with which they make ropes, mats and other useful articles. The flower (if such it càn be called) also yields a fibre which appears very much the same as cotton. The castor-oil plant also grows along these river banks, but the Somal are iǵtqorant of itg use.

The country in the neighbourhood of the river Afáss, which we crossed two hours after leaving Udawadirí, is slightly undulating, and seems as if intended by nature for an agrjcultural country. I feel sure that water would be found at 20 feet or less by sinking, wells in any of the river beds. Antelope abound here, and I saw two waraba a long' way off.
,Four hours after leaving Udawádirí we passed over a low and somewhat sandy ridge running N.-E. and S.-W ${ }^{\text {r }}$ rising in a very gradual slope on each side to a height of about 20 feet above the plain. Then comes a ghastly dead level plain above $2 \frac{1}{2}$ miles broad, utterly devoid of vegetation. At the time of my visit it was soft and slippery and very difficult for camels. I am told that in the rains it is quite impasmable. It is probably connected with one or more fiumaras, which lose themselves in the plain a little further to the southward, und it.terminates in the creek, at 'Khor Kulangárit. If excavations were made, I stould expect to find a sandy river bed beneath. After this bog comes a tongue of low but dry ground, sparsely covered with herbage, in which are the wells called Haragjíd. As we approached them I'had a long shot (but without effect) at two wart-hog which had just been to the wells for a drink. We encamped close to the wells at 11.40 A.M. This point is S.S.W. of Khor Kulangárit, and about 2 miles distant from it.

Between the tongue of dry land abovermentioned and the sea (distant about one mile) runs a muddy tidal creek-a branch of the Khor, or creek, of Kulangárit. A saline efflorescence is distinctly visible within 100 or 200 yards of the wells, and I am unable to explain why there should be fresh water in this unusưal situation. Why it happens that fresh water is always to be found along this portion of the coast-line within a mile or two of the sea, and yet be conspicuous by its absence over the inner portion of the maritime plain is a question which 'I shall endeavour to solve further on. The immense quantities of fragmentary sea shells disclosed in the well sections here are abundant proof that this was formerly a sea bed:

There being no water on the road after this for $1 \frac{1}{2}$ day's march, the Akils tried to persuade me to start in the afternoon and make as much progress as possible by sunset; but as Kulangárit was so close, I thought it a.pity to leave the neighbourhood without seeing it. On a former occasion I narrowly escaped shipwreck when attempting to reach Kulangarit by sea in a buggalow during stormy weather.

In the afternoon I started on foot with a few followers, waded the muddy creek, and crossing a series of high sand hills, reached the beach in half an hour. I then took careful barometrical observations at the sea level, placing the aneroid on the sand at the high-water mark.

After a smart walk along a firm sandy beach,we reached the creek, near which were two or three large beams, evidently some of the remains of an unfort nate steamer.

The entrance to the creek is abput 100 yards wide, and the depth of wated at balf tide, about 4 feet. Opposite the creek entrance seaward the surf is somewhat less than on each side of it, and I think that boats drawing 3 feet of water, if carefully steered S.-W.; could enter the creek for refuge in stormy weather. When entering, boats should keep to the left hand side, and they could
afterwards turn sharp to the right, and take shalter under the lee of a sandy spit which forms the N..W. side of the creek. About 150 yards inside the entrance a bar of soft, friable sandstone, running N.N.W., partly separates the outer from the inner portions of the creek. This bar, being covered with a slimy deposit, is difficult to walk upon, and the incoming tide rushes over it like a mill-stream. The inner portion of the creek has a black, muddy bottom, and, as usual, is bordered by a thick growth of mangroves. The two chief branches run parallel to the beach, and are separated from it by sand-hills 15 or 20 feet high.

Some of my Somali followers, while wading in the creek, managed, very skilfully, to spear a shovel-nosed shark and six or eight long-tailed stinging rays, which made an agreeable addition to their evening meal ; but I obstinately refusec: to accept any for my own use.

After fully exploring Khor Kalangárit we made for our camp in a straight line, wading through shallow water and deep black mud.

Next day (14th February) we started at 7 A.M., travelling due south, over a vast level prairie covered with clumps of long, coarse grass, which make the track very tortuous. We saw numerous herds of large and small antelope, but always far off. Of small game, there were hares,' quail and partridge.

Shortly after passing the bed of the large river called Barrégíd we halted for half an hour at a place where there were several large hollows like dried-up lakes, but I was informed that the rain-water does not remain in them any time. Close by, on a piece of rising ground, was a small cemetery enclosed by a circular fence of cat bushes. Most consplcuous among the graves was that of Sharmárké, Gáshán Ada (Sharmarrké of the white shield), a celebrated elder of the Bah Habr Músa section of the Gadabursi, who died about 20 years ago. The grave was surrounded by slabs of beautiful lithographic, limestone brought from Eilo, and covered with sea shells brought from the coast, distant at least 10 miles.

Having crossed the dry rivers Kurúrhé and Súradlai in the course of the afternoon, we halted for the night at sunset on the open prairie.

Next morning (15th February) when travelling up the bed of the river Gsd Kúran we came upon the tracks of a large number of horses, and some of my companions at once pronounced them to belong to the Rer Shirdon section of the Habr Awal, who had come to loot the Eesa and Gadabúrsi. We afterwards heard that this was true; but the marauding party finding the Rer Núr too strong for them, had made the best of their way back after stealing only two or three sheep. I had fully determined to attack them if we met them.

On reaching the river Adád, I saw for the first time the tracks of wild elephants. Here we halted for breakfast in the midst of scenery beautiful beyond my powers of description; but Burton's graphic description of a similar scene elsewhere so exactly represents what I eaw in this place that I take the liberty of quoting verbation from his "First Footsteps in East Africa ":-
" Its course is marked by a long line of graceful tamarisks, whose rivid green looked doubly bright set off by tawny stubble and amethyst-blue sky. These freshets are the Edins of Adel. The banks are charmingly wooded with acacias of many varieties, some thorned like the fabled Zakkum, others parachute-shaped, and planted in impenetrable thickets: huge white creepers, snake-sbaped, enclasp giant trees, or connect with their cordage the higher boughs, or depend like cables from the lower branches to the ground Laxuriant parasites abound : here they form domes of flashing green, there they sarround with verdare decayed trunks, and not unfrequently oluster into sylvan bowers, under which gratefol sight! appears succulent grass. From the thinner thorns the bell-shaped nests of the Loxia dapend, waving in the breeze and the wood resounds with the cries of bright-winged chotisters. The torrent-beds are of the clearest and finest white sand, glittering with gold-coloured mica, and varied with nodules of clear and milky qnartz, red porphyry, and granites of many hues. Sometimes the centre is occupied by an islet of torn trees and stones rolled in heaps, eupporting a clump of thick jujabe or tall acacia, whllst the lower parts of the beds are overgrown with long lines of lively green colocynth."

This exactly describes the scene which presented itself to my view as I sat in a camp chair under the shade of a large tree on the right bank of the Adád while my breakfast was being cooked.

One of the Sudanis, who had climbed a tree, reported that he saw a number of cattle in the neighbourhood. As this implied, the vicinity of a village, I sent some men to reconnoitre, and they soon returned with some men of the Rer Nár, who gave the welcome intelligence that there were four of their villages within a mile or two of where ${ }^{\text {we }}$ were. By this time our camels having been collected and re-loaded, we started up the bed of the Wádi, and soon met straggling parties, consisting principally of young boys and girls tending camels, cattle and sheep and goats. One of the girls we met is betrothed to Girre Egal-n circumstance which afterwards caused me some annoyance, as he seemed to be always impressing upon me the necessity of treating this family of the Rer Nor- with exceptional liberality, his secret object, of course, being to lessen thereby the amount of dowry which he would have to pay.

Numorous young camels (many of them, apparently, not more than a month old) reclined in the shade or frisked beside their mothers, who were quietly grazing on green grass, or nibbling choice morsels from the trees and bushes. The whole scene' was eminently suggestive of rural felicity.

Leaving the river-bed, and turning to the left we soon found ourselves in the midst of four villages belonging to the Rer Fárih section of the Rer Núr. 'The whole of the village community turned out to see the unusual sight.

- The Sudanis immediately proceeded to clear away the bushes and small trees, using this material and large thorny branches to form an abbatis round our camp. The enclosure had two entrances, and a sentry posted at each prevented the people from crowding in, and during my stay none of the villagers were allowed to enter the camp with arms.

Then arrived presents of sheep and sour milk, fresh milk being promised at evening milking time. Five girls from each of the four villages were sent to the 'nearest well (about two miles away) to fetch girbas of water, and were paid for their trouble in beads.

At night I went to a cleared spot near one of the villages to witness a moonlight dance performed in honour of my arrival. The performers, who were of both sexes, displayed a tremendous amount of energy, and made a most deafening noise; but in regularity and variety the performance was mach inferior to what I have been accustomed to witness in Zaila. Still, enacted in the jungle by moonlight, the scene was picturesque.

At tattoo, the Sudani sentries, according to their custom, each discharged a blank cartridge in the air, after calling out the number of his post. This caused a panic among the dancers; but being reassured, they soon went on with renewed energy till I requested them to let me have a little sleep after a long march.

The people we met to-day are the first buman beings whom we have seen since leaving Warábód.

Next morning (16th February) all the warriors of the four villages, numbering about 150, assembled with much noise in front of the camp, and went through the usual war dances, the head men chanting long complimentary speeches, to which I made suitable repltes, and then distributed presents of thobs and tobacco, with some glass beads for the ladies.

Owing to faulty arrangements on the part of my Akils I was unable to make a start tilt shortly after noon, when, directed by a special guide, we marched eastward, scrambling through very thick, thorny jungle, and across numerous fiumarns--some broad and shallow, others deep and narrow. Seldom any track'to be seen till at' 3 p.u. wie passed round the west side of a conspicuous detached hill called Kúhí, rising about 300 feet above the plain, and evidently of metamorphic formation. Then we came upon a well-beaten track through thick jungle, and across numerous small feeders of the main stream till we reached the magnificent valiey called Bárrhé, running round the. eastern extremity of Eilo. Here we were gladdened by the sight of water in wells in the river-bed, which, in this place, is about 400 yards broad, and is covered with fresh traces of elephants.

Proceeding about a mile ip the river-bed in a southerly direction, we found a small perennial stream trickling along under the right bank of the Wádi, and there I selected a position for the camp in the Wadi as far as possible removed from wells and stream.

Though the water in the stream is beautifully clear, it is much defiled in the upper part of its course by elephants and other wild animals. But excellent water is procurable anywhere by scraping with the hands a hole two feet deep in the sand. For my private supply I made a hole myself, and had it covered with branches of trees.

While I was at dinner a lion was reported. I fired at him at 150 yards; but the moon being partially obscured at the time, and bushes intervening, 1 missed him, and he ran off into the jungle. Large fires were lighted round the camp to keep off any more such visitorg.

Next day we started at 8 s.m. W.N.W. np the bed of the Bárrhé with Eilo close on our right and a mountain called Mairi, about 1,000 feet high, on the left. The general direction of the valley is N.-E. and S.-W. Soon it began to widen out sending off numerous branches in all directions. Our road led us up the Koton valley, covered with most luxariant and wonderfully varied vegetation ; but being ignorant of botany, I am unable to say anything about it; but I collected and dried a few specimens of curious plants, some of which are used medicinally by the natives.

After travelling about four miles the jungle became thicker as we advanced, and progress was slow ; then we went up the bed of the Koton river, which being full of large rocks and smooth boulders, was equally dificult. Running water appeared at intervals in the river-bed, and occasionally stagnant pools. The jungle on both banks was almost impenetrable.

At 10-15 A.m. we reached the head of the valley and the cave which I had so longed to see; my tent was pitched within 20 yards of it, under the shade of some lofty trees on the right bank of a clear stream running from a tepid spring close to the cave entrance.

The Akils then said to me: "We have conducted you all this distance to the cave, and now that we are here, who is to enter it?" I replied : "The chief object of my coming here was to explore this cave, of which I have heard so many wonderful stories; and I am determined not to return to Zaila till I have explored it as far as possibla: if no one accompanies me, I shall enter it alone."

After breakfast, discarding my coat and boots, armed with a revolver and a large hunting knife, with a lighted candle'in my hand I crawled into the cave. The entrance is about four feet high and the same in width; and these dimensions are not exceeded in any part. Saíd Magal and my plucky interpreter, Said Murján, accompanied me, dragging after them a lovg rope which was slowly paid out by those at the entrance. The interior is entirely calcareous felspathic-rock-no sand or pebbles whatever; and perfectly dry. It has several ramifications, but all too small for a man to enter. In many places, especially near the entrance, the rock is worn smooth and even brilliantly polished, apparently by monkeys and other animals using it as a hiding-place. At 60 feet from the entrance it terminates in a pool of tepid water four feet deep, supplied by a trickling stream descending through a vertical shaft. It is evident that this drainage formerly flowed through the cave itself but has now made for itself an outlet at a lower level, and finds an exit in the spring immediately beneath the cave entrance. It is the chief source of the Kóton river, and is merely one of the capillaries in the general valley system through which the rainfall passes to join the main channels. It owes its origin to the same cause as the neighbouring valleys, and noways differs from them except in being roofed instead of open.

Such is the true description of this wonderful cave, which local tradition said was of enormous extent, and inhabited by a race of Jins. In some places the roof was so low that I was obliged to crawl like a snake, and it seemed uncertain wheither I should ever be able to crawl out again or not.

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The spring without the cave is 3 , feet 4 inches deep and beantifully clear. I found its temperature at noon to be $33^{\circ} \mathrm{C} .\left(=91^{\circ} \cdot 4^{\circ}\right.$ F. $)$, while'at the same time the temperature of the air in the shade was $23^{\circ} \mathrm{C} .\left(=73.4^{\circ} \mathrm{F}\right.$.). L am unable to account for the high temperature of the vater.

I then started on foot with a few men up one of the lower portions of the Elio ridge, by a clearly-marked path through thick jungle. This appears to be used as a short cut from the plain across the hill to the water in the Koton valley.

Travelling round the heads of two or three valleys and over rolling ground, we at last came in view of the vast expanse of alluvial plain which we had tredversed from the coast. Dnfortunately it was veiled in a thick mist. I had hoped to be able to take compass bearings to Warabili and other detached hills S.-W. of Zaila, and thus to connect Eilo with some of the points of triangulation fixed last year by the officers of Her Majesty's Surveying Ship "Myrmidon", but none of them were visible. The bearing (magnetic) of Jabal Elmas, near Bú'lhár, I found to be $112^{\circ} 30^{\prime}$. I also took barometrical observations, which are recorded in the Appendix.

About 1,000 feet higher than the hill on which we stood, and about a mile to the west, is a precipitous cliff, which forms the eastern extremity of the bigher portion of Mount Eilo.

Having collected a basket full of geological specimens, with some ferns and other plants, we returned to the camp by the same way. I found the Sudanis busy making a substantial abbatis round the camp, and piling up huge logs of wood to make fires to keep off the elephants, lions and panthers, which are said to abound here. During the night I heard one of the sentries firing at a panther which came up close to his post, at the same time saying: "Take that, you son of a dog ${ }^{\text {" }}$ ! Next morning he was much chaffed by his companions when the mark of his bullet was seen on the trunk of a tree not ten yards from where he had been standing.

At 8-50 A. K. on the 18 th February we starfed on the return journey to Zaila, but by a different route, shorter than that by which we came. I was also curious about the water-shed on the southern side of Eilo.

For the first two or three miles the road was the same as that by which we had come, then, turning up the bed of the Barrhé, we arrived at Salak at 11 s.m. Here we found some villages of the Rer Mahmúd, and halted for breakfast under the shade of some large trees. Water is obtained from a large well, shamrock-shaped in plan. The section shows a compact stratum of reddish earth mixed with sand, underlying the quartz sand of the river-bed.

The Rer Mahmúd section of the Rer Núr is divided into two familiesthé Rer Halas, the principal Akil of 'which is at present Múdi Bukúrré; and the Rer Gabal, the principal Akil of which is Núr Fáhiya.

While I was at breakfast, the village Akils enjoyed the Somali luxury of a long palaver with mine, sitting under the shade of a large tree on the river bank. Then appeared from different directions deputations from the two villages. In front of each party were about 20 men mounted on gaily-caparizoned horses, which they were soon.obliged to abandon, as, owing to the heavy nature of the sand in the river-bed and the thick scrub jungle on the banks, there was no space suited for equestrian performances. They were followed by a similar number of women and young girls, singing loudly, some bearing on their hips dels, or milk vessels, and others driving before them a few sheep as offerings. Next came some 70 or 80 spearmen from each village', singing the usual deeptoned, plaintive song which precedes a complimentary war-dance.

The dancing which took place on the left bank of the river was followed by many speeches, to which I, made suitable replies; and having accepted their offerings of sheep and milk, and given in return some thobs and tobacco to the men, and beads to the women, we started on our way up the bed of the river Salak at 3 p.m. and were preséntly joined by a small-Kafila froca the Rer Dalal and Rer Hareid (Habr Awal), bound for Zaila.

The valley between Eilo and Karamát here widens out to 5 or 6 miles: it ${ }^{1}$ is nearly level, covered with thick jungle and intersected by numerous deep water-courses, all running into the main river.

At 5 p.x. an elephant was seen leisurely crossing the river-bed ahead of us; so $I$ dismounted and began stalking him from the opposite bank. When within 200 yards I fired with a 12 bore rifle and hit him in the head: the Sudanis followed up my shot by a volley from their Remingtons; but their little bullets affected the elephant no more than the bites of so many flies. He ran off towards the Eilo range, and several of us started in pursuit on foot over rocky ground with thick, thorny jungle at intervals, firing at him whenever we got an opportunity ; but I never managed to get nearer than about 200 yards. Eventually he re-crossed the river-bed, and we lost him in the thick jungle. I have since heard that some Gadaburrsi professionar elephant hunters who were with us at the time, armed with bows and poisoned arrows, found him dead nest worning.

On returning to the place where we had left our animals, we found that the courageous Akils, Girrhe Egal, Wil Ahmed and Warfa had mounted our ponies and mules and taken to flight when the first shot was fired.

When riding fast to overtake them I happened to notice on the right bank of the river a gigantic sandstone boulder which appeared to have inscriptions cut on it. Dismounting from my camel I examined it closely, and found it to be about 20 feet long, 6 feet bigh, and completely covered with ancient inscriptions, which turned out to be the marks used from time immemorial to distinguish the cattle of the various sub-tribes of the Gadabúrsi and Habr Awal. I am told that a similar stone exists somewhere in the Eesa country. As it was getting late, I could not spare time to copy more than three or four of the marks. They bear a considerable resemblance to the ancient Moabite, Phonician and Archaio Greek characters ; and are probably the embryo of an alphabet, which the Somal, owing to deficient constructiveness, have never invented. The subject is worthy of investigation.

At sunset we encamped for the night in the river-bed, and proceeded onward at 7 L.M. next day. This neighbourhood is celebrated as that from which the best quality of spear-shafts are procured. They are made from the young shoots growing at right-angles to the main branches of the debbe tree. The wood is very hard, close-grained and somewhat flexible; they would make excellent handles for carriage whips. They are straightened by heating the crooked portions over the embers of a fire, and bending in an upright piece of wood with a hole in it. The underground roots of the galól tree are sometimes used as spear-shafts. This wood, of a fibrous texture, is much lighter and more flexible than the debbé. The bark of the galol tree is used for tanning the inside of girbas (water-skins), and for some days after they are first used the water in them has a deep reddish tinge, and becomes "hard." Another useful tree which grows plentifully here is the gup (Arabic dom): its long, thin branches bent to the required curve, and kept so by having heavy stones placed. on them for some days, form the ordinary frame-work of the girgi, which is invariably the dwelling of the nomadic Beduins. Growing to the height of 60 or 70 feet, the gúp is the largest tree which I have yet seen in this country. On the river banks here I also noticed quantities of the wild henna, and the castor-oil plant.

At 9-45 a.m. we entered the Garásalé valley, which lies between the western extremity of the Eilo range and a hill about 1,000 feet high named Aㄱi Oyd (weeping Ali); so called owing to the heavy rainfall in its neighbourhood. The valley is about a mile wide, and the river-bed about 200 yards: the latter is so level and so uniform in appearance that I found it impossible (without levelling instruments) to decide on the position of the water-shed; yet it is certain that the one river here flows in two directions, viz., N.-E. and S.-E. or East.

We halted in the valley for about three hours; and while my breakfast was being cooked I scrambled up a rocky spur of Ali Oye, which commanded a view of the alluvial plain to the north and the hilly Gadabursi country to the south.

Though the horzion was very misty in both directions, I was enabled to take some observations which have been of great use to me in preparing a map of the country through which $I$ travelled. The river-bed, which is here about 200 yards broad, is called Dihan A'da.

At 1 p.m. we started in a north-westerly direction over broken gropnd and through thick jungle. Numerous flocks of sheep and goats belonging to the Rer Muhamnad $A^{\prime}$ sa, sub-tribe of the Gadabúrsi, were seen grazing on the northern slope of Ali Oyé.

At-4-20 p.M. we reached Gárisa, marked by a small hill on the right bank of a fiver-bed 180 yards wide. Here we found a village of the Rer Abdalla Muhammad family of the Rer Muhammad $\mathrm{A}^{\prime}$ sa sub-tribe of the Gadabúrsi, the chief Akil of whom is, at present, Ali Girché. This is the home of the hostages whom I had imprisoned before leaving Zaila. In close proximity to it was another village, belonging to the Rer Ali A'da family of the Mamasan sub-tribe of the Eesa, the chief Akil of which is Wil Ahmed (one of my companions).

We encamped in the bed of the river Gárisa, which is here 180 yards wide. Therwater-supply is derived from a large well about 25 feet deep, and the mode of drawing it is peculiar. One man stands in the water at the bottom, and filling a guruf, a vessel made of fibre and shaped like an inverted cone containing $1 \frac{1}{2}$ or 2 gallons, dexterously throws it to a second man standing on a ledge in the side of the well, who at the same time throws down an expty vessel : he throws it to a third, higher up, who passes it up to a fourth at the prink, and the latter pours the contents into the cattle-trough, which consists of a framework of four upright sticks connected by horizontal ones frem which is suspended a moveable skin. Each man throws down to the next lower an empty vessel at the same time that he prepares to catch the full one, so the empty and full vessels always pass one another in the air. Considering the number of hands through which it passes, wonderfully little water is wasted. A pir-headed adherence to ancient custom, I suppose, prevents the people from adopting some more civilized method of drawing water.

Next morning (20th February) I ascended a rocky knoll on the right bank of the river, about 300 jards south of the well, and took compass observations. This neighbourhood abounds in ancient graves and mosques, marked by lines of large loose stones on the surface of the ground. I also saw many old tracks of elephants here. On' the way back to camp I shot a pretty little sagáro, or sand-antelope.

The inhabitants of both villages presented me with some sheep and quantities of milk; after which I was asked to go to a place near the left bank of the river, where there was ground suitable for equestrian games. There I found about 20 Gadabúrsi warriprs mounted on ponies, the saddlery gaudily decorated with coloured cloth. Each man was armed with two light spears for throwing a bilâwa, or long, straight dagger and a circular leather shield. There were also 30 or 40 dismounted Gadabdrsi men and a similar number of the Eesa. The proceedings began by the chief of the mounted men advancing in front of his troop and chanting at the top of his voice a flattering song of.welcome. He alluded to the absence of their head men whom I had left in prison at Zaila and apologized for the scanty hospitality which they could afford in consequence. He said that his tribe were full of loyalty towards the British Government, and were delighted to welcome its representative, the first European who had honored them with a visit. Having finished his speech he raised his spears in salutation, and called out : Mbd 1 Mod !-" Honour to thee", to which I gave the usual reply: Kulibán-" May Heaveñ aid ye!" Then turning his horse round he shouted: Wa riyadai! Wa riyadai! as a signal for the equestrian games to commence.

Upon this they all wheeled round, and flogging their horses with leatherthonged whips gallopedinto the jungle at a furious pace, flourishing their spears, their flowing thobs inflated by the wind. Numerous female spectators standing on one side loudly applauded in the usual way by an inimitable shrill, quavering sound made from the back of the throat. It was a wild, picturesque scene, which I much regretted being unable to sketch.

Soon the performers returned at the same reckless pace, reining up their horses with a sudden jerk within two or three yards of where I sat. Another orator then came forward and made a speech differing but slightly from the previous one; and the same performance was repeated three or four times. In one of the charges, a man in avoiding a tree, came into violent collision with one of his companions, and both horse and rider fell heavily together. The man lay insensible for about five minutes, and was then carried home.

After this the dismounted men went through the usual dance, which $I$ have described elsewhere. This was followed by a dance of the village maidens; and the proceedings concluded by my distributing presents of thobs, tobacco and beads.

It being too late to march any distance that day, I made up my mind to remain another night.

Next morning (21st February) we started at 6 o'clock, passing close to the Eesa village in which were great numbers of cattle, sheep, goats and camels, and 25 or 30 huts.

The rest of the journey was monotonous in the extreme: a grassy plain intersected at pretty regular distances by dry, sandy river-beds, all tending northeast. At 11 o'clock we halted for breakfast ; and starting again at 1-30, marched till 5 P.M. when we encamped for the night.

Next morning (22nd February) we marched at 3-30 a.m. by moonlight. At day-break I shot a very fine antelope with a Snider rifle at 300 yards. Many large herds were visible at long distances, but I could not spare time to stalk them.

At 10 A.m. we reached our old camping ground at Udawadirí; and at 2 p.m. taking a small escort with me, I set out for Zaila, leaving the kafila to follow more leisurely.

For a great part of the way our progress was somewhat slow, as recent rain had made the ground very slippery and difficult for my camel. At 8 p.u. we reached Zaila; and late though the hour was, a number of the townspeople insisted upon coming to congratulate me on my safe return.

Next morning I had a long talk with the hostages; and giving each a thob, and a few rupees to purchase food for the road, sent them away perfectly happy, and swearing an eternal friendship.

Before concluding this narrative it may be well to add a few rude notes on the geology of the country through which I passed. Travelling as rapidly as I did, it will readily be understood that my observations were necessarily of a very cursory nature. Still, thinking that they may possibly be of some use to future explorers in this country, I give them for what they are worth.

All the hills which 1 passed appeared to be purely metamorphic; generally consisting of limestones, crystalline and uncrystalline : usually the former; and of schistose structure. Amongst these is to be found beautiful lithographic stone, five-grained and hard; colour grey, yellowish-grey, and reddish-brown with a conchoidal fracture. All the river-beds abound with specimens of it in the form of boulders; and in some places I saw slabs of it which almost appeared as if they had been artificially quarried for lithographic purposes.

The stratification of the hills is, very clearly marked, and the usual dip is from $20^{\circ}$ to $25^{\circ}$.

In conjunction with the limestones is a hard, fine-grained and massive sandstone, generally of a reddish-yellow colour, and. well adapted for grindstones.

Amorphous serpentiniferous potashfeldspar, with hornblende and dioryte occur near the foot of the hills; and in the valleys outcrops of mica-schist associated with gneiss and quantities of fragments of quartz.

The main valleys, being very long, have naturally, a very gentle longitudinal slope; and large boulders are of rare occurrence except in the short and steep ramifications.

Sheltered valleys, such as the Kóton, hold abundance of rich soil, but the exposed slopes of the hills show signs of very extensive denudation. The detritus thus derived has gone to form the immense alluvial plain, formerly a sea-bed;
but, being checked in its progress by the sea itself and its fringe of coral reefs, it has accumulated backwards, and thus formed a long; narrow and scarcely perceptible basin parallel to the coast line.

The light argillaceous portion of the detritus reached the coast line first; and being there rapidly deposited, partly by the absorption, and partly by the evaporation of the rain-water, has formed itself into an impermeable stratum, which retains both the local rain-water and that which is absorbed further inland by the sand in the river-beds.

Another circumstance whinh tends to maintain the water-supply in the coast basid is, that the rainy season above the line of Ghats is not coincident with that below them.

Since my return from this expedition I have seen the Takústa river in a state of flood and discoloring the sea to a distance of more than a mile, although no rain has fallen near the coast for some months.

The theories above stated, in my opinion, sufficiently explain why it is that *while abundance of water is obtainable all along the coast from the Gulf of Tajora to Bulhar within three or four feet of the surface, it is only to be obtained on the alluvial plain further inland by digging to a considerable depth in the river-beds. But the apathetio Somalis never dream of such an operation as experimental well-sinking, consequently, no water is to be found on the plain except in a very few places where wells have existed from time immemorial;
J. S, KING, Captain, Assistant Political Resident and Vicé-Consul, Zaila.

Route from Zaila to Mount Eilo, viâ Khor Kulangárit.


| - From | To | Distancs. |  | Water-supply. | General Remarky on the Road. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Miles, | \|'goura. |  |  |
|  |  |  | 7 |  | Gashan- $\AA$ da. Thin jungle and grass. Al 12 miles crosses the river Karúrhé, 25 S , yards wide, banks 6 to 7 feet high drection $=65^{\circ}$, bed loose white sand with scattored boulders. crosses the river Súradlaj, 100 yards broad, very shallow, direction $60^{\circ}$. Coarse grass and trees in the bed. Lid miles crosses the river Bonka, run- ning N.-E. At 20 miles crow, river-bed for 2 miles, and then again due soath Jungle getting gradually the bed of the river Adad; 20 sards broad, direction $50^{\circ}$. Large trees with thick under-growth on both shles. 28 miles Idris (the name of a district) on the River Adád, which is hare very broad, banks 10 to 20 feet bigh. At this point bearing of eastern extremity on Mount Eilo $=173^{\circ} 30^{\prime}$ and western extremity |
| Idris | Bárrahé Valley. | 12 | $5 \frac{1}{8}$ | On the roate-none. A small perennial stream runs down the right side of the Barrahe river and good water is found within 1 or 2 feet of the surface by scraping holes in the sand. | Direction due E. through thick jungle, winding path. At 1 mile goes down the bed of the River Shimbaru for about half a mile. At 21 miles across a deepravine with stony bottom, running eastwarda portion of the Shimbaru. At $4 \frac{1}{2}$ miles crosses the stony bed of the River Kalanli, 20 yards broad, banks 10 feet high, direction $200^{\circ}$. At 5 milesacross the sandy bed of the River Malpassa, 25 yards wide, direction N., very thick, thorny jungla of babbul trees. At $7 \frac{1}{2}$ miles pass close under the side of a solitary hill called Kúhi, nbout 300 feet high. At 11 miles goes S. up the bed of the River Bdrrahé, about 400 yards wide, running N. At 12 miles the River Kutun (which has its source in the Eilocave) Joins the Bárrahé. Lofty, monntains on all sidex. |
| Bárrahé | Eilo Cave ... | 5 | 21 | Pools atointervals in the bed of the Koton. | General direction N..W. up the Koton valley. Thick, thorny jangle; otherwise the road is good for the first 4 miles, when it runs up the bed of the river Koton, which is all rocks and smooth boulders. Excessively that, thorny jungle on both banks. |

[^0]March 1886.

Route from Mount Eilo to Zaila, vid Gärásalé Pass.
L.
J. S. KING.

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48: 683 \mathrm{ME}
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[^0]:    J. S. KING Captain,

    Assistant Resident and Vice-Consul, Zaila.

