

maps, a remark which he does not venture in the case of the former ones.

It may appear unreasonable, but the very circumstance that he states that he is almost certain that the Yar-kioute-tsanpo is the Irawady, would make me doubt that he was in a position to form a sound opinion on the course of the other Tibetan rivers.

I strongly suspect that Mr. Cooper's friend was J. Thomine Mazare, Vicar Apostolic of Tibet, who communicated similar views on the distribution of these rivers, including the Tsanpo, to Bishop Bigimdit, of Rangoon, in August, 1859, and on which Colonel Yule commented. I am led to this conclusion by the very strong similarity in the particulars of the notes communicated to Mr. Cooper to those published by the Bishop.

I may state that I have written to Captain Bowers, my fellow-traveller in the Yunan expedition, now stationed at Bhamo, pressing on him the importance of settling this question by a personal investigation of Wilcox's River where it joins the main stream of the Irawady, and that from the interest Captain Bowers takes in everything affecting the Irawady, I believe that we shall have an early solution of this problem.

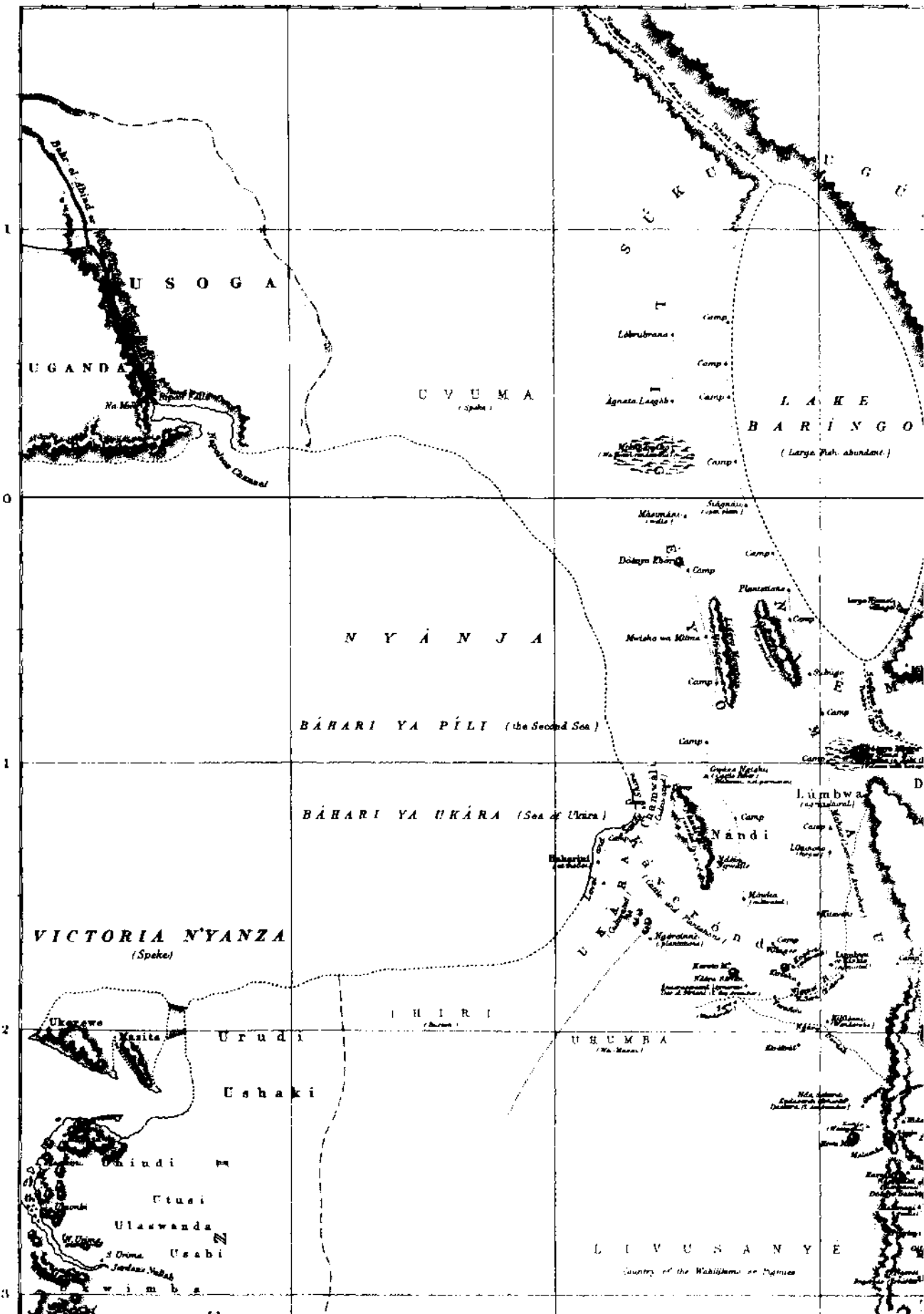
XI.—*Routes of Native Caravans from the Coast to the interior of Eastern Africa, chiefly from information given by Sádi Bin Ahédi, a native of a district near Gázi, in Udigo, a little north of Zanzibar.* By T. WAKEFIELD, Missionary at Mombasa.

No. 1.—FROM TÁNGA TO LAKE NYÁNZA (OR NYANJA).

Tánga to Bwiti.—(A full day's march). [12 hours.]

At Bwiti there are many villages. The inhabitants are Wadígo and Wasegéju; these occupy the *plain*. The summit of the hill is occupied by Wa-Teíta, and is laid out into plantations. The hill is probably about 500 or 600 feet high.

Bwiti to Dongo Kundu.—At Dongo Kundu there are villages, 2 or 3 miles to the south-west of camp. Agriculturist Wakwávi live there, and till the ground. The *soil* of this region (Dongo Kundu) is *red*, called by the Sawahilis—"ngéu," and is used extensively by East Africans (having been mixed with oil), for lubricating their bodies. The redness of the ground commences at Bwiti, but is more extensive, and more deeply coloured, at Dongo Kundu; the latter place taking its name from the nature of the soil,—Dongo, meaning *clay, earth, or soil* in the *plural*, (udongo, in the *singular*); and Kundu, *red*. [7 hours.]



USOGA

UGANDA

CVUMA
(Spoke)

S U C K E T

L A K E
B A R I N G O
(Large Fish abundant)

N Y A N J A

B A H A R I Y A P I L I (the Second Sea)

B A H A R I Y A U K A R A (Sea of Ukara)

VICTORIA NYANZA
(Spoke)

I H I R I
(Spoke)

U R U M B A
(No. Manu)

L I V U S A N Y E
Country of the Wabihama or Nyman

Ukerewe

Kasita

Urudi

Eshaki

Umuindi

Utusi

Ulaswanda

Usabi

St. Dingo
St. Orma
Jardas, Nalab

Lokubana Camp

Camp

Agnata Laghib Camp

Camp

Masmani

Siganaia

Dogya Phor

Camp

Camp

Nutaka wa Mima

Camp

Plantations

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Makurdi

Makurdi

Makurdi

Makurdi

Makurdi

Makurdi

Makurdi

Makurdi

Makurdi

Makurdi

Makurdi

Makurdi

Opaka Nigala

Opaka Nigala

Opaka Nigala

Opaka Nigala

Opaka Nigala

Opaka Nigala

Opaka Nigala

Opaka Nigala

Opaka Nigala

Opaka Nigala

Opaka Nigala

Opaka Nigala

Opaka Nigala

Opaka Nigala

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Nandi

Nandi

Nandi

Nandi

Nandi

Nandi

Nandi

Nandi

Nandi

Nandi

Nandi

Nandi

Nandi

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa

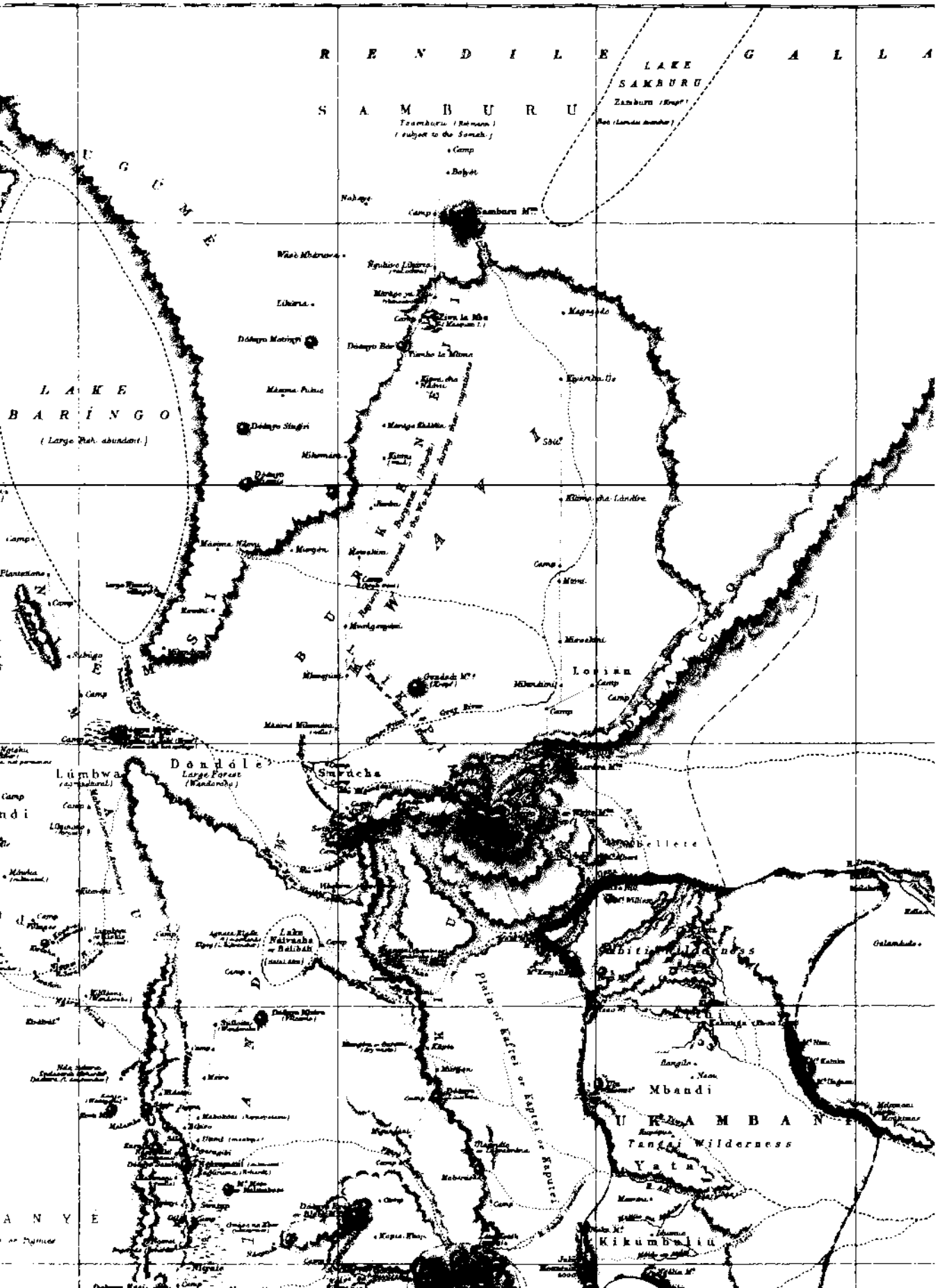
Lumbwa

Lumbwa

Lumbwa

Lumbwa

Lumbwa



R E N D I L E L A K E G A L L A

S A M B U R U

L A K E S A M B U R U

Zamburu (River)
See (Lands number)

Zamburu (River)
(subject to the Somali)

Camp

Samburu M^t

L A K E B A R I N G O

(Large Fish abundant)

Lumbwa

Dandole

Samburu

Lorian

Samburu M^t

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

Camp

U R U M B A N I

Tanga Wilderness

Yata

Kikumbaliu

Camp

Camp

BÁHARI YA PÍLI (the Second Sea)

BÁHARI YA UKÁRA (Sea of Ukara)

VICTORIA NYANZA
(Speke)

HIRI

UBUMBA

LIVUSANYE

Country of the Wabishima or Digma

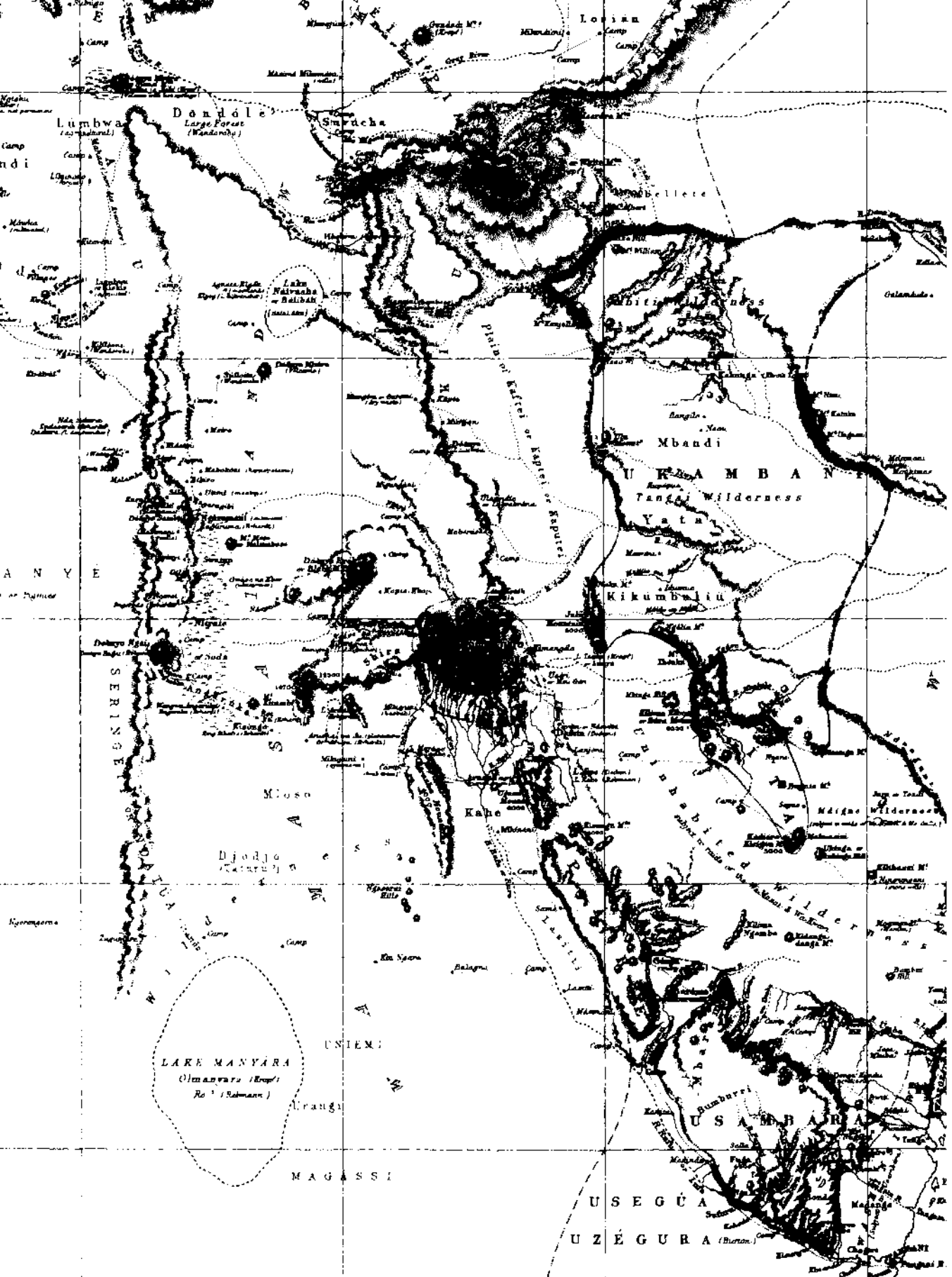
SERINGE

RAMBA

Mangewa

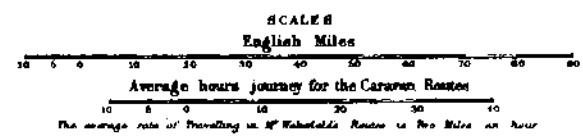
UKIMBU

Nova





A MAP
 showing the Routes of
SOME NATIVE CARAVANS
 FROM THE COAST INTO THE INTERIOR
 of
EASTERN AFRICA
from information collected by the Rev. A. T. Wakefield, Missionary at Mombasa
 also of two personal journeys
 to the
SOUTHERN GALLA COUNTRY
made by the Rev. A. T. Wakefield & C. New in 1865 and 1866



Caravan Routes are indicated thus
 Mr. Wakefield's Route in 1865
 Messrs. Wakefield & New's Route 1866

The names of Rivers are uniformly determined by or from the information of nomadic travellers (Portuguese, Arab, & Dutch), and are engraved in a thick line; Rivers derived from the reports of such travellers, and the mountains (D'Ardenne, Robinson, Esch, Wakefield &c.) are shown in a dotted character. Reported sources of more doubtful origin, in the lightest tinting. The points where rivers enter the sea, Mr. W.'s, the angular, U the land or - the, and sometimes with the arrow in the direction of the current.

Islands are indicated by the name.

Dongo Kündu to Mto wa Umba (River Umba).—This river takes its name from a district bordering on the sea-coast, near Vángá, and has its source in the Barámo Mountain. [12 hours.]

To *Mto wa Káti* (River Kati).—"Kati" means *between* or *central*. This river takes its rise in the Msíbi Mountain, which lies about two hours to the south of the encamping place at "Mto wa Káti." [6 hours.]

To *Chwère Chwère*. [6 hours.]

To *Barámo*.—The name "Barámo" is Kisámhá. There is a village here on the plain, at the base of Barámo Mountain, inhabited by Wazegúa. A chieftain lives here, whose name is Mulúgu, a son of Kimwéri. The summit of the mountain is populous, inhabited by Wasámhá. [6 hours.]

To *Gónja*.—(The name "Gonja" is Kipáre.) There are two villages of the Wazegúa, situated at the base of the mountain. Wa-Páre live on the summit, where they have *many* villages. [12 hours.]

To *Kisiwáni* (Páre district.) "Kisiwani" means *at the island*. At Lasitti there are no people. Wakwávi formerly lived there, but have long since abandoned the place. [8 hours.]

To *Sámè*.—The name "Sámè" is Kikwávi. A Kwávi chieftain and his people (who were very numerous), once lived here, but have long ago been displaced by the Masái. [8 hours.]

To *Mto wa Rúvu* (River Rúvu).—The word "Rúvu" is Kizegúa, and the river is called by the above name by the Wazegúa. This is the name by which it is known a few days in the interior; but on the *coast*, it is generally called "*Pangáni*," and is thus marked on our coast charts. It has probably received the latter designation from Pangáni, a village and district situated near its mouth, on the northern bank. [12 hours.]

To *Mihináni* (at the *hina* trees,—Muhína, sing., Mihína, pl.); the leaves of which being pounded, yield a reddish staining matter, with which the Sawahilis and others stain their fingernails, &c. Probably the "*hinna*" mentioned by Lane, as used by the "Modern Egyptians." (*Lawsonia inermis*.) [6 hours.]

To *Arúsha*.—Here are villages and plantations. The people are called Wa-Arúsha. They are descendants of the Wakwávi, and were formerly their *subjects*; but the Wakwávi having left the country, and the Masai having taken possession of an adjacent region (Sigirári), the Wa-Arúsha are now recognized as the subjects of the latter. The people of this region have a few head of cattle, but that is all. As stated above, the Wa-Arúsha are agriculturists. [9 hours.]

It was from this place (Arúsha) that Baron Von Der Decken was forced to return, in his attempt to reach the Masai country.

To *Mikindúni*.—This locality takes its name from the Mikindu (brab-trees), which flourish here, and on the banks of many African streams. [9 hours.]

To *Mikuyúni* (at the sycamores), many of which grow in this locality. [8 hours.]

To *Arúsha wa Ju*, i.e. the Arusha above, or *higher up*, in contradistinction to the Arusha of the *lower region*, nearer the coast. The people of both districts are of the same nation, and intermarry. They combine, also, in their war expeditions. They frequently unite, and make a raid on the Chága country. This people (the Arusha wa Ju), in addition to their plantations, are also rich in *kine*. In this latter respect, they differ from their kinsmen nearer the coast. Arusha wa Ju is well stocked with villages. [12 hours.]

To *Kisongo*.—The name "Kisongo," means *approach*. Sadi says it was given to this locality from the following circumstance: a very brave Mkwávi, in an engagement with a party of Masai, at this place, manifested astonishing dexterity in surprising the enemy, repeatedly coming upon them unawares. He was equally skilful in evading the weapons of the foe. Retreating for a little while, he was soon again upon the enemy, without his approach, or "kisongo" being observed! The word is Ki-Sawahili, and is derived from the verb *ku songa*, to approach, or draw near. The Masái acknowledged to the Wandoróbo, (a vassal race), that they were utterly unable to kill this man, that both spear and throwing-club had failed to strike him; when a young man (a Mdoróbo) asked them if they wished him to be killed. They replied in the affirmative. At the next encounter of the Wakwávi and Masái, the warrior mentioned above, again made his appearance, when the young Mdoróbo concealed himself in an adjacent wood, weapons in hand, and the Mkwávi bounding into the forest near his hidden foe, was shot with a poisoned arrow.

There are villages at Kisongo. The great chief of all the Masai lives at this place. About four years ago, the chief, whose name is Süvét (the Wa-Sawahili call him Subéti), having died, his son Batiyán succeeded to rule. Sadi says he is about sixty years of age. [7 hours.]

To the north-east of Kisongo, is the mountain *Méro*. It is situate two or three hours to the north of encamping-place at Arusha wa Ju.

To *Eét*.—This name is Kikwávi. There are Masai villages at Eet, but they are not permanent. There is a large mountain at Eet, called Kitúmbi. It is clothed with short grass, but has no forest. The summit is level, and the Masai live both at the base, and on the top. The villages here are permanent. [4 hours.]

To *Wángwa Angarúka*.—This name is a combination of Kisáwahili and corrupted Kikwávi. “Wángwa,” in Kisáwahili, means a *sandy plain*, and is equally applied to those which are covered with alluvial deposits from maritime rivers, and sandy plains in the interior. The Sawahilis pronounce the word *angarúka*, as above written, but the Wakwávi,—*gnarúka*. The *meaning* of this word I have forgotten. [8 hours.]

To *Mto wa Angarúka* (River Angarúka). [10 hours.]

To *Dóonyo Ngái* (Ngái Mountain). This mountain is very large. Sádi says that it is higher than *Kilima Njáro*, though not so massive. Its summit exhibits the same radiating and coruscant appearances as that of *Kilima Njáro*. Sádi says—“one moment it is yellow, like gold; the next, white, like silver; and again, black.” This exactly agrees with the account given of the glittering or radiation of the summit of *Kilima Njáro*, by all the natives who have mentioned the subject to me. Sádi says that at night, numbers of “*tawáfa*” (lighted candles) ascend from the base of the mountain to the summit. (*Ignes Fatui*.) [9 hours.]

The “*Dóonyo Ngái*” is about one day’s journey broad, situate about half an hour to the west of the camp.

To *Ngörót*.—There is a small stream at this place. [9 hours.]

To *Pínyinyi*.—This locality is called “*Vinyinyi*” by the Wakwávi, but by the Wasáwahili as above written. [8 hours.]

To *Ngúrumaní*.—Sádi says that the word “*ngúruman*” (which is Kikwávi), is synonymous with the Sáwahili verb—“*ku líma*,” to cultivate or till; and that the Wakwávi who inhabit this region, cultivate beans, millet, sweet potatoes, &c. These are poor Wakwávi, who, having long since been robbed of their cattle by the Masái, were compelled to turn their attention to agricultural pursuits, as a means of obtaining a livelihood. There are also *Gallas* in the same condition as these Wakwávi of *Ngúrumaní* and other regions,—who, having been deprived of their cattle, have been reduced to poverty. A few of these are located near *Takaúngu*, in the district of *Kaúma*, learning the art of tillage, and adopting the settled habits of an agricultural life. Poverty must have pinched them sorely to have brought them to this, for the haughty Galla “cannot dig;” he regards the occupation as only fit for those less manly than himself. All agricultural races are despised by the *Gallas*, as mean people; and those of their nation who have been reduced, by circumstances, from (what *they* consider) the light and noble occupation of the fold, to the base toil of the field, are regarded as men disgraced. The men themselves *feel* the degradation, and no doubt cast many a sorrowful look back towards the congenial, pastoral life

they have relinquished,—the daily wandering with the lowing herd among the “green pastures” of their beautiful and fertile plains, which was then a Paradise, and, like the *old* Paradise,

“———— a place of bliss, without drudgery or sorrow.”

Sádi thinks the Wakwávi of Ngúrúmani number 1000 or 1500. They are disposed over the ground, a few miles apart, like the Wanyíká tribes. [10 hours.]

To *Utími*.—“Utími” in Kikwávi, means *monkey*, and in this region there are immense numbers. From Sádi’s account of the crowds he saw here, it is evidently a favourite habitat. Utími is very populous with Masái, whose settlements are permanent. [6 hours.]

To *Mábokóni*.—This name is Sávahíli, and means at the [place] of the hippopotami; singular—Bóko, pl. Mabóko. The affix “ni,” is a locative particle, having the force of the English preposition *at* or *in*. The *diminutive* form is that generally used, when referring to the habitat of hippopotami, namely, Vibóko, sing. Kibóko. The form at the heading of this paragraph, may either be used to express the hugeness of the hippopotami of this region, or their immense numbers. [5 hours.]

To *Máiro*. [10 hours.]

To *Baráni*.—This word simply means—*in the country*, and is used on account of the district not having a specific name. [6 hours.]

To *Súllóíta*.—There are Wándoróbo villages at this place, but they are not permanent. However, there must be other settlements not far distant, for Sádi says, if a gun is fired off, the Wándoróbo hear the report, and are soon at the camp. [6 hours.]

To *Náivásha*.—This word is Kikwávi, and Sádi says means *sea*. This region has another name, *Bálíbalí*, meaning also *sea*. (There is a large *Lake* in this district, which is mentioned in the route “From Mombása to Dháicho.”) [10 hours.]

To *Agnáta Elgék*.—(Pronounced Agnát’elgék.) This name is Kikwávi. Sádi says “Agnata” means a tract of land covered only with very short grass, (moorland?); and elgék, firewood. This region is thickly dotted with withered trees, which are used for fuel, by the natives. [6 hours.]

To *Máú*. [10 hours.]

To *Lúmbwa*.—This region is called “Lúmbwa” by the Wasávahíli, but by the *natives* (Wa-Lúmbwa and Wa-Nándi), *Kiskis*. This section is very populous, and the villages are those of a settled people. They are agriculturists, and cultivate beans of different kinds (*flavé, kúndé*), millet, “wímbi” (a seed-bearing

plant, cultivated on and near the coast, and in many districts of East Africa, the seeds of which are pounded, and made into *bread*), &c., &c. They are also rich in cattle, on account of which, the Wakwávi of Ndára Serían (their south-eastern neighbours), frequently come upon them. The Wa-Lúmbwa engage them, but are unequal to a contest with them, for the Wakwávi are proverbially very brave; at times, however, they get the better of the fight, and drive off their assailants. Their weapons, like those of the Wakwávi, are spear and shield.

Their cattle, when brought from the pasturage, are put, for the night, into *houses*, and not left to sleep in *folds*, in the *open air*, like the cattle of the Masái, and of those of the natives near the coast. [10 hours.]

To *Kosóva*.—There are people here, and permanent settlements. The inhabitants are called Wa-Kosóva. They cultivate the soil, but have also plenty of cattle, which, Sádi says, are remarkably fine. Their weapons are spears and a shield. Each man carries four spears, three throwing-spears, with long shafts tapering to the end. The blades, which are short, are tipped with *poison*. The fourth spear, which is reserved for close combat, has a longer blade than those used for hurling, which is also poisoned, and the heel or end of the shaft armed with a long iron spike. These weapons are not only used for defence, but are also employed in hunting elephants and other animals. The Wa-Kosóva are very expert in hurling their light spears, which they can also throw to a great distance. Sádi says they go, quivering from the hand, and buzzing through the air, in an amazingly direct line to the mark. The *shields* these people carry are very large, larger even than those of the Masái. [6 hours.]

There is a small hill at Kosóva.

To *Káverond*.—At Kaverond, and between it and Kosóva, there are villages. The people of this place are called Wa-Kaverond. They are the same as the Wa-Kosóva, only a different tribe or clan. The language is one. Like their neighbours at Kosóva, they have cattle, and also plantations. [4 hours.]

To *Máwka* (Móka).—This region is also inhabited. The people are called Wa-Mawka. They cultivate the soil, and also possess cattle, but not many. They are considered as the subject of the Wa-Káverond and Wa-Nándi—their neighbours—a few hours to the north and south. [7 hours.]

To *Nándi*.—"Nandi" is also known by another name, that of *Ndéi Ngwáille*. [6 hours.]

To *Baráni* (camp). [5 hours.]

To *Gwáso Ngíshu*.—This name is Kikwávi, and means "*Cattle River*" ("Gwaso," River; and "Ngíshu," cattle). At this place

there are Wakwávi villages, but they are not permanent settlements. [7 hours.]

To *Base of Nandi Mountain*.—Here is a mountain, large and wooded. It is called the *Nandi Mountain*. The Wa-Nandi (people of the district) live on the summit which they cultivate. They are also extensive cattle-owners, and, like the Wa-Lumbwa, secure their cattle at night in houses, as they fear the Masái and Wakwávi. On account of their fear of these wandering and insatiable robbers, their cattle are not taken to the pasturage until the sun is high in the heavens—about 10 A.M.—and they are brought back about 3 in the afternoon. Other prudent and cautionary measures are also adopted to protect and secure their coveted property. Outposts and scouts are daily sent to watch—a goodly distance off—in various directions, against a surprise, whilst the herdsmen attend to pasturing the cattle. The duty of scouting, or keeping watch, is performed alternately, and is daily changed. Thus, one day they are farming, and the next standing sentry!—an irksome necessity, arising from human cupidity!—the violent greed and covetousness of savages! [6 hours.]

To *Chamwáli*.—This region is very populous. The inhabitants are called Wa-Chamwáli. They cultivate the ground—growing millet, beans, bananas (the latter in large quantities), “wítube” (a seed-bearing plant), &c. They have much cattle also. [4 hours.]

To *Kaverénd*. [6 hours.]

To *Baharini*.—“Baharini” is Kisáwahíli, and means *at the sea*. This is the terminus of Sádi’s long journey from T’anga to the *Lake Nyánza*, which is so immense as to have led the natives (at least of the seaboard) to conceive of it as an *inland* “SEA!” [4 hours.]

LAKE NYANZA.

Sádi calls it “*Nyánja*,” and is unacquainted with the above form. The first name he gave me was “bahari,” sea; and “*Báhári ya Ukára*,” the Sea of Ukara, Ukára being the name of the region on the eastern shore of the lake where the above route immediately terminated. The people of this region are also called *Wa-Ukára*. Sádi states that the lake is often designated “*Báhári ya Píli*,” the *Second Sea*. This latter expression I have frequently heard, but, at the time, thought it had reference to the Atlantic Ocean; and, when wishing myself to speak of the North Atlantic, I have used the above expression, “*the second Sea*,” thinking that they have heard of it. The term, however, refers to the *Lake*.

On asking Sádi why it was called a "Sea," he replied, was it not *like* a sea in its immensity? I asked him if it were a lake. He said he could not tell; but gave it as his opinion that it might, possibly (from its extraordinary length), be a huge river; "for," he remarked, "I have travelled sixty days (marches?) along the shore without perceiving any signs of its termination." Neither had the natives with whom he had conversed been able to give him any information about its northern or southern limit.

With regard to the *width* of the lake, Sádi was informed that it required six full days—from sunrise to sunset—to cross it in canoes, but that, if the men went right on, *day and night*, the journey was accomplished in *three* days.

Standing on the eastern shore, Sádi said he could descry nothing of land in a western direction, except the very faint outline of the summit of a mountain, far, far away, on the horizon.

Sádi states that the lake has a daily *tide*, and that its ebb and flow are as regular as that of the sea on the coast. That drifted foam, and other light matters, remain in lines upon the shore after the recession of the tidal waves. (Other natives, too, I believe, have made this statement.) The lake, says Sádi, has also its "mawimbi" (waves), but they are not very considerable. The water of the lake is *fresh* and sweet.

The eastern side of the lake, as far as Sádi's experience goes, is not mountainous, but rather level, and the shore sandy. There are a few detached mountains, as indicated on the map, but nothing more. From Ngóroinne to Ukára there are small, inconsiderable hills ("vilima vidógo 'dógo"). There is a small *bay*, or bend in the shore, extending from Káverónd to Chamwáli.

With regard to the eastern shore, Sádi's bearings of his journey northward to Lake Baringo, cause the Nyánza to deflect north-westerly. He could not see the lake from any point of the journey; but from the summit of the Ligéyo Mountain it is clearly seen, appearing a long distance off, about two days' journey.

About eight or nine years ago, Sádi, arriving at the Nyanza, and observing a deep trench or channel on the shore, inquired what it meant, when the natives replied that a *large vessel* had recently been on the lake, and had anchored at that spot. The vessel has three masts, and another in the front (bowsprit?). The vessel had on it "ngúo nyingi, neópè" (many white cloths) (sails). The visitors were described as "waópè sána," *very white*; they bought large quantities of eggs. They also purchased some *ivories*, but only *short* ones; *long tusks* they refused. Sádi thinks that it was about a month and a half after the departure of the visitors that he arrived at the lake.

THE WA-UKÁRA ;

(*People of the Ukára region, Lake Nyónza.*)

Sádi describes them as a people most scrupulously clean in their habits. He was particularly struck with this feature of their character, and on several occasions referred to it. If they have been working in their plantations, they are particular, afterwards, in washing themselves and their clothes. They also keep their cooking-vessels and other utensils very clean. They are of average height. They cultivate the ground, growing maize, but not much ; beans (of different kinds), millet, bananas, cassada, and sweet potatoes. Their agricultural implements are large iron hoes. The children use wooden ones. They also frequently employ themselves in fishing. With regard to their weapons, some carry bows and arrows ; others, discarding the bow, are armed with spears, and carry large shields, like those of the Masái. Sádi says they are a peaceable people. Their clothing (like that of many of the interior tribes) is made of skins—goat-skins, sheep-skins, and those of wild animals taken in the chase. The apparel of the women are short kilts (of skin), which are anything but adequate to a decent appearance. The Ukára women present even a more nude appearance than those of the Wanyíka. The men do not wear ornaments, but the women wear a few, which are imported from the coast. The houses of these people are circular. The walls—which are high—are plastered inside and out with clay, surmounted with a conical roof, thatched with grass ; resembling the huts of the Wa-Teita, and those represented in Captain Burton's book on the 'Lake Regions,' as built by the Wanyamwezi. With regard to language, the few specimens given below—which Sádi gave as the Ngóroinne dialect—show that the Wa-Ukára are of the pure African stock, *i. e.* as far as the affinity of language indicates it.

English.	Ki-Ukára (Ngóroinne dialect)	Kikámba.	Ki-Teita.	Kinyika (Kibé).	Ki-Sáwabili (Mombáse).
Water	máisi.	mánzi.	máchi.	mázi.	máji.
Goat	mbúri.	mbúí.	mbúri.	mbúzi.	mbúzi.
Sheep	chigóndúu.	ilóndu.	gnóndi.	gnóndi.	kóndó.
Tree	múti.	múti.	múdi.	móti.	rúti.
House	chinyumba.	nyúmha.	nyumba.	nyumba.	nyumba.
Fowl	obingúku.	ngúku.	ngúku.	kuku.	kíku.
Hen (<i>female fowl</i>)	chingúku mka.	..	..	..	..
Cock	{ chingúku murúmé } { (<i>lit. male fowl</i>).	ndzólóó.	jogólo.	dzogólo.	jogó ; jínbi.
Cattle	gnómbé.	gnómbé.	gnómbé.	gnómbé.	gnómbé.
Dog	chítte.	jíte.	kóshi.	káro.	jítwa ; mbwá.
Fish	chíswi.	ikíyú.	ngútúma.	swi.	samáki.
	{ munda ;	múndu ;	múndu ;	mútu ;	tútu ;
	<i>pl. wáudu.</i>	<i>pl. ándu.</i>	<i>pl. wáudu.</i>	<i>pl. átu.</i>	<i>pl. wátu.</i>
Woman	múúmka.	múnda múka.	múnda múka.	mútu múché.	mtúmké.
Child	chínwána.	kána.	mwána.	mwána.	mwána.
Grass	nyáki.	nyíki.	nyási.	nyási.	nyási.
Hoe	ligémbé.	ye émbé.	igémbé.	jeúmbé.	jeúmbé.

Sádi states that the Wá-Ukára are very numerous, and many of their settlements are large towns, containing about a thousand huts each. That they are about equal in size to the town of Mombása. This estimate, I imagine, is somewhat exaggerated.

The country (Ukára) is dotted with small hills, but the shore of the lake is level. The hills are not so large as those in Wanyika-land.

NO. 2. RETURN ROUTE

From Ukára (Nyánza) to Arúsha.

Báhari ya Ukára to Ngoroinne. The meaning of the word Ukára, Sádi is unacquainted with. Ngoroinne is Kikwávi. There are villages at Ngoroinne, and the inhabitants have cattle and plantations. [12 hours.]

To *Séro.* [10 hours.]

To *Kiváwái.* [12 hours.]

To *Ndá Sekéra.* [9 hours.] These are Kikwávi names, Sekéra meaning *Cowries.*

To *Sónjo.*—The name Sónjo is Kikwávi, and means “fiwi” (Kisáwahili), a large species of bean. The Wakwávi sometimes buy beans (fiwi), from the Wa-Sónjo. [4 hours.]

The settlements which are here are permanent. The Wa-Sónjo cultivate the soil and keep cattle. The place is populous. Sádi says that the Wa-Sónjo are Wasegéju *immigrants, who left Shungwaya and came to this region, in which they have settled. (Shungwaya is a district between Goddóma and Kaúma (Wanyika-land); and Sádi states that it was the original home of all the Wasegéju.) To the south-east is the Sónjo Mountain. It is large, but not so large as Nándi Mtu. It is wooded from base to summit. To the south-west is the Kura Mtu, about as large as that of Sónjo.

To *Malámbo.*—Here are settled villages of the Wa-Malámbo, who, Sádi says are Masái, but “meskini” (poor). They have no cattle, but have plenty of goats. They also cultivate the soil. [3 hours.]

To *Sálè.*—Masái live at Sálè, and Sádi says that this region is the Ma-ái country proper, “n’ti yáó *Rábisa.*” South-east of Sálè, is the mountain *Ngári.* [5 hours.]

To *Kíti.*—The name is Ki-Masái, “Kíti”¹ meaning *little.* The mountain is lofty, but not very bulky. There is a luxuriant forest on its slope and summit; Wa-Ngúrúmání (some call them Wa-Utíni, and others, Wa-Baghási, but Sádi says the

* Wasegedshu, History of the. See Krapf, in ‘Church Miss. Intelligencer,’ of 1849, p. 86.

first is the proper name) live on the top. There is water on the summit (a spring), which is perennial. The people cultivate the ground, and make trenches or channels, by which water is conducted in various directions to the plantations.

South of Ngári Kiti is the Mountain *Dóényo Sámbo* ("Sambu" is "Sahári" in Kisáwahili, a kind of cloth worn in Eastern Africa.) This mountain is very lofty, not inhabited. Sádi says that it is as high as Kilima Njaro. There is a forest on it; also rock on the base and summit. It stands about half an hour from their camping place at Ngúrúmani.

To *Másimáni*.—This word is Kisáwahili, and means "at the wells." (The *diminutive* form is generally used—namely, *Visimáni*, sing. *Risimáni*.) [6 hours from Sálè.]

To *Giléi*.—Here is a very large mountain called *Giléi*. Masái live on the summit, where there is plenty of room for the pasturing of their cattle. Sádi's caravan encamped on the top, as there was no water at the base; but the ascent *tired* them. The summit is wooded, but the slope only covered with grass. [9 hours.]

To *Gwasó na Ebór*.—(Gwaso na Ebór, means, literally, *white river*.) This is a region of *white sand*. Sádi says it sparkles (quartz?). There are Masái here. Six hours to the north of Gwasó na Ebór is a mountain, called *Méto* by the Masái, and *Malumbáto* by the Wa-Sáwahili. It is large, wooded on the top, with grassy slopes. [6 hours.]

To *N'daptúk*.—Masái live here permanently. They never migrate from N'daptúk. There is a mountain here, called by the name of the locality. It is dotted with patches of jungle. Masái live on the top and at the base; the slopes are also encircled with settlements. [12 hours.]

To *Ngárè na Nyúki*, (ngáre, water; nyuki, red—red water).—The name is Ki-Masái. Here is a small stream, the surface of which is covered with a red dust. The *bed* of the stream is also formed of red mud. It is not deep. A man's arm easily reaches the bottom, and the least disturbance of the bed renders the water at that place a red mass. Though the stream is shallow, it never dries up. It comes from Kópia Ekópi. [12 hours.]

To *Njárè na Eróbi*.—Ngárè na Eróbi, is Ki-Masái, and means *cold water*. There is a small stream here, the water of which is so intensely cold as to be unbearable. Sádi says if a man puts his foot into it, it makes the very bones ache! The whole country here, too (*i. e.* the ground), is so cold as to make the travellers put on shoes (sandals), if they commence the march in the morning. The cold, he says, comes from *Kilima Njaro*. This, and about fifty or sixty other streams, flow westward from

Kilima Njaro. Since writing the above, Sádi says there are more than sixty; some wander northward, and others southward, and others, again, easterly. [6 hours.]

To *Kirarágwa.* [3 hours.]

To *Sígirári.*—At *Sígirári* there are Masái villages, but not permanent. However, if the inhabitants migrate, they only remove to *Kiraragwa.* In course of time they remove again to *Sígirári*; spending their time between these two regions. Occasionally changing, no doubt, for the sake of pasture. [10 hours.]

To *Mibuyúni.* This name is Ki-Sáwahílí, being the plural of *Mbúyu*—the Baobab-tree. This region abounds with the Baobab (*Adansonia*). [9 hours.]

To *Márágo ya T'émbó.*—This term is Ki-Mríma. *Márágo* means camping-place; and *Tembo*, elephant. [8 hours.]

To *Arúsha.*—This is the end of the down-march, as Sádi falls into his old path at Arusha (see page 304). [5 hours.]

NO. 3. FROM MOMBÁSA TO DHAICHO.

To *Kimri.* (6 hours.)

To *Shimba.* *Shimba* is a long mountain, probably about 2000 feet high, which is occupied by various tribes of *Wadígo* and other *Wanyíka* tribes. [6 hours.]

To *Mazóla.* There are two meanings to the word *zola* (which is *Kidígo*)—1. *ku zóla ni ku fukuza*, to expel or drive away; 2. *ku zóla mairo*, to run quickly. [9 hours.]

To *Gúrungáni.*—*Gúrunga* means, in *Kisáwahílí*, holes or pits in stones. N.N.W. of camp, at *Gúrungáni* is *Kilibássi*; at *Ngururungáni za Kilibássi* (*vizima via máwe*, stone wells), there is always water. This locality is a camping-place for all caravans, on account of the perennial supply of water. The hill *Ukinga* is not so large as *Kilibássi*. [9 hours.]

To *Kisigáu* or *Kisígáu.*—*Kisigáu* is the *Sáwahílí* name for *Kádhíaro*. The latter is a local name, and Sádi says is unknown to many *Sáwahílí*s. [12 hours.]

To *Matátè.*—There is a hill at *Matátè* southward of the camp. A small stream also, about $1\frac{1}{2}$ yard wide, comes from *Teita*. [9 hours.]

To *Búra Mountain.*—*Búra* is a large spreading hill. *Wa-Teita* inhabit the top, and cultivate the ground. *Búra*, Sádi says, is a *Kidígo* word (probably also *Ki Teita*), and means a fen or marsh, where water lies concealed amongst the sedge, and must be turned aside before the water can be discovered. There is such a marsh at the base of the *Búra Mountain*. [6 hours.]

To *Baráni* (Camp). [12 hours.]

To *Lanjóra*.—*Lanjóra* is a Kikwávi name. *Wakwávi* formerly lived here, but were driven away by the Masái. The remains of their villages are to be seen to this day. [6 hours.]

To *Tavéta*.—The latter is a Sávahili corruption of a Kwávi word, which is *Ndovéta*. [4 hours.]

To *Uséri*.—This word is thus called by the Wasávahili. By the *Wakwávi* it is called *M'su Géri*. Between *Useri* and the next stage (*Kimangéla*), the caravan crossed the River *Tsávo*. At this place it is only two or three yards wide. In the hot season the water merely covers the ankle. In the rainy season the river is not fordable. The caravan drivers fell a couple of trees, one on each side of the river, causing them to fall across the stream, thus constructing a bridge, by which the long line of travellers pass over. [12 hours.]

To *Kimangéla*.—*Sádi* says this is a *Chága* word, and that the *Wakwávi* call it *Kimangéla*. A little to the south of the next stage, the caravan crossed the *Sabáki* River, or, rather its bed, as, being the hot season, it was quite dry. Though they dug for water they failed to get any. In the rainy season the river is not fordable; but the water remains no great length of time. In a few days it is dry again. [5 hours.]

To *Léta Kotók*.—*Sádi* says this latter name means spring or fountain. The word *Kotók* being used to express the action of bubbling. There is a spring at this place. [12 hours.]

There is also a large lake at *Léta Kotók*—length, from station at *Ribe* to *Makerúnge*, or *Ngú Hills* (6 or 8 miles). Breadth, about a mile. It abounds with reeds and grass. There are about half a dozen small islands on it.

To *Baráni* (Camp). [6 hours.]

To *Mábarásha*.—This latter word is *Ki-masái*. There is a mountain called *Mábarásha*, about a quarter of an hour to the north of the camp, not very large. [6 hours.]

To *Ulasindío*.—This word was the name of a Kwávi chieftain, who formerly lived here. This region is called by the *Wakwávi*, *Lóbrabrána*. [6 hours.]

To *Lamwéa*.—*Lamwéa* was the name of a Kwávi chieftain, who gathered his followers about him, and determined not to leave the above region; but to live and die there. He did so. His followers, since the death of their chief, have long since migrated. [12 hours.]

Here is a large mountain called *Lamwéa*. On the northern slope is a jungle of *Múrijón* trees. *Masái* live on the sides, but not on the summit. It is less than an hour from the camp, bearing north-easterly.

To *Múrijón*.—*Múrijón* is the name of a tree very much

resembling, Sádi says, in appearance the clove-tree. It yields the poison used by the Wandoróbo for their arrows. The Wandoróbo women cook and prepare this poison for the men. [6 hours.]

To *Kápté*. [4½ hours.]

To *Mivirúni*.—Mvíru (pl. Mivíru) is the Ki-Sáwabili and Ki-Nyika name of a large wild fruit tree. The fruit is about the size of very small apples, and, when ripe, of a russet or brownish colour, consisting of a thin rind, which is filled with fruit of a globular form, pressed together, and about the size of marbles. [12 hours.]

To *Mianzíni*.—Mianzíni is Ki-Sáwabili; Mianzi meaning bamboos or large reeds. At this place there are villages of the Wandoróbo. Here (a little below Mianzíni) the River Tána is crossed; which, Sádi says, passes mid-way through (“wa pasúa”) *Kikúyu*; and that its source is the Máu country. A number of tributaries enter the Tána in the interior, four from Dhaicho, and seven from Kikúyu. There are large numbers of crocodiles and hippopotami in the river. [12 hours.]

To *Náivásha*.—At Náivásha there is a large lake—length, from Jibána to Mombása (18 miles); breadth, from Ribe Station to Mombása (13 miles). Bearing N.N.E. and S.S.W. Large numbers of hippopotami in it. The water on the north-eastern side is fresh, whilst that on the opposite shore (north-western) is salt. The water at the southern end is also salt. [12 hours.]

To *Vibokóni*.—Vibokóni is Ki-Sawahili, and signifies the “habitat of hippopotami.” [9 hours.]

To *Agnáta Vús*.—Agnáta Vús is a Kikwávi name: *Agnáta*, “country,” or “wilderness;” and *Vús*, “mist,” or “fog.” This is an excessively cold region, and is frequently buried in the thick fog which descends from the Settíma Mountain; it is so dense that a porter cannot see his fellow who is just before him. Sádi says that the men link themselves together with their cloths, to enable them to keep in the path. This foggy mass continues until about 10 o’clock A.M., when it begins to evaporate. This region is also a swamp, but underneath is a formation of rock. [6 hours.]

To *Settíma*.—Here is a large mountain, called *Settíma*. Sádi, speaking of it, says “it is a *Líma*,” a term denoting extraordinary size—*mlíma* being the general term for mountain. Wakwávi make the summit a temporary dwelling-place. It is clothed with grass, and is wooded on the eastern side. The caravan slept on the top. If porters are tired, it is customary to camp for the night at the base, and the following morning to ascend it; but if not over-tired, they climb it, and camp on the summit. [5½ hours.]

Three streamlets issue from this mountain, and, flowing south-easterly, ultimately coalesce and flow on in a single stream, called Ná-Erogwa, to the reedy fen or marsh near Mianzini: "mianzi" meaning bamboos, which are here very numerous and as thick as a man's leg.

To *Agnāta Ndārè*.—This name, Sádi says, means goat pasturage: Ndārè meaning a herd of goats, and Agnata (báva, wilderness), as before remarked. [6 hours.]

To *Ndóro*. [9 hours.]

To *Dóényo Ebór*.—This name means "White Mountain." Sádi says it is very lofty, and the summit exceedingly white. He considers one day to be sufficient to go round it. It stands about an hour from where they encamped. Sádi states that the country at the base is called Vórè. The above *Dóényo Ebór* is the "*Kenia*" in Dr. Krapf's map.* [9 hours.]

To *Barani* (camp). [9 hours.]

To *Msarára*.—Here is a large mountain, but less than *Dóényo Ebór*; about one hour to the east of camp. The summit is inhabited by people called by the Wakwávi "Liméro;" by the Wa-Sawahili "Wa-Limero" and "Wa-Méru;" and by the Wakámba "Embu." They are agriculturists. Lambúí, one of their chiefs, lives here. The whole country, from *Dóényo Ebór* to Dhaicho is called Liméro by the Wakwávi, but Méru by the Wa-Sawahili. To the north of *Msarára*, Sádi crossed the *Ozi River*, called by the Wakwávi and Masái, Gwaso (river) *Limbárua* (or *Limbáruwa*). This word is the name of a tree in the interior and near the coast; it is called *Limbáruwa* by the Wakwávi, and *Mwáte* by the Wa-Sawahili. At the place where Sádi crossed the river it was about 5 or 6 yards wide. Here is a broad and permanent bridge, which has been constructed by the Wakwávi, of trees, over which their cattle may cross. *Wakwávi* live on both banks. [6 hours.]

At other points the *Ozi River* is very wide—a hundred yards or more—receiving influents from both north and south, Dhaicho and Méru. The current, also, is strong; and, says Sádi, "were it not for the 'fungu' (sandbanks), which God has put into it, it would be utterly impassable."

To *Gwáso Nyíro*.—*Gwáso* (river), *Nyuro* (grey): Grey River it is called, on account of the river, at this place, being covered with a layer of *grey dust*. The *Nyíro* is a considerable river, and is perennial. Its lowest depth, *i. e.* in the hot season, reaches up to the knees. It flows from the *Njémsi Mountain*, and turns off northerly near the camping-place, and goes to

* *Vide* 'Travels,' &c., by Dr. Krapf, p. 360. "Oredoinio-ehor (White Mountain, Snow Mountain, the Kenia of the Wakamba)."

Sambúru. There is also another stream of this name which rises in the Máu country, and thence flowing south loses itself in the nitre swamp near Ngúrúmani. To distinguish it from the above river, it is called "*Gwáso Nyíro*" ya Ngúrúmani. [12 hours.]

To *Lórián*. [8 hours.]

To *Dhaicho*.—Dhaicho is a long spreading hill, about as high as Búra (Teita), three or four days long and about one and a half broad (length, from station at Ríbè to Wasin, 55 miles); bearing north-east and south-west, the northern part of the chain veering round again to the westward. [6 hours.]

THE WA-DHAICHO.

Inhabitants of the Dhaicho Hills are agriculturists. Mtama, mawéli, kimánga, ndíze, mbázi, muhógo, viázi, víkwa (like yams), míwa, fiwi, and mahúndi (*i. e.* banana, cassada, sweet potatoes, sugar-cane, beans, &c.), are amongst the things they cultivate; they have also cattle, goats, and fine sheep. They tenaciously cling to their house in the highlands, not daring to live in the plains below from fear of the Wakwávi. However they frequently come in contact with them. During the hot season, when the Wakwávi are in the habit of visiting those regions, the Dhaicho women descend from the hills, and carry to them fruit and vegetables for sale, or rather barter, obtaining from these nomadic pastorals flesh-meat in return. The fierce warrior, whose life is one constant foray on the flocks and herds of other tribes, can easily afford to pay. On such occasions the women are not molested, but allowed to return. The Wakwávi also visit the Dhaicho people on the hills. On asking Sádi whether the Wakwávi do not kill or fight with the Dhaicho, he replied that, on their arrival, they propound terms of "peace and goodwill," and keep their word until just before they are ready to leave the country, when they attack them, plunder them of their cattle, and carry off captives. On the second visit they again propound peace and friendly relations, and keep their vows until the time of departure, when they again violate their covenant and display the "ruling passion" of their savage natures—a thirst for feud and plunder.

Sádi says, that now the Wakwávi and the Dhaicho people are not on friendly terms. The Wa-Dhaicho are respectable warriors, and are able to engage with the Wakwávi; but they are a peaceable people, nevertheless.

Their weapons: some carry bows and arrows, and others prefer the spear and shield. Their houses are circular, like those of the Ukára (Nyánza) people, but very large. With

regard to their clothing, both men and women wear skins: the men short kilts, the women longer ones, and also a large skin to throw over the shoulders. There is some calico amongst them, which they have imported from the coast.

Ornaments: the men wear a little thick iron wire on the arms. The women wear iron wire round the neck and arms and legs. They also wear long ear-rings of thin brass wire. With regard to language, the following brief list of words, when compared with that given under the heading *Wa-Ukara*, will show that the Dhaicho people are genuine members of the African family:—

English.	Ki-Dhaicho.	English.	Ki-Dhaicho.
Water	ngàrè (kikwávi).	Dog	kitte.
Goat	búri.	Fish	ngulúma.
Sheep	nòndu.	Man	múndu; pl. wándu.
Tree	nti.	Woman	múndu múka.
House	mjumba.	Child	chímwána.
Powl	(no fowls).	Grass	nyági.
Cattle	gnómbe.	Hoe	ligémbe.

NO. 4. FROM SIGIRÁRI TO SAMBÚRU.

Sigirári to Kírarágua.—(Both these names are Kikwávi.) [12 hours.]

To *Ngàrè Na Eróbi.*—The meaning of this latter name in Kikwávi or Ki-Masái is *cold water*. There is water at this place, which, according to Sádi, fully justifies its name. It is so intensely cold that, if the natives drink it, they “endeavour to swallow it without it *touching their teeth*.” [3 hours, see p. 313.]

To *Kópia Ekópi.*—This name is *old Kikwávi*, but Sádi does not know its meaning. [7 hours.]

To *Dóényo Erók.*—This name is Ki-Masái, and means *black mountain*. The *Dóényo Erok* is very large. Like the *Dóényo Ngái*, it is higher than the *Kilima Njáro*, though not so massive. *Wándoróbo* (not many) live constantly on the sides of this mountain, whilst there are some of those wild hunters on the summit itself. Elephants ascend this mountain, which is encircled with forests from base to summit, in which are large trees. The elephants frequent these woods for the sake of their abundant herbage. In bulk it is about the same as the *Ngái* mountain, but the former goes somewhat higher. Sádi says the *Dóényo Erók* is “*meúsi sána sána!*” (exceedingly *black*). [8 hours.]

To *Ngàrè Rongéi.*—*Rongéi* is Ki-Masái, and means *narrow*. *Ngàrè* means *water*. There is a very small streamlet here, or

rill, about 5 or 6 inches * broad, but it never dries up. It comes from Chága, from the Kilima-njaro. [9 hours.]

To *Migungáni*.—This latter word is Kisáwalíí, and is the plural of *ingúnga*, a very large tree, producing immense thorns, 7 or 8 inches long. Elephants are fond of the succulent parts of this tree. [8 hours.]

To *Doënyo Lamwéa*.—A Kwávi chieftain formerly lived here, whose name was Lamwea, after whom, no doubt, the region was called. The Doënyo Lamwea is a considerable mountain, as large as Nándi. It has rather a bare aspect—no wood upon it, except on the north side, at the base, where there is a wood or jungle of the murijon-tree. There are rocks on the top. [10 hours.]

To *Mtángóni*.—Mtángo is a Kisáwalíí word, and means a desert—a dry waste, where no water whatever is to be obtained. The Masái and Wakwávi call this place *Garómi*. [12 hours.]

To *Mivirúni*.—Mivíru are a species of wild fruit-tree; *vide* *Mivirúni en route to Dhaicho*. [10 hours.]

To *M'to wa Gógnu Baghásè*.—M'to wa Gógnu Baghásè, River Gógnu Baghásè (Kikwávi). Here is a small streamlet, about a yard wide, which never dries, coming from a mountain in Kúkúyu. [6 hours.]

To *Návasha*.—This word is Kikwávi, and Sádi says it means *salt water*. [12 hours, *see routes 1 and 3*.]

To *Mto wa Ngàrè Motónyi*.—River Motónyi. Motónyi is the name of a species of bird, which make this region its habitat. The motónyi are numerous here. The "M'to" is a stream, about two yards wide, perennial, and comes from a district called Döndölè, † near the Njámsi Mountain. This region is permanently inhabited by Wándoróbo; they never leave it (*háwa tóki hápa Rabisa*). [7 hours.]

To *M'to wa Agnata Vús*.—River Agnata Vús is perennial. It is only a stream, about a yard and half wide, and comes from the Séttima Mountain. [6 hours, *see Route 3*.]

To *Mlíma wa Séttima*.—A lofty mountain, a little to north of camp. After sleeping at base, the caravan climbed it the next morning, and afterwards descended the northern side. The eastern side is wooded; the other parts clothed well with grass. Wakwávi live on its sides and also at the base. In the hot season those living at the base ascend the mountain in search of pasture, and also on account of its cool temperature. The grass remains constantly fresh. [4 hours.]

To *Súbúgo Límárimárè*.—Here are *masima* (wells or pits), which have been dug by the Wakwávi to give drink to their cattle. [9 hours.]

* ? feet.

† Döndölè is a Kúndoróbo word.

To *M'to Migungáni*.—River Migungáni (Kisáwahílí), from mgúnga, a large tree, bearing immense thorns. The Migungáni stream is about two yards wide, and reached to the loins. It never becomes quite dry. Water is left in places where the bed is deep. Flows out of the River Nyíro, near Suvúcha, and afterwards enters the Ozi. [5 hours.]

To *Suvúcha*. [6 hours.]

To *Másimá míkómáni*.—This name is Kisáwahílí, meaning the wells or pits at the Mikoma—a species of fan-palm. [7 hours.]

To *Mkwájuni*.—Mkwáju is Kisáwahílí, meaning tamarind. [10 hours.]

To *Mvóngonyáni*.—Mvongoènyáni (Kisáwahílí), is a large tree, bearing long immense pods (calabash or monkey-bread tree). [9 hours.]

To *Ngàrè Ndogéi*.—This name is Kikwávi; Ndogei, meaning the brab-tree, and Ngàrè, water. There is a stream at this place, about four yards wide, and the Ndogei (brab) is growing on its banks. Sádi says it comes from Lórián, and that hippopotami and crocodiles are very numerous in it. [8 hours.]

To *M'swakíni*.—Mswakini is Kisáwahílí, meaning the tree from which Wa-Sáwahílís and others cut their tooth-sticks. [5 hours.]

To *Jiwéni*.—Jiwéni (Kisáwahílí) means at the *stone*. Here is a small hill, on the top of which was a piece of rock, which, becoming split, half of it rolled down the slope of the hill to a distance of about a mile. Hence Jiwéni. [8 hours.]

To *Kitóni*.—This is a place of mud and puddles. With regard to the meaning of the word “kito,” Sádi says it is used to express the bubbling sound made at the escape of air when releasing the foot from a hole into which it has sunk. Possibly the word is Ki-Mríma. [9 hours.]

To *Márágo Khálfán*.—The word “marágo,” thus accented, when *alone*, but on the ante-penultimate, when in combination, as above, is Ki-Mríma, and means camping-place. Khálfán is the name of an Arab, who was once taken very ill at this place, and has ever since been identified with that event. [6 hours.]

To *Kitwa cha Ndóvu*.—This name, *The Elephant's Head*, is Kisáwahílí, and is thus called on account of the skull of an elephant being at this place. The tusks have, of course, long since been carried away. [9 hours.]

To *Tímbo la míma*.—Literally, the *belly of the mountain*, meaning its slope, or bulging part. [5 hours.]

To *Zíwa la Mbu*.—Mosquito Lake or Marsh (Kisáwahílí). The water reaches to the loins. [7 hours.]

To *Márágo ya Fáu*.—“Fáu” is Ki-Mríma, and means rhinoceros. Many rhinoceroses here. [5 hours.]

To *Ngulúwo Likária*.—This name is Kikwávi, and means red ochre or ruddle, which the Wakwávi mix with oil or grease (from the coast), and smear their heads, breasts, and arms with it. [6 hours.]

To *Mlíma wa Sambúru* (Sambúru Mountain).—Sádi says it presents a very forbidding aspect, cliffs stretching out, "arms" (horns) in all directions on the summit. It is very large, lofty, and massive. Uninhabitable. [9 hours.]

To *Bolyói*.—Bolyói is Kikwávi. Sádi says the Wakwávi dig large holes to obtain a species of soil, which *fattens* their cattle. The cattle know its purpose and voluntarily eat it. This soil, as well as the pit or excavations thus made, are called bolyói. [7 hours.]

To *Southern Sambúru*.—This is the *limit* of Sádi's journey from Sigirari. He did not really enter Sambúru, but only reached its southern frontier. He states that he saw the northern* end of the Sambúru Lake, which appeared about two days' off, and describes it as being—length, from station at Ribe to Kipúmbui (128 miles); breadth, from Ribe to Gasi (37 miles); bearing, N.N.E., S.S.W.

WA-SAMBÚRU.

(*People of Sambúru.*)

The Sambúru people are subject to the Somalis, as the Wándoróbo are to the Masái. They are pastoral, and have much cattle. They do not cultivate the ground. Like the Gallas and Masái, they do not eat fish; consequently, their large and beautiful lake is lost upon them with regard to angling purposes. They have numerous horses and camels. They are hunters, and are said to hunt on horseback in a very singular manner; they tie a lot of spears together in two bundles, which they place one on each side of the horse. When approaching a place of game, they endeavour to conceal themselves by clasping the horse round the neck, with their heads underneath, and their feet resting in loops made for the purpose, which hang over the flanks of the horse. The horses are trained to go slowly towards the place of prey, and when near, the hunters very slowly turn themselves, until they have got on their horses' backs, when they give forth their shrill hunting-cry, and pursue the game until they come up to them, when they use their spears with great effect. The people of Bráva go to Sambúru for trading purposes, but the Sambúrus do not go to the coast.

The Wa-Sambúru speak a dialect of Kikwávi; but though

* ? Southern end.

probably they and the Wakwávi have a common origin, they are by no means friendly, but fight whenever circumstances throw them together. They carry spear and shield, but no "símè" (native sword). They have, also, bows and arrows—the latter lubricated with a virulent poison, very strong. Those who do not carry spears have bows and arrows. The Wakwávi only carry spears, shield, and símè.

NO. 5.—FROM LAKE NYANZA TO LAKE BARINGO.

We commence this route from *Gwáso Ngishu*, to prevent the repetition of intermediate stages along the shore of Lake Nyanza. (See p. 308.)

To *Baráni* (Camp). [6 hours.]

To *Lígéyo*.—At this place is a *mountain* of the above name. It is not very lofty, but spreads out (nearly due north and south) for about two days' journey; also, about one and a quarter day broad. There is a little jungle about it, but not much. Pretty well clothed with grass. People called *Wa-Ligeyo* live on the top, where they also pasture their cattle; never coming down from the mountain, as they greatly fear their near neighbours—the *Wakwávi* of *Gwáso Ngishu*. The summit is *very populous*—"nté nzíma" (a whole country). The inhabitants have plenty of cattle, and also cultivate the ground. [8 hours.]

To *Mwisho wa Mlína*.—*End of mountain* (Kisáwahílí), evidently no name for the locality. [9 hours.]

To *Dóényo Ebór*.—*Kikwávi* name, meaning *white mountain*. Sádi says it is but a hill, and not large. It has a *small white crown*—hence its name. [12 hours.]

To *Másimáni*.—At the *wells or pits* (Kisáwahílí). [9 hours.]

To *Mlánganyíko*.—Kisáwahílí, meaning the place of *mingling or mixture* (rendezvous). Being a damp, (*rútuba*) region, it affords pasturage for cattle during the hot season, yielding abundance of grass when it is scorched and withered elsewhere. *Wakwávi* of different tribes meet here to pasture their cattle, periodically, making the place quite a rendezvous. When the herds have cropped the grass the men again separate, returning in various directions to their homes. [12 hours.]

To *Agnata Láegób*. [8 hours.]

To *Lóbrubrána*. [10 hours.]

To *Lake Baringo*.—When the caravan reached this point, they commenced to return, but by a different route from the one marked out above, fearing to go further northwards, as they were already very near the *Wa-Súku*, a fierce race, and much dreaded by the *Wasáwhílí*. [9 hours.]

LAKE BARINGO.

Length, from station at Ribe to Kipumbui (128 miles); breadth, from the same to Wasin (56 miles); bearing: nearly north and south, but a little north-westerly and south-easterly. Sádi was told by the natives dwelling in the vicinity of the lake, that the meaning of the word "Baringo" is *canoe*, possibly so called from its form resembling that of a canoe. There is an island—a small conical hill probably about a hundred feet high—in the lake, situated near the south end, and not far from the eastern shore. The slopes are clothed with vegetation, and the base is a circle of light-coloured sand (not so light as beach-coloured sand). Sádi says the island—which has no name, as far as he knows—is about as large as that of Mombása, and that it is appropriated as an asylum by the Njémsi people (*vide* below), who flee thither with their cattle from the marauding Wakwávi. It has a large village, containing about 120 huts, but closely packed. The water is shallow between the island and at the shores, reaching only up to the loins. He states that some of the Njémsis have taken up their permanent abode on the island, where they graze their cattle and cultivate the soil.

There are two rivers, both effluents of the Baringo. Whether the northern is an effluent or not Sádi does not positively know, but gave it as his opinion that it is so. (The reason that so little is known of this river is on account of its flowing through the country of the savage Wa-Súku, of whom all parties seem to have a lively dread). One flows out of the lake at its northern end, and takes a north-westerly course, and the other flows out of the south end, continuing its course almost due south. Sádi calls them both by one name, that of *Nyarús*; but the southern one is frequently called by the Sáwahílis who have travelled in that region the *Jémsi* river, its source, and also course, for some distance, being in the Jémsi (or Njémsi) country. Sádi appears to know little of the northern stream, but conjectures that it enters the Nyanza lake to the northwards. Ulédi, one of our servants, who has been to the Baringo, says that he was informed that it was a considerable river, about 30 yards wide. The southern stream is narrower than the above, Ulédi says about 7 or 8 yards, and that it took them up to their necks when crossing it. This was in the hot season. He says, also, that a rivulet issues out of, or enters the lake (which, he cannot tell) directly opposite the island, on the eastern shore. He spoke of it as issuing from the lake, and then flowing south-easterly until lost amongst a group of lofty hills (higher than Shimba, south of Mombása), a short distance from Baringo (about a quarter of an hour). This rivulet is probably an influent, having its source in

the above highlands, and thus a tributary to the lake. It was about two yards wide, and of shallow depth, only covering the ankles. He also crossed two other streamlets on the western side of the lake, flowing nearly parallel to each other, and the shore of the Baringo, and only a short distance from it: one or both of them probably coming from the lofty hills he saw when in the Lugúmè country, which are situated to the north-west of the Baringo Lake. He says there are also large hills north-east of the lake, and that, in fact, the whole is a mountainous or hilly region. Ngárè (or river) Davásh flows out of the Njémsi stream near Séro, and flowing due east, enters a region called "Kililéóni," in the Wándoróbo country, and thence to that of the Masái. The Davash—though in Ki-Masái the word means broad—is but a narrow stream, being only a few yards across, and easily fordable. On both sides of the river (at Séro) the Wándoróbo have built their huts, the whole forming a permanent settlement, containing about a hundred dwellings.

The Njémsi Volcanic Mountain.—In the Njémsi country, to the south of the Baringo, is a large volcanic mountain, with hot springs at the base.

There are 30 or 40 craters, not very large, and are all situate at the base of the mountain. From these craters large volumes of smoke are constantly issuing, resembling, Sádi says, "*mináro*" pillars or columns, like those from the funnels of steam-ships, the smoke is so abundant and dense as to obscure all objects in its vicinity, and beyond. The craters are constantly active, except at night, when they subside. The craters send out no fire, nor even stones, nothing but smoke. There are black stones at the base of the mountain. Sáváhilis sometimes pick them up and use them for gun-flints, but Sádi says they can only be used once or twice. They will not strike afterwards.

The mountain is somewhat of a cone in form, and is rocky and rugged from (*túmbo la mlína*) the slope to the summit, here and there broken and jagged, and the rocks pointed and sharp. At the base there are hot springs, which are constantly boiling up or bubbling. The water is very hot; the fingers cannot be borne in it. If a little flesh-meat is put in, it is "done" immediately, quickly cooked. The water is in small but very numerous pits or pools ("*Visima*"). It wells over, but forms no stream, merely spreading over the ground. If some of the water is drawn very early in the morning, and put into a cool place, "it is not cold until about 3 p.m.!" The caravan drank it cold, and also used it in cooking their food; and Sádi says it was very good (sweet).

THE PEOPLE OF BARÍNGO.

The races immediately dwelling about the Lake Baríngo are the Wa-Súku, the Wa-Ligéyo, and the Wa-Njémsi.

The Wa-Súku inhabit the region to the north-east and north-west of the lake, occupying both banks of the (northern) Nyarús River. Their country is called *Lugúmè* or *Súku-Lugúmè*, and is a region much feared, and consequently is evaded by caravans from the coast. Being surprised at Sádi knowing so little of the above stream, I asked him if he did not enquire about it from the lake people? when he replied that *Wa-Súku* were the only people who knew about it, and of them they were afraid; hence they turned back when they had reached the point marked on the map.

The Wa-Súku are feared on account of their ferocious and barbarous character. They are brave and daring, but guilty of many horrible and brutal deeds. They do not hesitate to give battle to the Masái. The latter pay them predatory visits and carry off their cattle, and they also go to the Masái country and lift their cattle in return. Despising sheep and goats, which they find with the Masái and others during their plundering excursions, they frequently spear them, and leave them on the spot; sometimes they content themselves by merely maiming them, by cutting off their tails, &c. They even spear dogs if they come in their way. If, during these raids, they capture a pregnant woman, they cut her open, take from the womb the unborn infant and cut it into pieces! Frequently they will cut off the hands of a captive warrior (Mkwávi, Masái, or any other), and then say to him, "go now, go your way, and how will you manage to eat?"

The Wa-Súku, though living near the lake, and on the banks of an ample stream, do not eat fish, though they abound in the water near them. They are agriculturists, and also pastoral. They cultivate the ground, and are also rich in cattle. Their weapons are light spears, which they throw with much dexterity and precision. But Sádi says, if near their enemy they do not hurl their spears. To catch a fleeing foe they throw, and to a good distance.

The *Wa-Ligéyo* live on the western side of the lake, but a good day's march off the shore.

The *Wa-Njémsi* live on the south-eastern and south-western shores of the lake, and on either bank of the Njémsi (or Nyarús) River; and their plantations stretch a considerable distance southwards along the stream. The people are agriculturists, but also possess cattle. They also employ themselves exceedingly in fishing. A species of large fish, of which they make

great use, being abundant in the waters. Ulédi describes it as having a large head with a beard, and very long narrow body. He says the Wa-Njémsi prepare and preserve it in various ways—sometimes they split it and dry it in the sun, like the preserved shark and other kinds of fish, which are annually exported from Arabia to the east coast of Africa. At other times they cut it up, and submit it to a process of cooking, in order to extract the oil which it yields abundantly. This they store away in utensils.

Sádi says the Wa-Njémsi are the “ráya” (subjects) of the Wa-Súku. Both they and the Wa-Súku are said to be the descendants of the Masái. Reduced Wakwávi, namely those who have been robbed of their herds, have identified themselves with the Wa-Njémsi, and together with them cultivate the ground.

No. 6. DOWN-ROUTE.

Viz., from Lake Baríngo to Ndára Séríán along the western bank of the River Njémsi.

1st day's march	.. .. .	5 hours.
2nd „ „	.. .. .	5 „
3rd „ „	.. .. .	8 „
4th „ „	.. to Siágnáu	7 „

This name is Kikwávi, and Sádi says, means “an open clear tract of land.” He speaks of this locality as fully answering to its designation. He says—there are no trees, no thicket or bush of any description near the place, but that the whole region is a clear and open plain, furnishing no convenience whatever for a bivouac or defence in case of attack.

There are no thorns by which to make a fence for the camp, as is usual with the coast-caravans, when in the interior, not even a stick or bit of cow-dung to kindle a fire. For the night the camp is comfortless, and without protection, and the men, feeling their insecurity, sleep gun-in-hand.

5th day's march	.. .. .	7 hours.
6th „ „	to the plantations of the Wa-Njémsi	6 hours.
7th „ „	to base of Likámasía Mountain	4 hours.

This is a large mountain; it is lofty, and spreads to a considerable extent. Its northern limit is at Ligéyo, and its southern termination, Subúgo. It is habited. The people, who are very numerous, are called Wa-Kamasía. They live on the summit, which is level, where they cultivate the soil and pasture their cattle. None of them live below.

Width of the mountain: about 3 hours or more. Length: 1½ day. Especially lofty at the southern end.

8th day's march—from *Likímasia Mountain* to *Subúgo* 9 hours.

Subúgo to *Máu* 6 hours.

Máu is a large tract of country, embracing 5 or 6 days' journey. The inhabitants—*Wa-Máu*—wander about a great deal, hunting.

To *Northern frontier of Lúmbwa*. At *Lúmbwa* there are about 1,000 villages. The people—*Wa Lúmbwa*—are agriculturists, and have much cattle. [8 hours.]

To *Southern frontier of Lúmbwa*. [9 hours.]

To *Líkunóno*. [4 hours.] The inhabitants—*Wa-Líkunóno*—are blacksmiths. They do nothing else but forge—sometimes implements of agriculture, and at others weapons of war—spears, swords, axes, knives, hoes, &c. These things are purchased by the *Wakwávi* and other tribes, with cattle, grain, honey, &c.

The villages of *Líkunóno* are not permanent.

To *Kitavéni* 9 hours.

To *Kirísha* 12 hours.

To *Ndára Sérían* 10 hours.

Here is a mountain called *Keréto*. It is lofty, but has comparatively little length or breadth, about $1\frac{1}{2}$ hours to the n.w. of camp.

APPENDIX.

BY KEITH JOHNSTON, JUN.

Notes on the Map to Mr. Wakefield's Paper.

I. AUTHORITIES.

The sources whence the data for the map have been obtained, and to which reference has been made in its construction, are:—

1. A manuscript map of the part of Eastern Africa which lies between the Pangani and the Dana rivers on the coast, and the Victoria Nyanza in the interior, drawn from personal and native information. By the Rev. Mr. Wakefield.

2. The notes on the caravan routes which are printed in this volume.

3. The results of the journey made by Baron Von der Decken to Mt. Kilimanjaro, as contained in the first volume of his work, and in the accompanying map by Mr. Hassenstein, 1870.

4. The journals of Dr. Krapf's routes to Usambara and Ukambani, preserved in the volumes of the 'Church Missionary Intelligencer,' from 1849 to 1853, and in Dr. Krapf's book of 'Travels in Eastern Africa.'

5. The map of Dr. Krapf's routes (on the basis of a preliminary reduction of Von der Decken's positions), prepared by Mr. Hassenstein and published in Petermann's *Mittheilungen* of 1864.

6. Dr. Krapf's manuscript map which accompanies his book of travels.

7. The journals and maps of Mr. Rebmann contained in the volumes of the 'Church Missionary Intelligencer,' above noted.

8. Dr. Kiepert's map of Krapf and Rebmann's discoveries (*Zeitschrift für Allgemeine Erdkunde*, Berlin, 1860).

9. The manuscript known as the 'Mombas Mission Map,' prepared by the missionaries Erhardt and Rebmann in 1855.

10. Burton's report of a journey to Usambara, in the 'Royal Geographical Society's Journal' for 1858; 'Lake Regions of Central Africa,' 1859; and a paper on Lake Tanganyika, 1865.

11. Speke's narratives in 'Royal Geographical Society's Journal,' and elsewhere.

12. A map of Eastern Africa, by Léon des Avanchers, Missionnaire Apostolique, and the accompanying paper in the 'Bulletin de la Soc. de Geog.' Paris, 1859.

13. Guillain; Documents sur l'Histoire, la Géographie et le commerce de l'Afrique Orientale, collected 1846 to 1848.

14. The narrative of the Rev. Mr. Wakefield's personal journey from Ribé to the Galla country, given in a pamphlet published by the United Free Churches Mission, and entitled 'Footprints in Eastern Africa.' London, 1866.

15. A portion of the narrative of a journey made by Messrs. Wakefield and New, in company, from Mombasa to Upokomo, on the Dana river; published in 'The United Free Churches Magazine' of 1866-67.*

16. A map of the routes of the missionary Richard Brenner in the region between the Dana and Juba rivers, contained in Petermann's Mittheilungen of 1868.

The Admiralty charts have been used as a basis for the delineation of the coast-line, but have been supplemented at several points by the more detailed surveys of recent travellers; the more important of these emendations are in the coast-line from Pangani river to Tanga and Wassio, from Burton and Speke's information; at Mombas, from the survey of the harbour by the brig 'Ducoëdic,' under M. Guillain; at Malindi and the chain of islands between the mouth of the Ozi and Wabushi rivers, from the sketches of the missionary Brenner.

II. THE CONSTRUCTION OF THE MAP.

Mr. Wakefield's manuscript drawing (the sole authority for the western portion of the map) has evidently been prepared by him independently of any of the existing materials, excepting only that he has placed on it the southern termination of Lake Nyanza in the form and position given to it by Captain Speke. In this respect the manuscript has great value, but, as is to be expected, it betrays a tendency to exaggerate the distances landward. Mount Kilima-njaro is shown on it nearly 30' further inland than its position astronomically determined by Von der Decken; the stations between this and the coast are correspondingly out of position, and westward the exaggeration appears to increase. Mount Kenia also is placed some 45' to westward of the position which is believed to be more nearly true. The distances from place to place on the reported routes may be to some extent checked by the time required to pass from one to the other, as given in Mr. Wakefield's notes; but for the relative bearings of these places, and the general direction of the routes, we are entirely dependent upon the manuscript map. That some confidence may be placed in these bearings is shown by the tolerable agreement of the positions, as laid down on the manuscript, with those determined astronomically. Beyond these known points, however, the adjustment of the reported routes admits of considerable latitude, and in order that a personal opinion may be formed by those who are competent to judge of the value of the new geography shown on the map, it has been thought advisable to give a statement of the manner in which each route has been laid down.

The two great landmarks in this region are the snowy mountains of Kilima-njaro and Kenia. The position of the former (Lat. 3° 5' s., Long. 37° 27' E.), as well as the geography of the whole of the country traversed by Baron Von der Decken from the coast, has been adopted from the large scale map which accompanies the first volume of his work, and may be considered as true. The real position of Mount Kenia is less certain. Its latitude can only be determined by the distances and bearings of Dr. Krapp's routes to its base in Ukambani. These

* It is to be regretted that though every effort has been made to recover the unpublished manuscript of this important journey, no success has been met with.

were first laid down by Dr. Kiepert, but the most elaborate reduction of these routes is that by Mr. Hassenstein, noted in the list of authorities (5).

Relatively to Kilima-njaro, on this map, Mount Kenia lies almost due north of it ($2^{\circ} E$). Since the production of the map of Dr. Krapf's routes (in 1864) a more critical examination of Von der Decken's astronomical observations has led to a change in the position of Kilima-njaro, as temporarily laid down, altering its longitude as much as $16'$ to westward. To maintain the same bearing from Kilima-njaro as before, the position of Kenia has also been moved westward, and now falls in Lat. $1^{\circ} 16' S.$, Long. $37^{\circ} 35' E.$, which is considered as not far from its true place. On the positions of these two points, the alterations which have been made in the bearings and distances shown on Mr. Wakefield's manuscript mainly depend.

ROUTE 1.

In the earlier part of this route inland from Tanga, the positions of Baramo, Gonja, Kisiwani, and Arusha (at the base of Mount Kilima-njaro) are common to this and to Baron von der Decken's journey, during which their places were astronomically determined.

Beyond Arusha, the central part of the route, to as far as Naivasha, has been laid down by the position of that lake, as given in the reduction of the route (3) from Mombasa to Dhaicho. From the altered Naivasha to Baharini on the shore of the Nyanja, the bearings and distances of Wakefield's manuscripts have been accurately followed, since the distances from place to place there shown agree well with the average rate of travel, given by the portions of the routes which admit of correction by fixed points.

ROUTE 2.

From Baharini, as given by Route 1, the first portion of this route has been laid down to the position of the Gilei mountains, as shown on Mr. Wakefield's map between Ngorot and Pinyinyi in Route 1. The distances of this part, which appear to be considerably exaggerated on the manuscript, have been reduced to fall in with these terminal points, still the rate of travelling thus reduced agrees nearly with that of the route from Naivasha to Baharini. Several points on this route, as well as on Route 1, are easily identifiable with the position on the route to Burgenei reported by Erhardt. The remaining portions from Gilei to Arusha have been entirely laid down by the positions on Route 1.

ROUTE 3.

From the coast at Mombasa to as far as Taveta (Dafeta), this route has been laid down with confidence, since several of the points along it are identical with positions ascertained by Von der Decken. The chief of these are Gurungani (Ngurungani), Kisigau (Kisigao or Kadhiaro), Matate and the Bura camp. The farther part of the route has been placed on the map from Decken's position of Taveta, and that of Mr. Kenia (Doenyo Ebor of Wakefield) previously noted, preserving the relative bearings of places between as given by Wakefield, but necessarily reducing the distances shown on his manuscript.

ROUTE 4.

This route starts from Sigariri, a position on the return route from the Nyanza (Route 2), and the direction of the former portion of it is determined by the position of Lamwea on Route 3. Here an alteration has been made on the rendering of the manuscript map, which gives two separate positions to Lamwea. This place is evidently identical in both routes from the descriptive notes. Beyond Lamwea to Settima Mountain, the middle

portion of the route nearly coincides with Route 3 in this region, with the exception that between Lamwea and Miviruni, this route seems to take a more direct course than the other, as it also does between Miviruni and Naivasha. The notes state that this route crosses the Settima Mountain (possibly by the same pass that is used in Route 3), but the manuscript map carries the route to westward of Settima. To correspond with the statement of the notes, the direction of the route has here been altered to pass over the mountain. Directly after descending the inward slope, this route diverges from Route 3, and goes northward. From this point the bearing of the route has been retained exactly as in the manuscript map. The distances, reduced in the same proportion as those of the corrected journey between Kilima-njaro and Kenia, bring the Samburu country, at the termination of the route, into nearly the same latitude as the Tsamburu of Rebmann, and of Lake Böö of Léon des Avanchers. There is no indication whatever in Wakefield's map or notes of the position of Samburu Lake (evidently Lake Böö), which, however, is said to rival Lake Baringo in extent. The statement in the notes that Sadi saw the *northern* end of Samburu Lake on arriving at the southern frontier of the territory of this name, is apparently a mistake. A lake of the extent described, with its northern end at the southern frontier of Samburu, and lying N.N.E. to S.S.W., besides being out of its proper country, would, if it be supposed to lie westward of the route to Samburu, overlap the Baringo, if to eastward, would occupy the space through which Mr. Wakefield has drawn an undescribed land route. The word *southern* has been read instead.

ROUTE 5.

This route leads northward from the position of Gwaso Ngishu on Route 1. For the reason that there is no available means of checking the bearings of this journey, and since the distances shown are not in excess of the average reduced rate, it has been thought advisable to lay down this route exactly as it is shown in Mr. Wakefield's manuscript, to as far as the point where Lake Baringo is touched upon.

This is the point at which the traveller came upon the territory of the Wa-Suku, who inhabit the mountainous country lying round the northern part of the lake. Lake Baringo has been laid down according to the dimensions and bearing stated in the notes, agreeably to the above indications, and falls then into the place given to Bahari N'go by Captain Speke, and into that of the Baringo reported by Erhardt, in 36° east longitude. Krapf places the Baringo in 34° E.; Hanenstein in his map drawn from Krapf's reports has it in 38° E. On the map by Léon des Avanchers a district named Baharingo, with the note "près d'ici est un grand Lac," is placed to the south of Besé-goujou (Wa-Suku?) and west of Lorian, agreeing with this later information.

ROUTE 6.

The distances on this down route from the Baringo have also been preserved exactly as on Mr. Wakefield's manuscript, but if the bearings were retained this route would cross over the waters of the lake, the dimensions given to it in the notes being adopted. To avoid this the direction of the route from Baringo has been altered so as to carry the path along the western coast of the lake as far as the Máu camp, south of Subúga. Thence to Kirisha, the second station from the termination of the route, the bearings have been retained exactly as on the manuscript. The position of the whole of the latter part of this route, and especially of the final station of Ndara Serian (Endarasereani of Erhardt), is very uncertain. The notes give this place or district a south-easterly direction from the Lumbwa camp (on Route 1), but on the

manuscript it is shown to south-west of this position, and near the point marked Sero. The latter position has been chosen for it on the map, since, to arrive at Ndara Serian, if it be supposed to lie south-eastward of Lumbwa, the river Njémsi must be crossed, and there is no mention of a crossing of this river in the notes on this route. Still this place, Ndara Serian, is the only one point on this route referred to in the notes, as being in any way connected with the other journeys, and the uncertainty of this solitary tie-point renders the construction of this particular route the least reliable of the whole.

The undescribed routes shown upon Mr. Wakefield's manuscripts have been laid down on the map, in the same bearing and relative position that he has given to them, but a distance correction, reducing their length by the average amount of exaggeration found in the other routes has been applied.

An estimate of the mean amount of error over the whole of the routes shown on the manuscript, gives an exaggeration in length in the proportion of 1.24 to 1; and the bearings throughout show a leaning in the direction to the west of north of 15° on an average.

III. THE RIVERS, STREAMS, AND LAKES.

The Hydrography of the new region described in the notes collected by Mr. Wakefield, and shown on his manuscript, presents numerous discrepancies. In the attempt to adjust these in a natural manner with the aid of former reports, various alterations have been made, especially in the direction in which certain rivers are stated to flow, the reasons for which seeming inversions are given in the following notes.

ROUTE I.

In the route from Tanga, the rivers Umba (rising in Baramo Mt.), Kati (rising in Msili Mt.), and Chwere Chwere, are crossed in the above order, proceeding westward. Baramo Mt. is however furthest west, as is also the river Umba in Decken's route; the Chwere Chwere (Chur-Chure of Decken) is given by him midway, and the Msili Mt., on the east of the mountains of Baramo. It seems probable therefore that Mr. Wakefield's informant has transposed the order of arrival at these rivers, and that the name Kati should precede that of the Umba.

Ruvu River (Pangani). The position of the upper course of this river below Arusha has been drawn eastward of the previous representations to agree with the distances given in Route I., a portion of which passes along its banks.

Arusha Lake, identified (wrongly?) with Lake Ro by Erhardt, is shown by him to eastward of Meru mountains. Reumann and Decken do not mention this lake, and neither does Mr. Wakefield's informant. Krapf, possibly following Erhardt's indication, places a lake Ro in this position. It has been indicated on the map, on Erhardt's authority, east of Meru Mountains, and north of the caravan route.

Augaruka Stream.—A stream at a place named Engorodo on Erhardt's map, is shown flowing round the base of Doenyo Engai, and falling into the salt swamp there indicated. This is probably the Augaruka. The stream at Ngopot is also apparently a feeder of the swamp.

Neiwasha Lake.—Neiwasa of Erhardt, Neiwasha of Krapf, and Neiwacha of Léon des Avanchers, has been laid down according to the dimensions given in the notes, and appears to have no outflowing river.

Gwaso Ngishu.—If this is a stream as the name implies, its course is most probably to the Nyanja.

Nyanja, Sea of Ukara, or Second Sea. The point of interest in connection

with the great lake on whose shore Sadi stood at Baharini, is the question whether it is indeed the same lake which Captain Speke saw and named the Victoria Nyanza. It is observed that the reduction of the newly reported routes, made entirely without reference to the extent of this lake, places its eastern shores very nearly in the same position as that indicated for them indefinitely by Captain Speke, and that its supposed area is not materially altered. That the name of the lake here given should differ in some degree from that received by Captain Speke is of very little moment, but it is remarkable that not one single name of district, people or place* given in these new routes has any such remote resemblance to names reported by Speke and Burton, as to warrant an identification with any one of these. At page 275 of his 'Lake Regions,' Captain Burton says, "These races" (of the coast people on the eastern side of the Victoria Nyanza) "are successively from the south, the Washaki, at a distance of three marches, and their inland neighbours the Watatura" (lat. 2° 10' s. to 2° 20' s. on Speke's map) "then the Warudi, a wild tribe, rich in ivory, lying about a fortnight's distance; and beyond them the Wahumba or Wamasai." "Commercial transactions extend along the eastern shore as far as Thiri or U'hiri, a district between Urudi and Uhumba." The fortnight's distance from the south end of the lake should approach very near, if not actually to, the position given to Ukara by the new routes. It is possible that Thiri or U'hiri lies close on the south of the district of Ukara. Again, the names of the native states indicated by Captain Speke as lying between the north-east of the Nyanza and the Bahari N'ngo, are in no degree similar to those of the people's districts named on the caravan routes which traverse these states.

In a paper on the Tanganyika Lake and on the Nyanza, published in the Journal of this Society of 1865, Burton says "the principal alterations which I would introduce into the map appended to Captain Speke's paper are as follows:—1. Draining Lake Tanganyika into the Luta N'zige; 2. Converting the Nyanza into a double lake, the northern part fed by rivers from the western highlands, and the southern by small streams from the south and south-east. The former in Captain Speke's book appears to be merely a broadening of the Kitangule River, and thus only can we explain the phenomena of six large outlets in 30 geographical miles". . . . "Within a distance of 1° the map shows three first rate streams, viz.; the Mwerango, the Luajerri, and the Napoleon Channel issuing from the Nyanza. I believe this to be a physical impossibility." . . . "In p. 130 of Captain Speke's Journal the petty chief Makaka assures Captain Speke that 'there were two lakes and not one'—unfortunately the hearer understood that the Bahari N'ngo was alluded to."

That the arguments which Captain Burton used in recommending a division of the Nyanza had not a sufficient basis of proof to give them moment is shown by the acceptance of the lake as one sheet of water by the whole geographical world. Yet the only evidence that we have of the extension of the lake eastward of the meridian of its southern extremity is the statement given by Captain Speke that "A man who had been on the island of Ukerewe and had seen the broad expanse of the Victoria Nyanza beyond it told me that the lake was as broad on the eastern as on the western side though it could not be seen by us then" (from the Observatory Hill) "in consequence of Ukerewe standing in the way. He also said the lake was of indefinite length."

On the northern side also the evidence of eastward extension is limited to report (given on p. 330 of Royal Geographical Society Journal, 1863). "The Waganda confirmed the statements I had heard in Muanza" (south end of the lake) "regarding the extension of the lake to the eastward, where it was said there was as much water to the east of Observatory Hill as there was to the

* With the exception of that of the Wa-Masai, a general name for the people of the whole region east of the lake.

west; for the Waganda, who sometimes go to the Bahari Ngo for salt, said the strait leading into the 'Ngo lake was as far from the Ripon Falls as the mouth of the Katonga was in the opposite direction. They did not know the 'Ngo by name, but called it a salt lake, as they found salt there. No one in these regions knew of a river flowing into the 'Ngo, but all alike stated that one flowed out of it and joined the Nile, thereby making, as they called it, Usoga, an island."

Captain Burton's recommendation would seem to receive some slight support from the new information obtained by Mr. Wakefield. First, then, there is the (Arab?) name by which the lake is "often designated;" "Bahari ya Pili," the Second sea, which term we are expressly told has no relation to the Atlantic, and probably none to the Indian Ocean or the Baringo (which might be considered as the "first sea"), for Mr. Wakefield appears to have questioned his informant regarding the name, and Sadi who had seen the Baringo, would have referred the name "first sea" to this lake if he had heard it so termed. What then is the first sea? Surely it must be close to that which is named the "second."

Next, the width of the lake, if Sadi's information be correct, is too small for that of the Nyanza and Nyanja as one lake. Six full days' paddling from sunrise to sunset, or three days of continuous rowing, would scarcely suffice to transport a native canoe even to the shores of Uganda, on the north coast, distant 150 miles, much less to the western shore. Burton estimates the speed of rowing canoes on the Tanganyika at little more than 2 miles an hour, for long journeys, halts deducted; and even allowing that the canoe moved in a perfectly direct line at this speed for twelve hours in each day, the distance made could scarcely exceed 140 miles. It is more probable that a six days' journey would not reach so far as this, and the western shore is 250 miles distant.

Again, standing on the eastern shore, Sadi could descry nothing of land in a western direction, except the faint outline of the summit of a mountain on the horizon. But this mountain could not possibly be any part of the western shore of the Victoria Nyanza, or even the Mfumbiro Mt. (10,000 feet high), for this is more than 300 miles distant. The only suggestion which seems feasible, if the Nyanza and the lake at Baharini be considered as one expanse of water, is that this mountain summit, seen from the low eastern shore, is a high island rising in the midst of the lake; but such a feature could not well have been missed entirely by Captain Speke—he would either have seen or heard of it.

ROUTE 2.

Gwaso na Ebor, white river, sparkling like quartz, or possibly with chryso-tallized salts, is probably a branch or feeder of the Nitrate of Soda swamp, which appears to extend from Augaruka to Ngurumani northwards.

At *Ngare na Njuki* and *Ngare na Erobi* streams have been shown, as described in the notes, flowing from Doenyo Erok and from Kilima-njaro. These probably unite also to supply the great salt swamp.

ROUTE 3.

The information given respecting the part of this route which falls between Dafeta and Dhaicho, alters the representation of the upper course of several streams, which take their rise between Kilima-njaro and Kenia, as shown on previous maps.

From Dafeta the route appears to follow the valley of the *Lumi*; but the point at which the *Tzavo* is reached indicates that the *Lumi* cannot have such a northerly course as is shown on Von der Decken's map. The *Lake Tzavo* (? *Luaya* of Rebmann), through which the *Tzavo* is said by Krapf to flow,

appears to lie eastward of the new route, since it cannot well lie at a higher level to be seen from the top of Julu Mt.

The *Sabaki* River, mentioned by Wakefield, and named *Yata* at its sources on his map, is evidently the *Adi* or *Sabaki* of Krapf. It appears to rise in the northern slope of Kilima-njaro, thus confirming the statement of Krapf that a branch of the *Adi* rises in Kilima-njaro (p. 233, 'Ch. Miss. Int.,' 1852).

Tiwa River, shown on the manuscript map as a tributary to the *Sabaki*, but not mentioned in the notes, is probably the *Tiwa* of Krapf, and it has been retained in the position given to it by that traveller.

The *lake* at *Leta Kotok*, mentioned in the notes but not shown in the manuscript, may lie to northward of the *Sabaki* River, since it is mentioned after it in turn; but there is no indication of whether it lies east or west of the route.

Tama River, the *Dana*, cannot well have its sources in the *Mu* country, as the notes describe it, for that district lies beyond the salt lake *Naivasha*, and that basin interferes between. Three streamlets, which rise in the *Settima* Mt., and uniting flow on to near *Mianzini*, appear to form the head stream of this river, and among the tributaries flowing to it from *Dhaicho* and *Kikuyu*, the *Dika*, *Dida*, *Kingaji*, and *Ludi*, spoken of by Krapf, are evidently four.

The *Ozi* River is represented on Mr. Wakefield's manuscript as rising in the *Settima* Mountain; but in his notes he describes it as being crossed to northward of *Msarara*, and this description would bring its course between this mountain and *Dhaicho*. Further he states that it receives tributaries from north and south, *Dhaicho* and *Meru* (*Msarara*) necessitating an alteration from the manuscript to agree with these statements. The source of the *Ozi* would then appear to be in the northern slope of *Kenia*, and this is confirmed by the report of the origin of this river from a lake in the north-east of *Kenia*, received by Dr. Krapf (p. 77, 'Ch. Miss. Int.,' 1852): "From this lake the *Dana*, the *Tumbiri*, and the *Nsaraddi* take their origin. The last-mentioned river goes to north-east to a much larger lake, called *Baringo*." Dr. Beke suggests (see p. 87, as above) that "Dr. Krapf has inadvertently transposed the two, named *Tumbiri* and *Nsaraddi*; . . . then his '*Tumbiri*' would correspond with the *Tubirih* of M. Werne." The *Nsaraddi* here mentioned is probably the *Ozi*.

Gwaso Nyiro, according to *Sadi*, "flows from the *Njemsi* Mountain, and turns off northerly near the camping-place" (west of *Dhaicho*) "and goes to *Samburu*."

Captain *Speke*, in vol. xxxiii. of this Journal, p. 322, says: "The Arabs, by their peculiar mode of expression, spoke of the flow of a river in a reverse manner to that in which we are accustomed to speak of the direction of a current." Captain *Burton*, in vol. xxxv. p. 4, says: "The African account of stream-direction is often diametrically opposed to fact; seldom the Arabs." *Sadi*, who is a *M'swahili*, and *Uledi*, another of Mr. Wakefield's informants, have occasionally used this reverse method of expression. One of the most palpable instances of this is given in the description of the rivulet, which is spoken of as "issuing from the lake (*Baringo*), and then flowing south-easterly until lost amongst a group of lofty hills." It seems probable that the direction of *Gwaso Nyiro* has been reported in this inverse manner, for, in the direction of *Samburu*, the country appears to rise, and the *Njemsi* Mountain, from which the river is said to flow, is apparently a single volcanic cone, which does not indicate any extensive elevation. We are told (*Route 5*) that "the springs from *Njemsi* do not form any stream, but merely spread over the (level?) ground." The *Gwaso Nyiro* is spoken of again at *Suvucha* (*Route 6*). The water-parting of the whole of this region apparently lies in a line nearly continuing the direction of the summit peaks from *Kilima-njaro* to *Kenia* and *Dhaicho*, and therefore the more probable course of this river is from the direction of *Samburu*, or from northward round to westward to *Suvucha* and thence to *Baringo* Lake. A river thus indicated would correspond to the *Tumbiri* of Krapf.

The second *Gwaso Nyiro* seems to be accurately described by Sadi as a feeder of the swamp at Ngurmani, flowing from the Mu country. This stream probably has its origin in the hills indicated to southward of the "Mu camp," which lies westward of Naivasha (on Route 1), since no mention is made of crossing it on that journey.

ROUTE 4.

Ngare Rongai, a stream coming from Chaga, is probably a seventh tributary to the great swamp at Ngurmani.

The *Gogru Baghase*, a stream mentioned in the notes, but not indicated in the manuscript, is evidently a tributary of Lake Naivasha, and reaches the eastern shore at the place where the waters of the lake are reported to be fresh.

The course from Dondole, a district near Njemsi Mountain, given to the *Motonyi* River, is apparently a second case of inversion of the direction of flow, since it is much more probable that this stream issues from the heights which continue the water-parting south of Settima Mountain, and has its course towards the Njemsi and the valley of the Nyiro River, of which it would then be a tributary.

Agnata Fus, a stream from Settima Mt., must fall into the *Motonyi*.

Migungani River "flows out of the river Nyiro, near Suvucha, and afterwards enters the Ozi." Inversely this stream is a tributary of the Nyiro, flowing possibly from Kenia, in which mountain its source may be near that of the Ozi. Krapf (p. 37 of 'Ch. Miss. Int.')

remarks that "rivers descending different slopes of the same watershed, from the contiguity of their sources, are often spoken of in native phraseology as having a common origin."

A second *Ngare Rongai*, not mentioned in the notes, is shown on the manuscript to westward of Kenia, and may possibly be the head stream or a tributary of the *Migungani*.

Ngare Ndogei, which crosses the route to Samburu, "comes from Lorian." Here again the direction of the current seems to be reversed. It is much more likely that the river comes from the "lofty hills" spoken of as rising on the east side of Baringo Lake, and flows toward Lorian, in which direction it would join the *Gwaso Nyiro*.

ROUTE 5.

The *Northern Nyarus*, "30 yards wide," in all probability flows out of Lake Baringo, and thus may possibly be identified with the *Tubirih* or *White Nile* of Werne, or the *Asua* of Speke. The *Southern Nyarus* (or *Njemsi*) we have identified with the *Nyiro*, coming from Samburu.

ROUTE 6.

The *Njemsi*, spoken of in this route, is probably a separate river from the *Southern Nyarus* or *Njemsi* (a part of which flows through the *Njemsi* country), and is evidently not an affluent of the *Baringo*.

Its source and southward course, we are told, are in the *Njemsi* country, and it is again mentioned in connexion with *Sero* (Route II.), at which place a tributary—the *Dawash*—reaches it from the *Kilileoni* country eastward. This indicates that the direction of the main stream here is to westward or south-westward, possibly to the *Nyanja*. In this case it would coincide with the *Sero River*, described by Erhardt, flowing westward from near *Ndara Serian*.

There is no mention of an outflow to northward from Lake Samburu, but

such an outlet must exist. Léon des Avanchers shows a river flowing out of his Lake Bôô to north-westward, "an affluent which the Somali say is the Nile," which may correspond to the Saubat; but the possession of the country round the lake by the Somali would rather indicate that it belonged to the opposite watershed,—to the Juba basin.

4. PHYSICAL FEATURES.

The broad physical features of the region under consideration are (1) the watershed to the Indian Ocean, marked by the Rufu, Dana, and Ozi Rivers; (2), a belt of continental drainage on the height of the plateau, containing the salt lake Naivasha, and the great swamp at Ngurungani; (3), the inward slope to the Nile Valley beyond this, with the Nyanja and Baringo (fish-yielding Lakes of fresh water).

The Indian Ocean watershed has the general character of a gentle slope up to the high peaks which rise on the water-parting line, but is sharply divided into two sections of completely different aspect, by a remarkable line of landward sloping heights which extend for 250 miles from the western borders of Wanyika land diagonally to Mount Kenia. This ridge, of from 100 to 200 feet in height, appears to mark a great fault line, and would indicate that at one period a general sinking of the portion of this watershed which lies beyond it has taken place. It has this curious effect, that whilst the slopes from its edge to the coast receive the rains from the Indian Ocean, and have in consequence a fertile character, the lands immediately inland of the ridge, deprived of the rains because sheltered by it from the sea-breezes, are barren and desert.

As soon, however, as the land has again risen to a height sufficient to intercept the rain-bearing winds, there is a second belt of fertile country, in which the populous States of Pare, Chaga, Teita, and Kikuyu are found.

Similarly protected by the water-parting heights from the sea winds, but lying at a high elevation, the region of continental drainage has a rainfall which is very partially distributed. The higher grounds receive sufficient moisture to admit of plantations and agriculture, but the lower portions between are less fertile or even barren; and the salt lake Naivasha shows that in its neighbourhood the rainfall and evaporation are nearly balanced, whilst the dried-up swamp behind the height of Kilima-njaro proves that there the evaporation is in excess.

The Njemi Volcano in this region has a special interest, since if the report be true, it is the only one which is known to present any signs of activity in the African Continent. The information respecting it is confirmed by various independent reports. The missionary Erhardt, in the Memoir to his Map, says, "After passing the slope of Endara Seriani, there is a bare desert land having a rough strong soil, mixed with sulphur and interspersed with hot springs, which stretches as far as the neighbourhood of Burgenei" (Burkeneji of Wakefield).

Dr. Krapf also heard of it. "This morning, Kivoi" (Dr. Krapf's informant in Ukumbani) "made mention of a volcano which he placed in the Wakuaifi country; to the north-west of the snow mountain Kenia. He called it a fire-mountain, of which the hunters were very much afraid." (Journal in 'Ch. Miss. Int.,' 1850.) In speaking of the country to north-west of Kenia, "Rumu," a native of a different locality, also knew of the fire-mountain of which Kivoi had first informed Dr. Krapf. "Rumu called it Kirima ja Jioki, or Mountain of Smoke. He stated that there is much water round it, and such miry ground that travellers cannot approach it." ('Ch. Miss. Int.,' 1852, p. 234).

5. THE LIMITS OF THE DIFFERENT PEOPLES.

From a combination of the information and reports given by the several travellers named in the list of authorities, it has been possible to mark out approximately the limits of the territories occupied by the various tribes of this region.

A main line of division extends diagonally across the slope to the Indian Ocean, and separates between the Galla races northward, and the completely different tribes which lie to southward of it.

The non-Galla area, or the whole of the remaining portion of the map, may be broadly subdivided between the hill peoples, or the settled inhabitants of the fertile and isolated highlands, and the Masai and Wakwavi, the wandering and raid-making hunters of the arid plains, the constant enemies of the highlanders. The southern limit of the Gallas is clearly traceable from Dr. Krapf's information along the line of mountains which protects Ukambani on the east, and along the north of Wanyika Land, from Mr. Wakefield's personal knowledge. The caravans which proceed from the Wanyika inland are liable to be pillaged on the direct route across the desert to Ukambani, now by the Wa-Galla, now by Wa-Kwavi or Wa-Masai. The various isolated tribes and republics of hill peoples on the water shed to the Indian Ocean appear to have some affinity in race to one another. The more important of these states are Unikani, Usambara, Pare, Ugono, Chaga, Teita, Ukambani, Limeri, and Dhalcho, each occupying a distinct elevation.

The region of continental drainage on the plateau in the great domain of the Wa-Masai and Wa-Kwavi, two nomad peoples, hostile, but similar in habits and completely intermixed, whose dwellings, in some parts of this area, are permanent. The eastern limit of the country more constantly occupied by these hunters is indicated on the map, and includes Kikuyu and the plain of Kaptei, probably the most fertile country inhabited by them. The desert which stretches from this plain to Unikani south-eastward is subject to their temporary raids, as is also the country towards Samburu northward, and that between the Baringo and Nyanja. On the north and west the furthest limit of the Wakwavi is probably the edge of the lowland which seems to be defined by the base of the mountains east of Baringo, and thence their boundary might perhaps be drawn to Nandi and east of the country of Ukara to meet the Wa-Humba (Masai), whose territory, according to the report received by Burton, is probably to southward of Ukara, and not far from the Victoria Lake. Southward the extent of the Masai is indefinite, but in his description of the Wasegura people, whose country he traversed on the way to Tanganyika, Burton remarks that the Wa-Kwavi are a sub-tribe of them.

On the slope to the Nile Valley, the most distinct hill tribes are those of Nandi, Ukara, Ligeyo, and of Njemsi. Of the last named people it is remarked that they take refuge on being attacked by the Wa-Kwavi on an island of the Baringo. These peoples are said to be subjects of the Wa-Suku, the warlike people who occupy the mountainous country round the northern part of the Baringo, and who apparently belong to a distinct race, probably Nilotic.

Samburu is evidently the limit of a new watershed, and if Sadi's information is correct that the Wa-Samburu are subjects of the Somali, and speak a dialect of Ki-Kwavi, there must exist an almost isolated southern portion of this race inland, as there is of the Gallas on the coast slope, and the Somali, Wa-Kwavi, Masai, and Wasagara are connected; somewhere in the Upper Juba there must be a mingling of the Galla and Somali, elsewhere hostile.*

* Léon des Avanchers says that the environs of the Lake Bôô are inhabited by *Rendili-Gallas*, who are of a reddish colour, have long hair, and possess numerous herds of cattle. Lake Bôô is surrounded by conical mountains, the highest peaks of which are snow-clad.

On the south side of the Pangani River, the Wasegura people (Wasegua of Wakefield), met with by Burton and Speke in their journey to Fuga, appear to have advanced up the valley of the M'Komafi tributary of the Pangani, to as far as Gonja and Baramo, and the lower country between Pare and Usambara.

The Wandorobo, a vassal people to the Masai, are scattered in permanent villages over the central table-land.

XII.—*Report on the Central Silk Districts of Japan.* By
Mr. ADAMS, Secretary to H. M. Legation in Japan.

Yeddo, Aug. 7, 1869.

I LEFT Yeddo on the 22nd of June, 1869, accompanied by Messrs. Davison, Piquet, and Brunat, silk-inspectors, belonging to three different firms in Yokohama, and by Mr. Wilkinson, of this legation, as interpreter.

We travelled on horseback, and, as has been usual in the expeditions into the interior of Japan, which have been taken from time to time of late years by members of the diplomatic body, we were attended by a mounted escort, consisting of ten yakunins, supplied by the Government. One or two of their number started before us in the morning, and gave warning of our approach to the officials of each post-town in the day's route. Much trouble was thus avoided with respect to the transport of our baggage and provisions, and on reaching our resting-place for the night we found the officials and the keepers of the "honjin," or hotels, prepared to receive us.

On the road we met with great civility, both from the retainers of Daimios through whose territories we passed, and from the yakunins of the post-towns and villages. Our escort were also uniformly attentive to our wants, and the Government had even inserted in the 'Official Gazette' a formal notice of our intended journey.

In order to show our route more clearly, I annex a tracing of a Japanese map.* The original map, though not strictly accurate, is sufficiently so for the present purpose. I also annex a table containing the names of a number of towns and villages through which we passed, and the distance between them in "ri," as nearly as they can well be computed from the do-chiu-ki, or road-books. A "ri" is calculated to be 2.442268 English miles, so that during our journey we rode from 280 to

* This refers to the map in the original Report; the map annexed to this paper has been constructed on the basis of the Admiralty Surveys.—[Ed.]