

CAPTAIN J. H. SPEKE'S DISCOVERY OF THE VICTORIA NYANZA LAKE,
THE SUPPOSED SOURCE OF THE NILE. FROM HIS JOURNAL.

PART III.

RETURN FROM THE NYANZA.

6th August 1858.—As no further information about the lake could be gained, I bade Mahaya and the Shaykh adieu, leaving as a token of recollection one shukka Amerikan for the former, one dhoti kiniki for his wife, and a fundo of beads for the poor Arab, and retraced my steps by a double march back to Ukumbi. Whilst passing alongside the archipelago, I shot two geese and a crested crane. What a pity it seemed I could not pluck the fruit almost within my grasp! Had I had but a little more time, and a few loads of beads, I could with ease have crossed the Line, and settled every question which we had come all this distance to ascertain. Indeed, to perform that work, nobody could have started under more advantageous circumstances than were then within my power, all hands being in first-rate condition and health, and all in the right temper for it. But now a new and expensive expedition must be formed, for the capabilities of the country on the eastern flank of the Mountains of the Moon, and along the western shores of the Nyanza, are so notoriously great that it is worthy of serious attention. My reluctance to return may be easier imagined than described. I felt as much tantalised as the unhappy Tantalus must have been when unsuccessful in his bobbings for cherries in the cherry-orchard, and as much grieved as any mother would be at losing her first-born, and resolved and planned forthwith to do everything that lay in my power to visit the lake again.

7th.—We made a march of fourteen miles, passing our second station in Urima by two miles, partly to avoid the chief of that village, a testy, rude, and disagreeable man, who, on the last occasion, inhospitably tried to turn us out of a hut in his village, because we would not submit

to his impudent demand of a cloth for the accommodation—a proceeding quite at variance with anything we had met in our former receptions, and we resisted the imposition with pertinacity equal to his own. Besides this, by coming on the little extra distance, we arrived at the best and cheapest place for purchasing cows and jembies.

8th.—Halt. I purchased two jembies for one shukka Amerikan, but could not come to any terms with these grasping savages about their cows, although their country teems with them, and they are sold at wonderfully cheap prices to ordinary traders. They would not sell to me unless I gave double value for them. The Fauna of this country is most disappointing. Nearly all the animals that exist here are also to be found in the south of Africa, where they range in far greater numbers. But then we must remember that a caravan route usually takes the more fertile and populous tracks, and that many animals might be found in the recesses of the forests not far off, although there are so few on the line. The elephants are finer here than in any part of the world, and have been known, I hear, to carry tusks exceeding 500 lb. the pair in weight. The principal wild animals besides these are the lion, leopard, hyæna, fox, pig, Cape buffalo, gnu, kudu, hartebeest, pallah, steinboc, and the little mado-ka, or Sultana gazella. The giraffe, zebra, quagga, rhinoceros, and hippopotamus are all common. The game-birds are the bustard, florikan, Guinea-fowl, partridge, quail, snipe, various geese and ducks, and a very dark-coloured rock-pigeon or sand-grouse. The birds in general have very tame plumage, and are much more scarce, generally speaking, than one finds in most other countries.

The traveller on entering these

agricultural districts meets with a treatment quite opposite to what he does from the pastoral tribes, such, for instance, as the Somal, Gallas, Masai, &c. &c. Here they at once hail his advent as a matter of good omen, or the precursor of good fortune, and allow him to do and see whatever he likes. They desire his settling amongst them, appreciate the benefits of commerce and civilisation, and are not suspicious, like the plundering pastorals, of every one coming with evil intentions towards them. The Somal, about as bad a lot as any amongst the rovers, will not admit a stranger into their country, unless accompanied by one of their tribe, who becomes answerable for the traveller's actions, and even with this passport he is watched with the eyes of Argus. Every strange act committed by him, no matter how simple, absurd, or trifling, is at once debated about in council, and always ends to Viator's disadvantage. They add to everything they see or hear, by conjuring up the most ridiculous phantoms; and the more ridiculous they are, the more firmly do they at last believe in them themselves. The worse their grounds are, the more jealously do they guard against anybody's seeing them; and woe betide any one who should frequent any particular spot too often: he is at once set down as designing a plot against it, to fortify the place and take it from them; this idea is their greatest bugbear. Among that tribe blood shed by any means—by the stealthy knife or in fair fight—is deemed meritorious and an act of heroism. No one is ever sure of his life unless he has force to carry him through, or can rely on the chief of the clan as his pillar of safety. This latter plan is probably the safer one, for, as the old adage goes, "there is honesty amongst thieves;" so with these savages it is a matter of importance to their honour and dignity, according to their quaint notions of rectitude, to protect their trust to their utmost; whereas, on the contrary, were that trust not reposed in them, they would feel justified in taking any liberties, or act in opposition to any of those general laws which guide the conduct of civilised men.

I would not, however, desire the African agricultural people to be considered models of perfection. Individually, or in small bodies, the mass of them are very far from being so, for they would commit any excesses without the slightest feelings of compunction. The fear of retribution alone keeps their hands from blood and plunder. The chiefs and principal men, if they have no higher motives, keep their different tribes in order, and do not molest travellers without good cause, or from provocation, as they know that protecting the traveller is the only way in which they can keep up that connection with the commerce of the coast which they all so much covet. It may be worthy of remark that I have always found the lighter-coloured savages more boisterous and warlike than those of a dingier hue. The ruddy black, fleshy-looking Wazaramos and Wagogos are much lighter in colour than any of the other tribes, and certainly have a far superior, more manly and warlike independent spirit and bearing than any of the others.

9th. — We started early, and crossed the Jordans by a ferry at a place lower down than on the first occasion. After leaving the low land, we rose up to the higher ground where we had first gained a sight of the Nyanza's waters, and now took our final view. To myself the parting with it was a matter of great regret, but I believe I was the sole sufferer from disappointment in being obliged to go south, when all my thoughts or cares were in the north. But this feeling was much alleviated by seeing the happy, contented, family state to which the whole caravan had at length arrived. Going home has the same attraction with these black people that it has with schoolboys. The Belooches have long since behaved to admiration, and now even the lazy Pagazis, since completing their traffic, have lighter hearts, and begin to feel a freshness dawn upon them. We soon entered our old village in Nera, having completed fourteen miles. Here the chief, who had travelled up the western shore of the Nyanza, assured me that canoes like

the Tanganyika ones were used by the natives, and were made from large trees which grew on the mountain-slopes overlooking the lake. The disagreeable-mannered Wasukumas (or north men) are now left behind; their mode of articulation is most painful to the civilised ear. Each word uttered seems to begin with a T'hu or T'ha, producing a sound like that of spitting sharply at an offensive object. Any stranger with his back turned would fancy himself insulted by the speaker. The country throughout is well stocked with cattle, and bullocks are cheap, two dhotis, equal to four dollars, being the price of a moderate-sized animal; but milch cows are dear in consequence of the great demand for sour curd. Sheep and goats sell according to their skins: a large one is preferred to a shukka, equal to one dollar; but a dhoti, the proper price of three small goats, is scarcely the value of the largest. The bane of this people is their covetousness. They do not object to sell cheaply to a poor man, yet they hang back at the sight of much cloth, and price their stock, not at its value, but at what they want, or think they may get, obstinately abiding by their decision to the last. Cattle are driven from this to Unyanyembé, and consequently must be cheaper here than in those more southern parts, still I could not purchase them so well: indeed, a traveller can never expect to buy at a reasonable rate in a land where every man is a sultan, and his hut a castle; where no laws regulate the market, and every proprietor is grasping. Bombay suggests that to buy cattle cheap from the Washenzi (savages), you should give them plenty of time to consider the advantages and disadvantages of the transaction, for their minds are not capable of arriving at a rapid conclusion; but friend Bombay forgets that, whilst waiting to beat them down a cloth or two, four or five are consumed by the caravan in that waiting. The women, especially the younger ones, are miserably clad here: a fringe, like the thong kilt of the Nubian maidens, made of aloe fibres, with a single white bead at the end of each

string, is the general wear: it is suspended by a strap tied round the waist. Hanging over the belly, it covers about a foot of *ground* in breadth, but not more than seven or eight inches in depth. The fibrous strings, white by nature, soon turn black, and look like India-rubber, the effect of butter first rubbed in, and then constant friction on the grimy person. The dangling, waving motion of this strange appendage, as the wearer moves along, reminded me of the common fly-puzler sometimes attached to horses' head-stalls. Amongst a crowd of fifty or sixty people, not more than two or three have a cloth of native make, and rarely one of foreign manufacture is to be seen. Some women have stood before me in the very primitive costume of a bunch of leafy twigs.

But far worse clad than these are the Wataturu, a tribe living to the eastward, and the Watuta, living to the westward of this place, to whose absolute nakedness I will draw your attention, because a ridiculous opinion prevails that man, by natural impulse, as was the case with our original progenitors Adam and Eve, entertains an innate sense of shame from the exposure of his person.

Of the first mentioned, the Wataturu, a people living a little to the northward of Turu (see map), I have only seen a few males, and they were stark naked, and adhered to the ancient Jewish rite, which is the more remarkable, as they are the only natives that I am aware of who indulge in this practice, and none are Mussulmans. The Wataturus despise any one who is weak enough to cover his person, considering that he does so only to conceal his natural imperfections. Their women are currently reported to be as naked as the men, but I did not see any of them, and cannot vouch for it.

Of the Watuta tribe, the second mentioned, who live a little to the westward of Msené (see map), these savages are said to be all but naked also, only wearing a cylinder, or a piece of hollow bamboo. This is a second living example, though I have no doubt there are many more in Africa, antagonistic to the received

opinion, which holds that man is possessed of an inherent sense of modesty, and that, from some normal, yet incomprehensible, action on his mind, he is induced to cover up certain portions of his body.

Until India, or rather Bombay, exports cheap and strong cloths for the Zanzibar market, and outbids the American sheeting now in common use throughout the most of the interior, this will be the national costume. It is to be hoped that India, when once aroused to the advantages of dealing more extensively with this country, will never lose sight of the fact that the negro as well as more enlightened man can detect the difference between good and poor stuffs; that the nation which makes the strongest stuffs will be considered to be the honestest, and the more lasting the material, the more readily it will be taken. In sending cloths great care should be taken that every piece be of the same length, and always evenly divisible by cubits, or eighteen-inch measure. If the Lion and the Unicorn, figuring on the outside of each piece—*Thān* or *Gora*, as it is called respectively in India and Africa—were security of its being English manufacture, and, by being so, sure to be of uniform quality and size, much respect would be given to it; and "*Shukka Anglési*" (English *shukka*) would soon take the place of "*Amerikan*," which are by different mills, and are different lengths and qualities. The only reason for the negro taking a large goat-skin in preference to a *shukka*, is because it is stronger.

On coming here I had the misfortune to make my donkey over to Bombay, to save his foot, which had been galled by too constant walking; for though unable to ride, he was too proud to say nay, and was therefore placed upon it, whilst carrying the gun devoted to his charge, Captain Burton's smooth elephant. Now Bombay rode much after the fashion of a sailor, trusting more to balance and good-luck than skill in sticking on; and the consequence was, that with the first side-step the donkey made he came to the ground an awkward cropper, falling heavily on the

small of the stock of the gun, which snapped short off, and was irredeemably damaged. At first I rated him heartily, for this was the second of Captain Burton's guns which had been damaged in my hands. I then told Bombay of the circumstances which led to the accident to the first gun. It was done whilst hippopotamus-shooting on the coast rivers opposite to Zanzibar; and as Bombay had a little experience in that way to relate, we had long yarns about such sport, which served to improve our Hindostani (the language I always conversed with him in), as well as to divert our useless yet unavoidable feelings of regret at the accident, and also killed time.

One day, when on the Tanga river, near its mouth, I was busily engaged teasing hippopotami, with one man, a polesman, in a very small canoe, just capable of carrying what it had on board, myself in the bows, with my 4-bore Blissett in hand, while Captain Burton's monster elephant-gun, a double-barrelled 6-bore, weighing, I believe, 20 lb., was lying at the stern in the poler's charge.

The river was a tidal one, of no great breadth, and the margin was covered by a thick growth of the mangrove shrub, on the boughs of which the sharp-edged shells of the tree-oyster stuck in strings and clusters in great numbers. The best time to catch the hippopotamus is when the tide is out and the banks are bared, for then you find him wallowing in the mud or basking on the sand (when there is any), like jungle hog, and with a well-directed shot on the ear, or anywhere about the brain-pan, you have a good chance of securing him. I especially mention this, as it is quite labour in vain, in places where the water is deep, to fire at these animals, unless you can kill them outright, as they dive under like a water-rat, and are never seen more if they are only wounded. I, like most raw hands at this particular kind of sport, began in a very different way from what, I think, a more experienced hunter would have done, by chasing them in the water, and firing at their heads whenever they appeared above it; and even fired slugs about their eyes

and ears, in hopes that I might irritate them sufficiently to make them charge the canoe. This teasing dodge proved pretty successful, for when the tide had run clean out, only pools and reaches, connecting by shallow runnels the volume of the natural stream, remained for the hippopotami to sport about in; and my manœuvring in these confined places became so irritating, that a large female came rapidly under water to the stern of the canoe, and gave it such a sudden and violent cant with her head or withers, that that end of the vessel shot up in the air, and sent me sprawling on my back, with my legs forced up by the seat—a bar of wood—at right angles to my body; whilst the peler and the big double gun were driven like a pair of shuttlecocks, flying right and left of the canoe high up into the air. The gun on one side fell plump into the middle of the stream, and the man on the other dropped, *post* first, on to the hippopotamus's back, but rapidly scrambled back into the canoe. The hippopotamus then, as is these animals' wont, renewed the attack, but I was ready to receive her, and as she came rolling porpoise-fashion close by the side of the canoe, I fired a quarter of a pound of lead, backed by four drams of powder, into the middle of her back, the muzzle of the rifle almost touching it. She then sank, and I never saw her more; but the gun (after lying on the sandy bottom the whole of that night), I managed, by the aid of several divers, to find on the following day.

Bombay says that on one occasion, when coming down the Pangani river in a canoe with several other men, an irritated hippopotamus charged and upset it, upon which he and all his friends dived under water and then swam to the shore, leaving the hippopotamus to vent his rage on the shell of the canoe, which he most spitefully stuck to. This, he assures me, is the proper way to dodge a hippopotamus, and escape the danger of a bite from him. On another occasion, when I was hippopotamus-hunting in one of the boats belonging to a large frigate, the property of Sultan Majid of Zanzibar, in an inlet of the sea close to

Kaolé, I chased a herd of hippopotami in deep water, till one of the lot, coming as usual from below, drove a tusk clean through the boat with such force that he partially hoisted her out of the water; but the brute did no further damage, for I kept him off by making the men splash their oars rapidly whilst making for the shore, where we just arrived in time to save ourselves from sinking.

The day previous to this adventure, I bagged a fine young male hippopotamus close to this spot, by hitting him on the ear when standing in shallow water. The ivory of these animals is more prized than that of the elephant, and, in consequence of the superior hardness of its enamel, it is in great requisition with the dentist.

Hippopotami are found all down this coast in very great numbers, but especially in the deltas of the rivers, or up the streams themselves, and afford an easy, remunerative, and pleasant sport to any man who is not addicted to much hard exercise. The Panjani, Kingani, and Lufiji rivers are full of them, as well as all the other minor feeders to the sea along that coast. If these animals happen to be killed in places so far distant from the sea that the tidal waters have not power to draw them out to the ocean depths, their bodies will be found, when inflated with gas, after decomposition, floating on the surface of the water a day or two afterwards, and can easily be secured by the sportsman, if he be vigilant enough to take them before the hungry watchful savages come and secure them, to damp their rapacious appetites. Mussulmans will even eat these amphibious creatures without cutting their throats, looking on them as cold-blooded animals, created in the same manner as fish.

The following day, 10th August, we made a halt to try our fortune again in purchasing cows, but failed as usual; so the following morning we decamped at dawn, and marched thirteen miles to our original station in southern Nera. Here I purchased four goats for one dhoti Amerikan, the best bargain I ever made. Thunder had rumbled, and clouds overcast

the skies for two days ; and this day a delicious cooling shower fell. The people said it was the little rains—*chota barsāt*, as we call it in India—expected yearly at this time, as the precursor of the later great falls. As Seedi Bombay was very inquisitive to-day about the origin of Seedis, his caste, and as he wished to know by what law of nature I accounted for their cruel destiny in being the slaves of all men, I related the history of Noah, and the disposition of his sons on the face of the globe ; and showed him that he was of the black or Hametic stock, and by the common order of nature, they, being the weakest, had to succumb to their superiors, the Japhetic and Semitic branches of the family ; and, moreover, they were likely to remain so subject until such time as the state of man, soaring far above the beast, would be imbued by a better sense of sympathy and good feeling, and would then leave all such ungenerous appliances of superior force to the brute alone. Bombay, on being created a Mussulman by his Arab master, had been taught a very different way of accounting for the degradation of his race, and narrated his story as follows : “The Arabs say that Mahomet, whilst on the road from Medina to Mecca, one day happened to see a widow woman sitting before her house, and asked her how she and her three sons were ; upon which the troubled woman (for she had concealed one of her sons on seeing Mahomet's approach, lest he, as is customary when there are three males of a family present, should seize one and make him do portage) said, ‘Very well ; but I've only two sons’ Mahomet, hearing this, said to the woman reprovingly : ‘Woman, thou liest ; thou hast three sons, and for trying to conceal this matter from me, henceforth remember that this is my decree—that the two boys which thou hast not concealed shall multiply and prosper, have fair faces, become wealthy, and reign lords over all the earth ; but the progeny of your third son shall, in consequence of your having concealed him, produce Seedis as black as darkness, who will be sold in the market like cattle

and remain in perpetual servitude to the descendants of the other two.”

12th.—We returned to our former quarters, the village of Salawé ; but I did not enjoy such repose as on the former visit, for the people were in their cups, and, *nolens volens*, persisted in entering my hut. Sometimes I rose and drove them out, at other times I turned round and feigned to sleep ; but these manœuvres were of no avail ; still they poured in, and one old man, more impudent than the rest, understanding the trick, seized my pillow by the end, and, tugging at it as a dog pulls at a quarter of horse, roused me with loud impatient “Whu-hu” and “Hi, Hi's,” until at last, out of patience, I sent my boots whirling at his head. This cleared the room, but only for a moment : the boisterous, impudent crowd, true to savage nature, enjoying the annoyance they had occasioned, returned exultingly, with shouts and grins, in double numbers. The Belooches then interfered, and, in their zeal to keep order, irritated some drunkards, who at once became pugnacious. On seeing the excited state of these drunkards, bawling and stepping about in long, sudden, and rapid strides, with brandished spears and agitated bows, endeavouring to exasperate the rest of the mob against us, I rose, and going out before them, said that I came forth for their satisfaction, and that they might now stand and gaze as long as they liked ; but I hoped as soon as their legs and arms were tired that they would depart in peace. The words acted with magical effect upon them ; they urgently requested me to retire again, but finding that I did not, they took themselves homewards. The sultan arrived late in the evening, he said from a long distance, on purpose to see me, and was very importunate in his desire for my halting a day. As I had paid all the other sultans the compliment of a visit, he should consider it a slight if I did not stay a little while with him. On the occasion of my passing northwards he had been absent, and could not entertain me ; so I must now accept a bullock, which he would send for on the morrow. A long debate ensued, which

ended by my giving him one shukka Amerikan, and one dhoti kiniki.

13th.—Travelling through the Nindo Wilderness to-day, the Belooches were very much excited at the quantity of game they saw; but though they tried their best, they did not succeed in killing any. Troops of zebras, the quagga and giraffe, some varieties of antelopes roaming about in large herds, a buffalo and one ostrich, were the chief visible tenants of this wild. We saw the fresh prints of a very large elephant; and I have no doubt that by any sportsman, if he had but leisure to learn their haunts and watering-places, a good account might be made of them—but one and all are wild in the extreme. Ostrich feathers bedeck the frizzly polls of many men and women, but no one has ever heard of any having been killed or snared by huntsmen. These ornaments, as well as the many skulls and skins seen in every house, are said to be found lying about in places where the animals have died a natural death.

14th.—We left, as we did yesterday, an hour before dawn, and crossed the second broad wilderness to Kahana. At 9 A.M. I called the usual halt to eat my rural breakfast of cold fowl, sour curd, cakes, and eggs, in a village on the south border of the desert. As the houses were devoid of all household commodities, I asked the people stopping there to tend the fields to explain the reason, and learnt that their fear of the plundering Wamandas was such that they only came there during the day to look after their crops, and at night they retired to some distant place of safe retreat in the jungles, where they stored all their goods and chattels. These people, in time of war, thus putting everything useful out of the way of the forager's prying eyes, it is very seldom that blood is spilt. This country being full of sweet springs, accounts for the denseness of the population and numberless herds of cattle. To look upon its resources, one is struck with amazement at the waste of the world: if instead of this district being in the hands of its present owners, it were ruled by a few scores of

Europeans, what an entire revolution a few years would bring forth! An extensive market would be opened to the world, the present nakedness of the land would have a covering, and industry and commerce would clear the way for civilisation and enlightenment. At present the natural inert laziness and ignorance of the people is their own and their country's bane. They are all totally unaware of the treasures at their feet. This dreadful sloth is in part engendered by the excessive bounty of the land in its natural state; by the little want of clothes or other luxuries, in consequence of the congenial temperature; and from the people having no higher object in view than the first-coming meal, and no other stimulus to exertion by example or anything else. Thus they are, both morally and physically, little better than brutes, and as yet there is no better prospect in store for them. The climate is a paradox quite beyond my solving, unless the numerous and severe maladies that we all suffered from, during the first eight months of our explorations, may be attributed to too much exposure; and even that does not solve the problem. To all appearance, the whole of the country to the westward of the east-coast range is high, dry, and healthy. No unpleasant exhalations pollute the atmosphere; there are no extremes of temperature; the air is neither too hot nor too cold; and a little care in hutting, dressing, and diet should obviate any evil effects of exposure. Springs of good water, and wholesome food, are everywhere obtainable. Flies and musquitos, the great Indian pests, are scarcely known, and the tsetse of the south nowhere exists. During the journey northwards, I always littered down in a hut at night; but the ticks bit me so hard, and the anxiety to catch stars between the constantly-fleeting clouds, to take their altitudes, perhaps preying on my mind, kept me many whole nights consecutively without obtaining even as much as one wink of sleep, a state of things I had once before suffered from. But there really was no assignable cause for this, unless

weakness or feverishness could create wakefulness, and then it would seem surprising that even during the day, or after much fatigue, I rarely felt the slightest inclination to close my eyes. Now, on returning, without anything to excite the mind, and having always pitched the tent at night, I enjoyed cooler nights and perfect rest. Of diseases, the more common are remittent and intermittent fevers, and these are the most important ones to avoid, since they bring so many bad effects after them. In the first place, they attack the brain, and often deprive one of one's senses. Then there is no rallying from the weakness they produce. A little attack, which one would only laugh at in India, prostrates you for a week or more, and this weakness brings on other disorders: cramp, for instance, of the most painful kind, very often follows. When lying in bed, my toes have sometimes curled round and looked me in the face; at other times, when I have put my hand behind my back, it has stuck there until, with the other hand, I have seized the contracted muscles, and warmed the part affected with the natural heat, till, relaxation taking place, I was able to get it back. Another nasty thing is the blindness which I have already described, and which attacked another of our party in a manner exactly similar to my complaint. He, like myself, left Africa with a misty veil floating before his eyes.

There are other disorders, but so foreign to my experience that I dare not venture to describe them. For as doctors disagree about the probable causes of their appearance, I most likely would only mislead if I tried to account for them. However, I think I may safely say they emanate from general debility, produced by the much-to-be-dreaded fevers.

15th.—The caravan broke ground at 4 P.M., and, completing the principal zigzag made to avoid wars, arrived at Senagongo. Kanoni, followed by a host of men, women, and children, advanced to meet the caravan, all roaringly intoxicated with joy, and lavishing greetings of welcome, with showers of "Yambo,

Yambo Sanas" ("How are you?" and, "Very well, I hope?") which we as warmly returned: the shakings of hands were past number, and the Belooches and Bombay could scarcely be seen moving under the hot embraces and sharp kisses of admiring damsels. When recovered from the shock of this great outburst of feelings, Kanoni begged me to fire a few shots, to apprise his enemies, and especially his big brother, of the honours paid him. No time was lost: I no sooner gave the order than bang, bang went every one of the escort's guns, and the excited crowd, immediately seeing a supposed antagonist in the foreground, rushed madly after him. Then spears were flourished, thrust, stabbed, and withdrawn; arrows were pointed, huge shields protected black bodies, sticks and stones flew like hail; then there was a slight retreat, then another advance—dancing to one side, then to the other—jumping and prancing on the same ground, with bodies swaying here and bodies swaying there, until at length the whole foreground was a mass of moving objects, all springs and hops, like an army of frogs, after the first burst of rain, advancing to a pond: then again the guns went off, giving a fresh impulse to the exciting exercise. Their great principle in warfare appears to be, that no one should be still. At each report of the guns, fresh enemies were discovered retreating, and the numbers of their slain were quite surprising. These, as they dropped, were, with highly dramatic action, severally and immediately trampled down and knelt upon, and hacked and chopped repeatedly with knives, whilst the slayer continued showing his savage wrath by worrying his supposed victim with all the angry energy that dogs display when fighting. This triumphal entry over, Kanoni led us into his boma, and treated us with sour curd. Then, at my request, he assembled his principal men and greatest travellers to debate upon the Nyanza. One old man, shrivelled by age, stated that he had travelled up the western shores of the Nyanza two moons (sixty days) consecutively,

had passed beyond Karagwah into a country where coffee grows abundantly, and is called Muanyé. He described the shrub as standing between two and three feet high, having the stem nearly naked, but much branched above; it grows in large plantations, and forms the principal article of food. The people do not boil and drink it as we do, but pulverise and form it into porridge or cakes. They also eat the berry raw, with its husk on. The Arabs are very fond of eating these berries raw, and have often given us some. They bring them down from Uganda, where, for a pennyworth of beads, a man can have his fill. When near these coffee plantations, he (our informer) visited an island on the lake, called Kitiri, occupied by the Watiri, a naked lot of beings, who subsist almost entirely on fish and coffee. The Watiris go about in large canoes like the Tanganyika ones; but the sea-travelling, he says, is very dangerous. In describing the boisterous nature of the lake, he made a rumbling, gurgling noise in his throat, which he increased and diversified by pulling and tapping at the skin covering the apple, and by puffing and blowing with great vehemence indicated extraordinary roughness of the elements. The sea itself, he said, was boundless. Kanoni now told me that the Muingira river lies one day's journey N.N.W. of this, and drains the western side of the Msalala district into the southern end of the Nyanza creek. It is therefore evident that those extensive lays in the Nindo and Salawé districts which we crossed extend down to this river, which accounts for there being so many wild animals there: water being such an attractive object in these hot climes, all animals group round it. Kanoni is a dark, square, heavy-built man, very fond of imbibing pombe, and, like many tipplers, overflowing with human kindness, especially in his cups. He kept me up several hours to-night, trying to induce me to accept a bullock, and to eat it in his boma, in the same manner as I formerly did with his brother. He was much distressed because I would not take the half of my requirements in cattle from

him, instead of devoting everything to his brother Kurua; and not till I assured him I could not stay, but instead would leave Bombay and some Belooches with cloth to purchase some cows from his people, would he permit of my turning in to rest. It is strange to see how very soon, when questioning these negroes about anything relating to geography, their weak brains give way, and they can answer no questions, or they become so evasive in their replies, or so rambling, that you can make nothing out of them. It is easily discernible at what time you should cease to ask any further questions; for their heads then roll about like a ball upon a wire, and their eyes glass over and look vacantly about as though vitality had fled from their bodies altogether. Bombay, though, is a singular exception to this rule; but then, by long practice, he has become a great geographer, and delights in pointing out the different features on my map to his envying neighbours.

16th.—We came to Mgogwa this morning, and were received by Kurua with his usual kind affability. Our entrance to his boma was quiet and unceremonious, for we came there quite unexpectedly—hardly giving him time to prepare his musket and return our salute. Though we were allowed a ready admission, a guinea-fowl I shot on the way was not. The superstitious people forbade its entrance in full plumage, so it was plucked before being brought inside the palisade. Kurua again arranged a hut for my residence, and was as assiduous as ever in his devotion to my comforts. All the elders of the district soon arrived, and the usual debates commenced. Kurua chiefly trades with Karagwah and the northern kingdoms, but no one could add to the information I had already obtained. One of his men stated that he had performed the journey between Pangani (latitude 5° south), on the east coast of Africa, and Lake Nyanza three times, in about two months each time. The distance was very great for the little time it took him; but then he had to go for his life the whole way, in consequence of the Masai, or Wahumba, as some call them, being so inimical to strangers

of any sort that he dare not stop or talk anywhere on the way. On leaving Pangani, he passed through Usambara, and entered on the country of the warring nomadic race, the Masai; through their territories he travelled without halting until he arrived at Usukuma, bordering on the lake. His fear and speed were such that he did not recognise any other tribes or countries besides those enumerated. Wishing to ascertain what number of men a populous country like this could produce in case of an attack, and to gain some idea of savage tactics, I proposed having a field-day. Kurua was delighted with the idea, and began roaring and laughing about it with his usual boisterous energy, to the great admiration of all the company. The programme was as follows:—At 3 P.M. on the 17th, Kurua and his warriors, all habited and drawn up in order of battle, were to occupy the open space in front of the village, whilst my party of Belooches, suddenly issuing from the village, would perform the enemy and commence the attack. This came off at the appointed time, and according to orders the forces were drawn up, and an engagement ensued. The Belooches, rushing through the passages of the palisaded village, suddenly burst upon the enemy, and fired and charged successively; to which the Wamandas replied with equal vigour, advancing with their frog-like leaps and bounds, dodging and squatting, and springing and flying in the most wild and fantastic manner; stabbing with their spears, protecting with their shields, poisoning with bows and arrows pointed, and mingling with the Belooches, rushed about striking at and avoiding their guns and sabres. But all was so similar to the Senagongo display that it does not require a further description. The number of Kurua's forces disappointed me,—I fear the intelligence of the coming parade did not reach far. The dresses they wore did credit to their nation—some were decked with cock-tail plumes, others wore bunches of my guinea-fowl's feathers in their hair, whilst the chiefs and swells were attired in long red baize mantles, consisting of a

strip of cloth four feet by twenty inches, at one end of which they cut a slit to admit the head, and allowed the remainder to hang like a tail behind the back. Their spears and bows are of a very ordinary kind, and the shield is constructed something like the Kaffir's, from a long strip of bull's hide, which they painted over with ochreish earth. The fight over, all hands rushed to the big drums in the cow-yard, and began beating them as though they deserved a drubbing: this "sweet music" set everybody on wires in a moment, and dancing never ceased till the sun went down, and the cows usurped the revelling-place. Kurua now gave me a good milch-cow and calf, and promised two more of the same stamp. Those which were brought by the common people were mere weeds, and dry withal; they would not bring any good ones, I think, from fear of the sultan's displeasure, lest I should prefer theirs to his, and deprive him of the consequent profits. My chief reason for leaving Bombay behind at Senagongo was, that business was never done when I was present. For, besides staring at me all day, the people speculated how to make the most of the chance offered by a rich man coming so suddenly amongst them, and in consequence of this avariciousness offered their cattle at such unreasonable prices as to preclude the transaction of any business.

18th. — Halt. My anticipations about the way of getting cows proved correct, for Bombay brought twelve animals, costing twenty-three dhotis Amerikan and nine dhotis kiniki. Kurua now gave me another cow and calf, and promised me two more when we arrived at the Ukumbi district, as he did not like thinning one herd too much. I gave in return for his present one barsati, five dhotis Amerikan, and two dhotis kiniki, with a promise of some gunpowder when we arrived at Unyanyembé, for he is still bent on going there with me. Perhaps I may consider my former obstruction in travel by Kurua a fortunate circumstance, for though the eldest brother's residence lay directly in my way, he might not possess so

kind a nature as these two younger brothers. Still I cannot see any good reason for the Kirangozi abandoning the proper road: there certainly could be no more danger on the one side than on the other, and all would be equally glad to have had me. It is true that I should have had to pass through his enemies' hands to the other brother, and such a course usually excites suspicion; but, by the usual custom of the country, Kurua should have been treated by him only as a rebellious subject, for though all three brothers were by different mothers, they are considered in line of succession as ours are, when legitimately begotten by one mother. Some time ago the eldest brother made a tool of an Arab trader, and with that force on his side threatened these two brothers with immediate destruction unless they resigned to him the entire government, and his rights as senior. They admitted in his presence the justness of his words and the folly of waging war, as such a measure could only bring destruction on all alike; but on his departure they carried on their rule as before. Bombay, talking figuratively with me, considers Kurua's stopping me something like the use the monkey turned the cat's paw to; that is, he stopped me simply to enhance his dignity, and gain the minds of the people by leading them to suppose I saw justice in his actions. Pombe-brewing, the chief occupation of the women, is as regular here as the revolution of day and night, and the drinking of it just as constant. It is made of bajeri and jowari (common millets), and is at first prepared by malting in the same way as we do barley; then they range a double street of sticks, usually in the middle of the village, fill a number of pots with these grains mixed in water, which they place in continuous line down the street of sticks, and, setting fire to the whole at once, boil away until the mess is fit to put aside for refining: this they then do, leaving the pots standing three days, when fermentation takes place and the liquor is fit to drink. It has the strength of labourers' beer, and both sexes drink it alike. This fermented bever-

age resembles pig-wash, but is said to be so palatable and satisfying—for the dregs and all are drunk together—that many entirely subsist upon it. It is a great help to the slave-masters, for without it they could get nobody to till their ground; and when the slaves are required to turn the earth, the master always sits in judgment with lordly dignity, generally under a tree, watching to see who becomes entitled to a drop. In the evening my attention was attracted by small processions of men and women, possessed of the Phépo, or demon, passing up the palisaded streets, turning into the different courts, and paying each and every house by turns a visit. The party advanced in slow funereal order, with gently springing, mincing, jogging action, some holding up twigs, others balancing open baskets of grain and tools on their heads, and with their bodies, arms, and heads in unison with the whole hobbling bobbling motion, kept in harmony to a low, mixed, droning, humming chorus. As the Sultan's door was approached, he likewise rose, and, mingling in the crowd, performed the same evolutions. This kind of procession is common at Zanzibar: when any demoniacal possessions take place in the society of the blacks, it is by this means *they* cast out devils. While on the subject of superstition, it may be worth mentioning what long ago struck me as a singular instance of the effect of supernatural impression on the uncultivated mind. During boyhood my old nurse used to tell me with great earnestness of a wonderful abortion shown about in the fairs of England, of a child born with a pig's head; and as solemnly declared that this freak of nature was attributable to the child's mother having taken fright at a pig when in the interesting stage. The case I met in this country is still more far-fetched, for the abortion was supposed to be producible by indirect influence on the wife of the husband taking fright. On once shooting a pregnant Kudu doe, I directed my native huntsman, a married man, to dissect her womb and expose the embryo; but he shrank from the work with horror, fearing lest the sight of the kid,

striking his mind, should have an influence on his wife's future bearing, by metamorphosing her progeny to the likeness of a fawn.

19th.—We bade Kurua adieu in the early morning, as a caravan of his had just arrived from Karagwah, and appointed to meet at the second station, as marching with cattle would be slow work for him. Our march lasted nine miles. The succeeding day we passed Ukumbi, and arrived at Uyombo. On the way I was obliged to abandon one of the donkeys, as he was completely used up. This made up our thirty-second loss in asses since leaving Zanzibar. My load of beads was now out, and I had to purchase rations with cloth—a necessary measure, but not economical, for the cloth does not go half as far as beads of the same value. I have remarked throughout this trip, that in all places where Arabs are not much in the habit of trading, very few cloths find their way, and in consequence the people take to wearing beads; and beads and baubles are the only foreign things much in requisition.

As remarks upon the relative valuation of commodities appear in various places in this diary, I will endeavour to give a general idea how it is that I have found this plentiful country—quite beyond any other I have seen in Africa in fertility and stock—so comparatively dear to travel in. The Zanzibar route to Ujiji is now so constantly travelled over by Arabs and Sowahilis, that the people, seeing the caravans approach, erect temporary markets, or come hawking things for sale, and the prices are adapted to the abilities of the purchasers; and at such markets our Shaykh bought for us, and transacted all business. It is also to be observed that where things are brought for sale, they are invariably cheaper than in those places where one has to seek and ask for them; for in the one instance a livelihood is the consequence of trade, whereas in the other a chance purchaser is treated as a windfall to be made the most of. Now this line is just the opposite to the Ujiji one, and therefore dear; but added to those influences here, the sultans, to increase

their own importance whilst having me their guest, invariably gave out that I was no peddling Arab or Sowahili, as they say, "Bana Warungwana," for Zanzibar merchant; but an independent Mundéwa, or Sultan of the Wazungu (white or wise men), and the people took the hint to make me pay or starve. Then again, not having the Shaykh with me, I had to pay for and settle everything myself, and from having no variety of beads in this exclusively bead country, there was great inconvenience.

Kurua now joined us, and reported the abandoned donkey dead. A cool shower of rain fell, to the satisfaction of every thirsty soul. It is delightful to observe the freshness which even one partial shower imparts to all animated nature after a long-continued drought.

24th.—During the last four days we have marched fifty-eight miles, and are now at our old village in Ulékampuri. As we have now traversed all the ground, I must try to give a short description, with a few reflections on the general character of all we have seen or heard, before concluding this diary. To give a faithful idea of a country, it is better that the object selected for comparison should incline to the large and grander scale than to the reverse, otherwise the reader is apt to form too low an idea of it. And yet, though this is leaning to the smaller, I can think of no better comparison for the surface of this high land than the long sweeping waves of the Atlantic Ocean; and where the hills are fewest, and in lines, they resemble small breakers curling on the tops of the rollers, all irregularly arranged, as though disturbed by different currents of wind. Where the hills are grouped, they remind me of a small chopping sea in the Bristol Channel. That the hills are nowhere high, is proved by the total absence of any rivers along this line, until the lake is reached; and the passages between or over them are everywhere gradual in their rise; so that in travelling through the country, no matter in which direction, the hills seldom interfere with the line of march. The flats and hollows are

well peopled, and cattle and cultivation are everywhere abundant. The stone, soil, and aspect of this tract is uniform throughout. The stone is chiefly granite, the rugged rocks of which lie like knobs of sugar over the surface of the little hills, intermingled with sandstone in a highly ferruginous state; whilst the soil is an accumulation of sand the same colour as the stone, a light brownish grey, and appears as if it were formed of disintegrated particles of the rocks worn off by time and weathering. Small trees and brushwood cover all the outcropping hills; and palms on the plains, though few and widely spread, prove that water is very near the surface. Springs, too, are numerous, and generally distributed. The mean level of the country between Unyanyembé and the Lake is 3767 feet; that of the Lake itself, 3750. The tribes, as a rule, are well disposed towards all strangers, and wish to extend their commerce. Their social state rather represents a conservative than a radical disposition; and their government is a sort of semi-patriarchal-feudal arrangement, and, like a band of robbers, all hold together from feeling the necessity of mutual support. Bordering the south of the Lake, there are vast fields of iron; cotton is also abundant; and every tropical plant or tree could grow; those that do exist, even rice, vegetate in the utmost luxuriance. Cattle are very abundant, and hides fill every house. On the east of the Lake, ivory is said to be very abundant and cheap; and on the west we hear of many advantages which are especially worthy of our notice. The Karagwa hills overlooking the lake are high, cold, and healthy, and have enormous droves of cattle bearing horns of stupendous size; and ivory, fine timber, and all the necessaries of life, are to be found in great profusion there. Again, beyond the equator, of the kingdom of Uganda we hear from everybody a rapturous account. That country evidently swarms with people who cultivate coffee and all the common grains, and have large flocks and herds, even greater than what I have lately seen. Now if the Nyanza be really the Nile's fount, which I sincerely believe to be the case, what

an advantage this will be to the English merchant on the Nile, and what a field is opened to the world, if, as I hope will be the case, England does not neglect this discovery!

But I must not expatiate too much on the merits and capabilities of inner Africa, lest I mislead any commercial inquirers; and it is as well to say at present, that the people near the coast are in such a state of slothful helplessness and insecurity, that for many years, until commerce, by steady and certain advance, shall in some degree overcome the existing apathy, and excite the population to strive to better their position, no one need expect to make a large fortune by dealing with them. That commerce does make wonderful improvements on the barbarous habits of the Africans, can now be seen in the Masai country, and the countries extending north-westward from Mombas up through Kikuyu into the interior, where the process has been going on during the last few years. There even the roving wild pastorals, formerly untamable, are now gradually becoming reduced to subjection; and they no doubt will ere long have as strong a desire for cloths and other luxuries as any other civilised beings, from the natural desire to equal in comfort and dignity of appurtenances those whom they now must see constantly passing through their country. Caravans are penetrating farther, and going in greater numbers, every succeeding year, in those directions, and Arab merchants say that those countries are everywhere healthy. The best proof we have that the district is largely productive is the fact that the caravans and competition increase on those lines more and more every day. I would add, that in the meanwhile the staple exports derived from the far interior of the continent will consist of ivory, hides, and horns; whilst from the coast and its vicinity the clove, the gum copal, some textile materials drawn from the banana, aloe and pine-apples, with oleaginous plants such as the groundnut and cocoa-nut, are the chief exportable products. The cotton plant which grows here, judging

from its size and difference from the plant usually grown in India, I consider to be a tree cotton and a perennial. It is this cotton which the natives weave into coarse fabrics in their looms. Then, again, the coffee-plant of Ugauda, before alluded to, being a native of that place, and being consequently easily grown, ought in time to afford a very valuable article of export. Rice, although it is not indigenous to Africa, I believe is certainly capable of being produced in great quantity and of very superior quality; and this is also the case with sugarcane and tobacco, both of which are grown generally over the continent. There is also a species of palm growing on the borders of the Tanganyika Lake, which yields a concrete oil very much like, if not the same as, the palm-oil of Western Africa; but this is limited, and would never be of much value. Salt, which is found in great quantity in pits near the Malagarazi River, and the iron I have already spoken about, could only be of use to the country itself in facilitating traffic, and in maturing its resources.

It is a singular piece of luck that, with a few pounds' worth of kit, I should, in the course of three weeks, have discovered and brought to light a matter, the importance of which cannot be over-estimated, and on which endless sums have been fruitlessly lavished for ages past by ambitious monarchs, and eager and enterprising governments. Thousands of years, I may say from Ptolemy to the present time, has this inquiry been going on, and now, so far as the main features and utility of such discovery are concerned, it is well-nigh, if not entirely, solved. But out of justice to my commandant, Captain Burton, I must add that the advantages over all other men, under which I accomplished the journey, are solely attributable to him. For I was engaged in organising an expedition in another quarter of the globe when he induced me to relinquish it, by inviting me to co-operate with him in opening up Africa; and this brought me to Kazeu, the starting-point for my separate journey. These fertile regions have been

hitherto unknown from the same cause which Dr Livingstone has so ably explained in regard to the western side of Africa—the jealousy of the shortsighted people who live on the coast, who, to preserve a monopoly of one particular article exclusively to themselves (ivory), have done their best to keep everybody away from the interior. I say shortsighted, for it is obvious that, were the resources of the country once fairly opened, the people on the coast would double or triple their present incomes, and Zanzibar would soon swell into a place of real importance. All hands would then be employed, and luxury would take the place of beggary.

I must now (after expressing a fervent hope that England especially, and the civilised world generally, will not neglect this land of promise) call attention to the marked fact, that the Church missionaries, residing for many years at Zanzibar, are the prime and first promoters of this discovery. They have been for years past doing their utmost, with simple sincerity, to Christianise this negro land, and promote a civilised and happy state of existence for these benighted beings. During their sojourn among these blackamoors, they heard from Arabs and others of many of the facts I have now stated, but only in a confused way, such as might be expected in information derived from an uneducated people. Amongst the more important disclosures made by the Arabs was the constant reference to a large lake or inland sea, which their caravans were in the habit of visiting. It was a singular thing that, at whatever part of the coast the missionaries arrived, on inquiring from the travelling merchants where they went to, they one and all stated to an inland sea, the dimensions of which were such that nobody could give any estimate of its length or width. The directions they travelled in pointed north-west, west, and south-west, and their accounts seemed to indicate a single sheet of water, extending from the Line down to 14° south latitude—a sea of about 840 miles in length, with an assumed breadth of two to three hundred miles. In fact, from

this great combination of testimony that water lay generally in a continuous line from the equator up to 14° south latitude, and, from not being able to gain information of there being any territorial separations to the said water, they very naturally, and I may add fortunately, created that monster slug of an inland sea which so much attracted the attention of the geographical world in 1855-56, and caused our being sent out to Africa. The good that may result from this little, yet happy accident, will, I trust, prove proportionately as large and fruitful as the produce from the symbolical grain of mustard-seed; and nobody knows or believes in this more fully than one of the chief promoters of this exciting investigation, Dr Rebmann. From these late explorations, he feels convinced, as he has oftentimes told me, that the first step has been taken in the right direction for the development of the commercial resources of the country, the spread of civilisation, and the extension of our geographical knowledge.

As many churchmen, missionaries, and others, have begged me to publish what facilities are open to the better prosecution of their noble ends in this wild country, I would certainly direct their attention to the Karagwah district, in preference to any other. There they will find, I feel convinced, a fine healthy country; a choice of ground from the mountain-top to the level of the Lake, capable of affording them every comfort of life which an isolated place can produce; and being the most remote region from the coast, they would have less interference from the Mohammedan communities that reside by the sea. But then, I think, missionaries would have but a poor chance of success unless they went there in a body, with wives and families all as assiduous in working to the same end as themselves, and all capable of other useful occupations besides that of disseminating the gospel, which should come after, and not before, the people are awake and prepared to receive it. As that country must be cold in consequence of its great altitude, the people would much sooner than in the hotter and more enervat-

ing lowlands, learn any lessons of industry they might be taught. To live idle in regard to everything but endeavouring to cram these empty-headed negroes with Scriptural doctrines, as has too often been and now is done, is, although apparently the straightest, the longest way to reach the goal of their desires.

The missionary, I think, should be a Jack-of-all-trades—a man that can turn his hand to anything; and being useful in all cases, he would, at any rate, make himself influential with those who were living around him. To instruct him is the surest way of gaining a black man's heart, which, once obtained, can easily be turned in any way the preceptor pleases, as is the case with all Asiatics: they soon learn to bow to the superior intellect of the European, and, like children, are as easily ruled as a child is by his father. No better illustration of that can be found than in the Indian irregular corps, where there is one chief to rule over them, and the interest is consequently undivided. The opposite, again, is to be found in the regulars, where the power is divided, and all, as we have lately seen, have gone to the dogs.

25th.—We left Ulékampuri at 1 A.M., and marched the last eighteen miles into Kazez under the delightful influence of a cool night and a bright full moon. As the caravan, according to its usual march of single file, moved along the serpentine footpath in peristaltic motion, firing muskets and singing "the return," the Unyanyembé villagers, men, women, and children, came running out and flocking on it, piercing the air with loud shrill noises, accompanied with the lullabooing of these *fairs*, which, once heard, can never be mistaken. The crowd was composed in great part of the relatives of my porters, who evinced their feelings towards their adult masters as eagerly as stray deer do in running to join a long-missing herd. The Arabs, one and all, came out to meet us, and escorted us into their depôt. Their congratulations were extremely warm, for they had been anxious for our safety in consequence of sundry rumours abroad concerning the war-parties

which lay in my track. Captain Burton greeted me on arrival at the old house, where I had the satisfaction of finding him greatly restored in health, and having everything about him in a high state of preparation for the journey homewards.

It affords me great pleasure to be able to report the safe return of the expedition in a state of high spirits and gratification. All enjoyed the salubrity of the climate, the kind entertainments of the sultans, the variety and richness of the country, and the excellent fare everywhere. Further, the Belooches, by their exemplary conduct, proved themselves a most efficient, willing, and trustworthy guard, and are deserving of the highest encomiums; they, with Bombay, have been the life and success of everything, and I sincerely hope they may never be forgotten.

Thus ends my Second Expedition. The Arabs told me I could reach the Nyanza in fifteen to seventeen marches, and I have returned in sixteen, although I had to take a circuitous line instead of a direct one. The provisions, too, have just held out. I took a supply for six weeks, and have completed *that time this day*. The total road-distance there and back is 452 miles, which, admitting that the Arabs make sixteen marches of it, gives them a marching rate of more than fourteen miles a-day.

The temperature is greater at this than at any other time of the year, in consequence of its being the end of the dry season; still, as will be seen by the annexed register of one week, the Unyamuézi plateau is not unbearably hot, and far less so than the Indian plains.

Thermometer hung in a passage of our house showed—Morning, Noon, and Afternoon respectively—

6 A.M.	9 A.M.	Noon.	3 P.M.	6 P.M.	
73°	75°	84°	86°	84°	Mean temperature during first week or seven days of September 1858.
71°	88°	...	Extreme: difference, 17° of variation during twelve hours of day.

Thermometer suspended from ridge-pole of a one-cloth tent pitched in a close yard—

6 A.M.	9 A.M.	Noon.	3 P.M.	6 P.M.	
65°	85°	108°	107°	80°	Mean temperature.
63°	..	.	113°	..	Extreme: difference, 60° of variation.

List of Stores along this Line.

Rice is grown at Unyanyembé, or wherever the Arabs settle, but is not common, as the negroes, considering it poor food, seldom eat it.

Animal.

Cows, sheep, goats, fowls, donkeys, eggs, milk, butter, honey.

P. S.—Donkeys are very scarce; only found in a few places in the Unyamuézi country.

Vegetable.

Rice, jowari, bagri, maize, manioc, sweet potatoes, yams, pumpkins, melons, cucumbers, tobacco, cotton, pulse in great varieties, chilis, bénghans, plantains, tomatoes.

The Quantity of Kit taken for the Journey consisted of—

- 9 Gorahs Amerikan, 1 Gorah or piece of American sheeting = 15 cloths of 4 cubits each.
 - 30 Do. Kiniki, 1 Gorah Kiniki, a common indigo-dyed stuff, = 4 cloths of 4 cubits each.
 - 1 Sahari, a coloured cloth.
 - 1 Uzar Dubwani, do.
 - 2 Barsati, do.
 - 20 Maunds white beads = 60 lb.
 - 3 Loads of rice grown at Unyanyembé by the Arabs.
- } These cloths are more expensive, being of better stuff, and are used chiefly by the sultans and other black swells.

Expenditure for the Journey from 9th July to 25th August 1858.

	Value.
10 Belooches' wages, 150 shukkas, or 4 cubits a-piece Amerikan,	= 100\$
Do. rations, given in advance, 30 lb. white beads,	= 5
15 Pagazis' wages, 75 shukkas Amerikan,	= 50
26 Men, including self, rations, 60 lb. white beads,	= 10
2 Pagazis, extra wages, 7 shukkas of Amerikan and Kiniki mixed,	= 5
6 Sultan's kuhongos or presents, 22 shukkas of Amerikan and Kiniki, mixed,	= 16
Do. do. do. 2 barsatis,	= 2
Total expenditure,	188\$
	Or £39, 3s. 4d.

As the shells which I found on the Tanganyika Lake have now been compared at the British Museum, and have been reported on by their

conchologist, Mr S. P. Woodward, F.G.S., I will give the account of them in his own words, in an appendix.

APPENDIX.

ON SOME NEW FRESH-WATER SHELLS FROM CENTRAL AFRICA. BY S. P. WOODWARD, F.G.S. COMMUNICATED BY PROFESSOR OWEN.

(Mollusca, Pl. XLVII.)

The four shells which form the subject of the present note were collected by Captain Speke in the great fresh-water Lake Tanganyika, in Central Africa.

The large bivalve belongs to the genus *Iridina*, Lamarck,—a group of river-mussels, of which there are nine reputed species, all belonging to the African continent. This little group has been divided into several sub-genera. That to which the new shell belongs is distinguished by its broad and deeply-wrinkled hinge-line, and is called *Pleiodon* by Conrad. The posterior slope of this shell is encrusted with tufa, as if there were limestone rocks in the vicinity of its habitat.

The small bivalve is a normal *Unio*, with finely-sculptured valves.

The smaller univalve is concave beneath, and so much resembles a *Nerita* or *Calyptraea* that it would be taken for a sea-shell if its history were not well authenticated. It agrees essentially with *Lithoglyphus*—a genus peculiar to the Danube, for the American shells referred to it are probably, or, I may say, certainly, distinct. It agrees with the Danubian shells in the extreme obliquity of the aperture, and differs in the width of the umbilicus, which in the European species is nearly concealed by the callous columellar lip.

In the Upper Eocene Tertiaries of the Isle of Wight there are several estuary shells, forming the genus *Globulus*, Sow., whose affinities are uncertain, but which resemble *Lithoglyphus*.

The Lake Tanganyika (situated in lat. 3° to 8° S. and long. 30° E.), which is

several hundred miles in length, and 30 to 40 in breadth, seems entirely disconnected with the region of the Danube: but the separation may not always have been so complete, for there is another great lake, Nyanza, to the northward of Tanganyika, which is believed by Speke to be the principal source of the Nile.

The other univalve is a *Melania*, of the sub-genus *Melanella* (Swainson), similar in shape to *M. hollandi* of S. Europe, and similar to several Eocene species of the Isle of Wight. Its colour, solidity, and tuberculated ribs, give it much the appearance of a small marine whelk (*Nassa*); and it is found in more boisterous waters, on the shores of this great inland sea, than most of its congeners inhabit.

1. IRIDINA (PLEIODON) SPEKII, n. sp.

Shell oblong, ventricose, somewhat attenuated at each end; base slightly concave; epidermis chestnut-brown, deepening to black at the margin; anterior slope obscurely radiated; hinge-line compressed in front and tuberculated, wider behind, and deeply wrinkled.

Testa oblonga, tumida, extremitatibus fere attenuata, basi subarcuata; epidermide castaneo-fusca, marginem versus nigricante; linea cardinali antice compressa tuberculata, postice latiore, paucis rugis arata.

2. UNIO BURTONI, n. sp.

Shell small, oval, rather thin, somewhat pointed behind; umbones small, not eroded; pale olive, concentrically furrowed, and sculptured more or less

with fine divaricating lines; anterior teeth narrow, not prominent; posterior teeth laminar; pedal scar confluent with anterior adduction.

Testa parva, ovalis, tenuiuscula, postice subattenuata; umbonibus parvis, acuminatis; epidermide pallide olivacea; valvis lincolis divaricatis, decussatim exaratis; dentibus cardinalibus angustis, haud prominentibus.

3. LITHOGLYPHUS ZONATUS, n. sp.

Shell orbicular, hemispherical; spire very small; aperture large, very oblique; umbilicus wide and shallow, with an open fissure in the young shell; lip continuous in front with the umbilical ridge; columella callous, ultimately covering the fissure; body-whorl flattened, pale olivaceous, with two brown bands, darker at the apex; lines of growth crossed by numerous oblique, interrupted striæ.

Testa orbicularis, hemisphærica, late umbilicata (apud junior rimata), spira minuta; apertura magna, valde obliqua; labio calloso (in testa adulta rimam tegente) pallide olivacea, fasciis duabus fuscis zonata; lineis incrementi striolis interruptis obliquatim decussatis.

4. MELANIA (MELANELLA) NASSA, n. sp.

Shell ovate, strong, pale brown, with (sometimes) two dark bands; spire shorter than the aperture; whorls flattened, ornamented with six brown spiral ridges crossed by a variable number of white, tuberculated, transverse ribs; base of body-whorl with eight tuberculated spiral ridges variegated with white and brown; aperture sinuated in front; outer lip simple; inner lip callous.

Testa ovata, solida, pallide fusca, zonis 2 nigricantibus aliquando notata; spira apertura brevior; anfractibus planulatis, lineis 6 fuscis spiralibus et costis tuberculatis ornatis; apertura antice sinuata; labro simplici; labio calloso.

P.S. July 27th —In addition to the foregoing shells, several others were collected by Capt. Speke, when employed, under the command of Capt. Burton, in exploring Central Africa in the years 1856-59; these were deposited at the Geographical Society, and are now transferred to the British Museum.

A specimen of *Ampullaria (Lanistes) sinistrorsa*, Lea, and odd valves of two species of *Unio* both smooth and olive-coloured, were picked up in the Ugogo district, an elevated plateau in lat. 6° to 7° S., long. 34° to 35° E.

A large *Achatina*, most nearly related to *A. glutinosa*, Pfr., is the "common snail" of the region between lake Tanganyika and the East coast. Fossil specimens were obtained in the Usagara district, at a place called Maroro, 3000 feet above the sea, overlooking the Lufigi River, where it intersects the coast-range (lat. 7° to 8° S., long. 36° to 37° E.)

Another common land-snail of the same district is the well-known "*Bulimus caillaudi*, Pfr.," a shell more nearly related to *Achatina* than *Bulimus*.

Captain Speke also found a solitary example of *Bulimus ovoideus*, Brug., in a musjid on the island of Kilwa (lat 9° S., long. 39° to 40° E.) This species is identical with *B. grandis*, Desh., from the island of Nosse Bé, Madagascar, and very closely allied to *B. liberianus*, Lea, from Guinea.

P.S.—It may be interesting as well as useful to many readers of this Magazine, to know that Dr Petermann is "now drawing up all Knochlicher's astronomical observations, and intends to make a map shortly of the Upper Nile, as far as he has seen it." These observations are the ones alluded to in the body of my journal, and, as I mentioned there, were kindly furnished me by Dr Petermann.

P.P.S.—The map which is contained in the September number of this Magazine, I have called a sketch map. It was hastily drawn from my rough work-books kept on the journey, and very probably contains some errors. I would, therefore, advise all geographical inquirers to apply to the Royal Geographical Society of London a few weeks hence, when all my observations will have been recomputed, and a correct map will have been drawn up from them.

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