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ON
THE EGYPTIAN PROVINCES
OF THE
SUDAN, RED SEA, AND EQUATOR.

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REPORT

ON

THE EGYPTIAN PROVINCES OF THE SUDAN, RED SEA, AND EQUATOR.

COMPILED IN THE INTELLIGENCE BRANCH,
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EXPLANATION OF TERMS USED IN THIS REPORT.

Atmoor = an arid plain.

Dokhn, Dhura, Sorghum = various kinds of native corn.

Khor = a watercourse, dried up as a rule.

Karif = the rainy season.

Fakis = learned men of piety, whose satellites are the Dervishes.

Mudir = a Governor.

Vakil = Deputy Governor.

Nassir = Sub-deputy.

Tukul = a native hut.

Seriba = an inclosure or fortified station

Wadi. See page 160.

SKETCH OF THE HISTORY OF THE EGYPTIAN SÚDAN, THE PROVINCES OF THE RED SEA AND EQUATOR, AND OF ABYSSINIA.

On the Nile above Assuan the Nubian desert limits the progress of the tourist of the present day, as for centuries it limited the extension of so-called civilization towards the heart of Africa. This progress was further impeded by the obstacles presented in the 2nd and 3rd Cataracts of the Nile, which render the river almost impassable for over 200 miles. Colonel Gordon writes: "From Wadi Halfa southwards to Hanneck, a distance of 180 miles, an utter desert extends, spreading also for miles eastwards and westwards on both sides of the Nile. For the same length the river also is encumbered with ridges of rock." "It was, therefore, this boundary of the desert that kept the warlike and independent tribes of the Súdán quite apart from the inhabitants of Egypt proper, and has made the Soudanese and the Egyptians two distinct peoples, that have not the least sympathy one with the other." South of the Nubian Desert lie the lowlands of Ancient Ethiopia, flanked on the south-east by the Abyssinian hills. Ethiopia was originally, in the days of Pharaoh, a colony of Egypt, and its capital, Meroe, a city of some importance. In later times it became independent, but was reconquered by the Ptolemies. The Romans, however, during their occupation of Egypt, fixed the Nubian Desert as their southern limit.

General
description
of the
Súdán.

Ethiopia enjoyed immunity from foreign invasion till 1821-22, when an expedition under Ismail Pasha, third son of Mohammed Ali, overran and annexed Nubia, and pushed right up to the Abyssinian highlands.

Annexation
of Nubia,
1821-22.

On reference to an atlas, it will be seen that the name Súdán includes the whole of that portion of Central Africa lying between the 10th and 20th degrees of latitude. The word itself means *Country of the Blacks*, and of late years it has been vaguely used by the public to designate the southern portion of the Egyptian Kingdom. As this latter, at the present day, extends to Lake Victoria Nyanza, and to the south and east of Abyssinia, it would be more preferable to use the general terms, "*The Egyptian Provinces of the Súdán*," "*Equatorial Provinces*," and "*The Red Sea Provinces*."

The annexation of the Súdán provinces took place more

Annexation

of the
Sûdan.

than half a century ago. Mohammed Ali, having dispersed the Mamelukes, and made himself master of Nubia, turned his attention towards the districts bordering the White and the Blue branches of the Nile. Gold was doubtless his main object, for he had heard rumours of mines of vast wealth; but we must also give him credit for an honest intention to introduce commerce and civilization into the midst of the Negro tribes.

Expedition
by Mahom-
med Ali,
1838.

One expeditionary corps subjugated the country as far as Fazokl on the Blue Nile, while another explored the White Nile. In the autumn of 1838, Mohammed Ali himself started to visit Fazokl, and in 1840 and following years three large expeditions were organized. Although gold was not found in any important quantities, the provinces were reduced under Egyptian sway, the navigation of the White Nile was declared free, military stations were established on both rivers, and many slaves were brought back to swell the ranks of Mohammed's army. Whatever may have been his dreams of civilization, the result of Mohammed's expedition and consequent government was to establish at Khartûm, not only the capital of the Sûdan provinces, but also a central mart for a huge slave trade.

Khartûm
established.

Provinces
annexed.

The provinces thus annexed were Kordofân, Sennâr, and Tâka.

Abbas Pasha,
1849—1854.

Abbas Pasha, grandson of Mohammed, who ruled Egypt from 1849 to 1854, kept up his authority in the Sûdan provinces by means of a large force, which was necessary for the purpose of collecting taxes from a discontented population. *In 1853 the most southern Egyptian settlement was about 120 miles south of Khartûm, but in that year the first trading voyage to the Upper Nile was started by Mr. Petherick, the English Consul for the Sûdan. He was soon followed by other traders, who established posts far up country, and organized armed bands under the command of Arabs. "*It was soon found that slave hunting paid even better than ivory, and raids were made on the surrounding tribes.*"

Opening up
of Equatorial
Provinces.

Said Pasha, the successor of Abbas, found the country in a deplorable condition; exorbitant taxes, a depressed agriculture, a disordered administration openly encouraging an open slave trade.

Said Pasha
reorganizes
Government
at Khartûm,
1857.

With the resolution of organizing a better state of things, Said, in the year 1857, made a rapid tour through the provinces in question. At Berber he proclaimed the abolition of slavery, and at Khartûm he organized a new government for the five provinces then comprised in the Sûdan, i.e., Kordofan, Sennâr, Tâka, Berber, Dongola. He

* See "Colonel Gordon in Central Africa."

ordered that the excessive taxes on the lands and water-wheels (Sakiyehs) of the people should be discontinued, and postal services on dromedaries organized across the desert. About the year 1860 the European traders sold their stations to their Arab agents, who paid rental to the Egyptian Government, and the misery and ruin were increased tenfold.

To Said Pasha also is due the first idea for making a railway to unite the Sûdan with Lower Egypt; Mongel Bey was ordered to report on the subject, but the probable expense caused the project to be abandoned. Railway proposed.

For long the sources of the Nile had been the object of much speculation, but comparatively little had been done to solve the question. Towards the latter end of the 18th century, Bruce had tracked the Blue Nile to its origin in the Abyssinian mountains, but the White Nile remained unexplored till Speke and Grant, carrying out an expedition organized by the English Government, discovered the Victoria Nyanza. Expedition to discover sources of Nile.

In 1861, Sir Samuel Baker started on an expedition from Cairo *vid* Khartûm, with hopes of meeting the travellers in question, and of making independent investigations on his own account. He was successful in both ways, and his explorations resulted in the discovery, in 1864, of Albert Nyanza Lake. His description of the Sûdan at this period, under the governorship of a certain Mûsa Pasha, gives a melancholy idea of the results of Egyptian rule. He describes the provinces as utterly ruined, only governed by military force, the revenue unequal to the expenditure, and the country paralysed by excessive taxation; shut in by deserts, all communication with the outer world was most difficult; and the existing conditions rendered these countries so worthless to the State, that their annexation could only be accounted for by the fruits of the slave trade. Sir S. Baker's expedition in 1861.

On Ismail Pasha coming to the throne in 1863, orders for the suppression of the slave trade were issued, and on Baker's return journey in 1865, he found an Egyptian camp of 1000 men established at Fashoda in the Shillûk country for the purpose. State of the Sûdan in 1864.

In 1865-6, the Khedive again brought forward the scheme for a Sûdan railway, and a study of the country from Assuan to Khartûm was made by Mr. Walker and Mr. Bray, but nothing came of it. About the same time Mr. Hawkshaw recommended the canalization of the 1st Cataract, but this was strongly opposed by Mr. Fowler, who proposed, as an alternative, to construct a ship incline over land, using the mechanical force supplied by the descending water. Ismail Pasha, 1863.

Occupation of Fashoda.

Scheme for railway again brought forward, 1865-66.

Ismail Pasha determines to put down the slave trade.

Ismail Pasha not only determined to extend his territories, but seemed in earnest to put down the slave trade.

Description of how the trade was carried on.

The traders were chiefly Arab subjects of the Khedive, and the traffic was being carried on under the cloak of legitimate commerce. Khartûm was the headquarters for the trading companies, who leased from the Governor-General of the Sûdan certain districts, nominally for carrying on the ivory trade, for which they bought the monopoly. In these transactions the Government did not hesitate to lease territories over which they had not a vestige of right; in fact, any portion of Central Africa south of Khartûm was considered open to them for selling the monopoly. The result was that certain traders established themselves in, and claimed a sort of proprietary right to large districts, especially in that part of Central Africa which lies to the south of Darfur and Kordofan, and borders the course of the White Nile. Traffic in slaves was the real business carried on, and for this purpose the traders organized armies of brigands, and formed chains of stations, of about 300 men each, throughout their districts. Raids were made on native tribes, who were obliged to submit, fly the country, or ally themselves to the slave hunters, to be used against other tribes; and anarchy prevailed throughout the country.

Khedive employs Baker.

1869.

In order to carry out the reforms, it was necessary to annex the Nile Basin, to establish a sound government and commerce, and to open the Equatorial lakes to steam navigation. The Khedive issued a firman to Baker Pasha on 1st April, 1869, whereby he gave him absolute and supreme power over all the country south of Gondokoro.

Baker left Suez for Suâkin in December 1860, and proceeded to Khartûm, where the expedition was fitted out. He experienced much opposition from Egyptian officials, who were all more or less implicated in the slave trade. He also made the discovery that the very provinces he was about to annex, were already leased by the Governor-General of the Sûdan to a notorious slave trader named Achmet Sheikh Agad, whose son-in-law and partner, Abu Saud, was a still more notorious character.

Expedition to Bahr el-Ghazal.

Another expedition was being fitted out at the same time, to Bahr el-Ghazal, for the purpose of establishing a settlement at some copper mines on the frontier of Darfur.

Annexation of Gondokoro, May 26th, 1871.

In February, 1870, Baker left Khartûm, and after, with great difficulty, exploring the navigation of the White Nile, arrived at Gondokoro, and formally annexed this station on May 26th, 1871. In January, 1872, he left

Gondokoro for the south, and on the 14th May of the same year, at Masindi, proclaimed Unyoro an Egyptian province. He organized military posts such as Massindi, Foweira, Fatiko, &c., and entered on friendly terms with M'tésé, the King of Uganda, thus establishing the Khedive's rule to within 2° of the Equator. He gave the slave trade a heavy blow by putting a stop to it in the annexed territory, as well as on the Nile, so that all exit for the traffic in the direction of Khartûm would have been closed if the Egyptian officials could have been trusted.

Unyoro
annexed,
14th May,
1872.
M'tésé,
King of
Uganda.

In August, 1873, Baker returned to Cairo, and the Khedive put the Government of the Sûdan on a fresh footing, by dividing it into provinces under responsible governors, more or less independent of the Governor of Khartûm. Thus Jusef Effendi was made Governor of Fashoda, Ismail Yacub Pasha of Khartûm, and Hussein Kalifa of Berber.

Baker
returns to
Cairo,
August,
1873.
Government
of Sûdan
placed on
new footing.

In 1871 the railway scheme was again taken up; Mr. Fowler was employed by the Khedive to make careful surveys, and the result was an elaborately prepared project for making a line from Wady Halfa *via* Shendy to Khartûm, with a plan for the passage of the 1st Cataract. Such a line would be of vast importance in opening up the trade of Central Africa. At present the transport of goods from Khartûm to Cairo involves five changes.

1871. Rail-
way scheme
again taken
up, careful
surveys
made.

At the close of Sir Samuel Baker's Expedition, the Khedive, still anxious to consolidate his Empire, appointed Colonel Gordon, R.E., to carry on the work. Gordon arrived in Cairo early in 1874, and left for the scenes of his future operations on 21st February. His appointed task was to continue the reconnaissance of the Upper Nile, to establish a Government, and to destroy the slave trade. Accompanying him were Lieut.-Colonel Long an American Officer in the service of the Khedive, Lieut. Hassan Wussif, and a number of European civil employés. It was arranged that the territory over which the Governor-General of the Sûdan now ruled was to be limited to the south by Fashoda; Gordon to be Governor-General of the Equatorial provinces of the Nile; and the respective headquarters to be at Khartûm and Gondokoro.

1874. Colonel
Gordon
appointed
Governor of
Equatorial
Provinces.

Gordon left Khartûm in March 1874, and reached Gondokoro the 15th of the following month, where he was cordially received by the Commandant Raouf Bey. He found that the provinces in question were merely nominally under Egyptian control, there being but two garrisons, one at Gondokoro consisting of 450 men, 150 of whom were Egyptian soldiers, and a second at Fatiko of 200 Sûdan soldiers. His first steps were to occupy Bohr, an important

Colonel Long goes on mission to M'tésé. Slave stations broken up, 1874.

position north of Gondokoro, and to send Colonel Long on an expedition to M'tésé king of Uganda. He then in June, 1874, proceeded to break up three large slave trading stations on the Bahr el-Zeraf, and established a strong post at Sobat, in such a position as to be able to arrest all illegal traffic on the river. The liberated slaves he, according to their own option, planted at Sobat, and encouraged them to turn their attention to agriculture; it being one of his ideas that most of the wars between tribes was caused by the great deficiency of food.

During the summer of 1874, Colonel Raouf Bey returned to Cairo, and was given the command of the Harrar country.* Gordon sent Gessi about the same time to make an inspection along the Bahr el-Ghazal.

Abu Saoud.

Abu Saoud, notorious in Baker's time, had accompanied Gordon from Cairo. The latter, though aware of his character, knew him to be a man of great influence among the slave dealing communities, and determined to turn him to account. On first taking over the Government at Gondokoro he made Abu Saoud his lieutenant, and employed many of the other slave dealers under him. This, however, was of short duration; Abu soon got beyond himself, and showing his true character, was speedily dismissed by Gordon; while, towards the end of the year, a clean sweep was made of all the other slave dealing Dongolese, whose intrigues had seriously hampered Long's Expedition.

Abu Saoud dismissed.

September, 1874. Submission of chiefs round Gondokoro.

On 11th September 1874 25 chiefs of the tribes round Gondokoro came in to pay homage to Gordon, a remarkable proof of the success of his rule, as, up to this, they had been at open enmity with the garrisons.

In October Colonel Ussuf Bey, Governor of Fashoda, intercepted a convoy of 1,600 slaves and 190 head of cattle from the stations of Ratatz and Kutchuk Ali on the Bahr Zeraf.

Preparations for sending steamers to Equatorial lakes.

About this time Gordon was making preparations for his expedition to the lakes. The sections of the steamers, which had been left at Gondokoro by Baker, were sent forward by carriers, to be put together at the Falls of Dufli, beyond which point there is a free passage to the lake Albert Nyanza.

Fortified posts.

Fortified posts were determined on for the following stations: Laboreh, Dufli, Fatiko, and Foweira, rendered necessary by the hostile attitude shown towards Colonel Long's Expedition by the King of Unyoro backed up by slave traders.

1874. Representative sent to M'tésé.

In consequence of the report of Colonel Long, who returned in October, Gordon arranged to send a trustworthy

* See page 17.

representative* to M'tésé, King of Uganda, who had shown himself to be friendly disposed.

On the 21st November Gondokoro was abandoned as the headquarters in favour of Lado, a more healthy spot, a few miles down the river; while another post was established at Regaf, a short distance up the river. Gondokoro abandoned in favour of Lado.

At the close of the year 1874 Gordon reported the organization of governmental districts along the whole line of his provinces. The chief stations being the following :— Stations organized by Gordon.

- (1.) *Sobat station*, at the junction of the Sobat river with the Nile; garrison 50 Sûdan regulars.
- (2.) *Nasr station* in the Sobat; garrison 100 Dongolese irregulars.
- (3.) *Rabatchambé station* (Shambéh), 30 Sûdan regulars, 150 Dongolese irregulars.
- (4.) *Makraka station*, 20 Sûdan regulars, 150 Dongolese irregulars.
- (5.) *Bohr station*, 10 Sûdan regulars, 150 Dongolese irregulars.
- (6.) *Latuka station*, 10 Sûdan regulars, 100 Dongolese irregulars.
- (7.) *Lado. Headquarters*, 180 Sûdan regulars, 50 Egyptian regulars.
- (8.) *Regaf station*, 80 Sûdan regulars.
- (9.) *Dufli station* (Ibrahimieh), 10 Sûdan regulars.
- (10.) *Fatiko station*, 250 Sûdan regulars, 100 Egyptian regulars.
- (11.) *Fonseira station*, 100 Sûdan regulars, 100 Egyptian regulars.

The results of the nine months' work are summed up by the Egyptian General Staff,† and the following is a brief statement of them :— Results of nine months' work.

1st. The White Nile had been mapped with very considerable accuracy from Khartum to Regaf.

2nd. The slave trade on the White Nile had received a deadly blow.

3rd. Confidence and peace had been restored among the tribes round Gondokoro, who now freely brought in their beef, corn, and ivory for sale.

4th. The work of opening a water communication between Gondokoro and the lakes had been seriously commenced.

5th. Communications had been established with M'tésé,

* Dr. Emin Bey.

† "Provinces of the Equator," published by the Egyptian General Staff.

and the connection of Lake Victoria with Lake Albert by way of the Victoria Nile shown to exist.

6th. Government districts had been formed, and secure posts established with communication between them.

7th. New expeditions were organized and ready to commence.

CONQUEST OF DARFUR.

Conquest of
Darfur,
1874.

During the year 1874 an important addition was made to the Egyptian possessions in the shape of the Province of Darfur.

Gordon writes : " Dar For and Dar Fertit mean *the land of the Fors* and *the land of the Fertits*. The Fors and the Fertits were the original negro inhabitants ; then came in the Bedouin tribes, partially conquered the country, and made the Fors Mussulmans, giving them a Sultan. The Fors and the Bedouins Tribes, the one stationary, and the other nomadic, live in peace, for their habits are different."

Sketch of
history of
Darfur.

The country of Darfur had never been subjugated, but had been governed by its own Sultans in unbroken succession for more than 400 years. The inhabitants were not of the true negro type, and the numerous wandering Arab tribes paid tribute to the Sultan, and formed the bulk of his fighting men. Darfur enjoyed a celebrity not only as a centre of commerce, but also as a large slave depôt, a fact which appears from the following correspondence which passed between Bonaparte and Sultan Abd-el-Rahman, surnamed "The Just." During the French Expedition to Egypt, "The Just" wrote to Bonaparte "In the name of God the compassionate, the merciful," to say he was glad to hear that he had conquered the Mamelukes. The reply was as follows :—

"Au Sultan du Darfour, 12 Messidor, au VII, au nom de Dieu, clément et miséricordieux, il n'y a d'autre Dieu que Dieu ! au Sultan du Dâr-fur Abd-el-Rahmân.

"J'ai reçu votre lettre : j'en ai compris le contenu ; lorsque votre karavane est arrivé j'étais absent ayant été en Syrie pour punir et détruire nos ennemis. Je vous prie de m'envoyer par la première karavane 2,000 esclaves noirs ayant plus de 16 ans, forts et vigoureux : je les achèterai pour mon compte. Ordonnez votre karavane de venir de suite, de ne pas s'arrêter en route : je donne les ordres pour qu'elle soit protégée partout."

"Le Général-en-Chef BONAPARTE."

Dating from the days of Mohammed Ali's expeditions, Darfur was in constant dread of Egyptian aggression, and the country was practically closed to all Europeans, who

were regarded as spies. For many generations Darfur had sent annually a caravan containing ivory, feathers, gum, slaves, &c., to Egypt, bringing back in exchange cloth, beads, firearms, &c. In 1874 the slave trade having been stopped in Egyptian territory, the Governor of the Sûdan seized all the slaves belonging to the caravan of that year; this was one of the causes which led to a rupture with the Sultan of Darfur.

Origin of quarrel.

Slave trade.

In 1869 the power of the slave dealers in the Bahr Ghazal had become so great, that they refused to pay their rentals to the Egyptian Government. Conspicuous among them was a certain Sebehr Rahama, who, according to Dr. Schweinfurth, lived in princely style and was regarded as a kind of king.

Sebehr.

With the object of re-establishing his authority in the Bahr Ghazal provinces, and also of conquering Darfur, the Khedive sent a small force under the command of Bellal. This force was destroyed by Sebehr, who became the chief power in the country. The Sultan of Darfur, in the meantime, to meet Bellal's threatened attack, had placed an embargo on corn along his southern frontier. This incensed the slave traders, who drew their supplies from Darfur, and a further cause of quarrel was the invasion of Bahr Ghazal territory by Darfur troops in pursuit of slaves. Sebehr accordingly prepared for an invasion of the province. The Egyptian Government, seeing the danger of his acquiring fresh strength, determined upon taking the conquest into their own hands, giving out as a pretext that the repeated hostile expeditions of the Sultan had made it necessary to occupy Darfur. Two expeditions were accordingly organized—one from the north under the command of Ismail Pasha Yacub, and one from the south under Sebehr. In one of the ensuing battles the Sultan and two of his sons were killed, and Darfur fell into Egyptian hands. Sebehr was made a Pasha, but he claimed a right to be made Governor-General of the new province, and his acknowledged power was likely to make him formidable. His request, however, was refused, and though at first he intended to assert his independence, he decided to go to Cairo to push his claim, taking £100,000 to bribe the pashas. Here he was, however, detained, his son Suleiman, of whom more hereafter, meanwhile taking his place in the provinces.

Bellal's expedition to Bahr el-Ghazal destroyed by Sebehr, 1869.

Invasion of Darfur.

Sebehr claims the governorship.

Sebehr goes to Cairo.

Darfur having thus become an Egyptian province, the Khedive sent out two scientific expeditions, composed of Staff Officers and Attachés, to report on the capabilities of the country. These left Cairo on the 5th December, 1874; one under Colonel Purdy was to enter Darfur on its northern frontier, the other under Colonel Colston by

Expeditions to Darfur under Purdy, Colston, and Prout, 1874.

the east from Kordofan. The latter expedition was afterwards commanded by Major Prout, when Colston was incapacitated by sickness. Reports of these expeditions were compiled by the Egyptian General Staff.

RELATIONS WITH ABYSSINIA.

Relations
between
Egypt and
Abyssinia.

As the relations between Egypt and Abyssinia have a certain bearing on the history of the Sûdan, and in future years are likely to have a still further influence on this portion of Africa, a sketch of Abyssinian affairs is given here.

The Turks and Arabs had never yet succeeded in subjugating this country, although many attempts had been made in that direction. As far back as the 16th century, the Turks had seized the port of Zeila on the Red Sea, and in later times Suâkin and Massuah; but, though based on these ports, they could make no headway into the Abyssinian hills, or even occupy the coast provinces from Massuah to Suâkin. During the aggressions of Ismail, son of Mohammed Ali, the Egyptians and Abyssinians came into collision from Kassala to Kalabat, and the Abyssinians were gradually pushed back to the mountains as their boundary, finding themselves hemmed in on all sides by Turks, Egyptians, and the tribes of the Gallas (or Gala) country.

Massuah
transferred
to Egypt,
1866.

English
expedition,
1868.

In 1866 Turkey transferred her interest in Massuah to Egypt in consideration of an increased tribute, and in 1867 the Khedive claimed authority as far as Zula, which is situated on Annesley Bay. Early in 1868 the English expedition to Abyssinia took place, and the Khedive, wishing for the countenance of England as to his present and future encroachments on the Red Sea coast, did all in his power to assist the undertaking. Egyptian troops were offered to the British Government, though not accepted, and Kassala and Kalabat were spoken of as possible bases of operations. All this did not tend towards creating a good feeling between Egypt and Abyssinia.

When the Khedive, Ismail Pasha, was arranging his Sûdan railway scheme, he proposed to make a branch line to Massuah; this would pass through the province of Bogos.

Province
of Bogos.

The Khedive claimed that Bogos had been conquered by Mohammed Ali, though as a matter of fact since this asserted conquest the borderland only had been held by the Egyptians, whilst the Abyssinians denied that they had ever relinquished their rights to the territory. Border war had been maintained till Said Pasha, the former Khedive, had withdrawn his troops, and Bogos for many years had remained neutral in a kind of way.

In the summer of 1874 there was a certain Swiss resident at Massuah named Munziger, who acted as Consul for both England and France. Seizing the opportunity of the King of Abyssinia being at war with the Gallas, the Egyptian Government employed Munziger to occupy Keren, the capital of Bogos, with 1,500 men. About the same time they also acquired the territory of Ailat, a province lying between Hamasin and Massuah, by the treachery of the Governor, who sold it to the Khedive.

Keren,
capital of
Bogos,
occupied,
1874.

Against these acts the King appealed to Europe, and especially to England, sending as his envoy Colonel Kirkman, a Scotchman, then in the service of King Johannis, but who had formerly been with Gordon in China. This mission had no practical result, and the relations between Abyssinia and Egypt were more strained than ever.

The King
appeals to
Europe.

In 1875 the Khedive purchased from the Sultan for about £15,000 a year additional tribute, the port of Zeila, the base from which for many centuries Turk and Arab had unsuccessfully attacked Abyssinia; and in fact acquired at the same time all the Sultan's nominal rights to the coast country from near Tajurah to a point on the Indian Ocean, including Berbereh, the transfer actually taking place in autumn, 1875.

Port of Zeila
purchased
by Egypt,
1875.

ANNEXATION OF HARRAR.

The province of Harrar had also been lately annexed by an expedition under Raouf Pasha, whom it may be remembered Gordon had relieved at Gondokoro in 1874.* After the death of Ameer Ahmed, Sultan of Harrar, mentioned by the traveller Burton, the inhabitants made Khalifa Citra Ameer. He was deposed after a three days' reign by Mohammed; the latter oppressed his subjects, favouring the Galla tribes, and bullying the Mussulmans. The people asked the Khedive to take possession, and in the year 1874, Raouf Pasha being sent up for the purpose, met with little opposition. He began his government by the unnecessary act of causing the Sultan to be strangled. The Sultan's son went to Cairo to complain, but nothing was done.

Harrar
annexed,
1874.

To return to Gordon. Early in 1875 he heard reports of Kaba Rega, King of Unyoro, who, with the old slave-traders, was meditating treachery. Gordon had already cleared his province of all these traders on whom he could lay hands, but 50 of them had escaped him, and taken themselves to the chief above mentioned. Rionga, Rega's rival, now received Gordon's support.

From the experience gained it became evident to Colonel

Question of

* "Colonel Gordon in Central Africa," page 312.

communica-
tion by
Zanzibar.

Gordon that, in order to open up the Equatorial provinces, an outlet to the eastern coast must be made. The Nile was found to be impracticable as a water-way, owing to the numerous rapids, the obstruction formed by floating masses of vegetation (sudd), and the scarcity of wood. And as Gordon writes from Lado: "The only valuable parts of the country are the highlands near M'tésé, while all south of this (Lado) and Khartûm is wretched marsh."

In January, 1875, Gordon proposed to the Khedive that he should establish a station at Mombaz Bay, 250 miles north of Zanzibar, and also to take Formosa Bay, or rather a point where the Dana and Ozy debouch to the north of it. In making this proposition, he was under the impression that the Dana was navigable as far as Mount Kenia, and that Lake Baringo was connected to the Victoria Nyanza, the latter of which Stanley denies. The Khedive on his side proposed the mouth of the Juba as a base, and fitted out an expedition for the purpose of occupying it, of which more hereafter.

Transport of
steamers to
the lakes.

Gordon now set himself to transport the steamers from Lado to the lakes. The difficulties he had to contend with were very great, including the hostility of the border tribes, the obstacles to navigation, and, above all, the useless material of which the Egyptian troops were composed. The heavy parts of the steamer had to be transported separately in large Nile boats (nuggers) up to Dufli Falls, above which point and up to the lakes, the river is navigable. As he advanced, stations were established along the west bank of the river. This side was more secure from attack by natives, as the mountains came within eight miles of the banks, and limited the sphere of their operations; while on the east bank the Bari tribe were very hostile. A party under Linant, one of Gordon's officers, was here surprised and massacred.

Finances
of the
expedition.

As regards the finances of the Expedition, Gordon writes, in August, 1874:—"In a year he (the Khedive) has had £48,000 from the province, and I have spent, say, £20,000 at the outside, and have £60,000 worth of ivory here" (Mugi). In September he says that he was entirely independent of the Sûdan Government as regards supplies, and could raise them from his own resources. In this month parties were sent out to levy taxes in the shape of cattle on the hostile tribes, and this had a salutary effect in keeping them quiet.

During Gordon's absence the Shillûk tribes in the neighbourhood of Fashoda rose in rebellion against the oppression of the Government, and, had it not been for the presence of Gessi there at the time, Fashoda would pro-

bably have been lost. Gessi was an Italian adventurer of great force of character; he joined Gordon's staff in the summer of 1874, and had, during the Crimean War, acted as interpreter to British troops.

The steamer reached Laboreh in December, great difficulties having been met with in getting the boats conveying it up the rapids.

JUBA RIVER EXPEDITION.

In the autumn of 1875, the Khedive, having had for long under consideration the advantage of opening up a line of communication from the Indian Ocean to the central provinces, sent out what is known as the Juba River Expedition. The command of this was given to McKillop Pasha (an English naval officer who died in 1879), accompanied by Colonels Ward and Long, the former to survey the harbours along the coast, and the latter to command an inland expedition. Colonel Gordon was to co-operate from the direction of Victoria Nyanza.

The Juba
River
Expedition,
1875.

The anchorage at the mouth of the Juba river having been found inferior, the Expedition ran several miles further south to Port Durnford, and the harbour of Kisumayo; but here they encroached on the territory of the Sultan of Zanzibar. Several interests now clashed with the success of the enterprise. The British Government were bound more or less to the Sultan by treaties concerning the slave trade. The merchants of Zanzibar became alarmed for their equatorial trade, and the people of Aden for their supplies from the Somalis, who had been independent till Egypt had acquired a portion of their territory, and levied taxes at their ports. The result was, that at the instance of Great Britain, the Egyptian Expedition was given up, but, on the other hand, the Khedive's authority along the coast of the Red Sea up to about the 10th degree of north latitude was tacitly acknowledged. Ismail Pasha was thus encouraged to think that he was entitled to the whole of the Red Sea coast, and could resist any pretensions of the Abyssinians to a port; while England believed that she had erected a safeguard against European settlement on the coast, and had opened the way to a Slave Treaty with Egypt.

Khedive's
authority
along Red
Sea acknow-
ledged.

WAR WITH ABYSSINIA.

During the same period other important events were passing in Abyssinia. Soon after the acquisition of the Port of Zeila by the Khedive, an Egyptian force was despatched to Massuah under Colonel Arrendrup. King Johannis had lately formed a new province (Guinda) which

Abyssinia.
Arrendrup's
Expedition,
1875.

Destruction
Egyptian
Army,
November,
1875.

Second
expedition
fitted out,
December,
1875.

Defeat of the
Egyptians,
7th March,
1876.

Hamasin
territory laid
waste by
Walad el-
Mikael.

Abyssinian
envoy sent
to Cairo.

included the seaboard from the head of Annesley Bay to Amphilia Bay and the Shoho, the Port of Zula, and the district of Guinda lying south of Ailat. This he had done to ensure the port of Zula to Abyssinia, and he made Kirkman Governor of the new province, giving him the freehold for life. Kirkman accordingly had established his headquarters at Guinda, and ran up the British flag. In October, 1875, however, Arrendrup's force having landed at Massuah, proceeded to Guinda and took possession of it, and soon afterwards moved on Adua, the capital of Abyssinia. King John, however, having collected a large force, surprised and totally annihilated the Egyptian army, about the middle of November. On the news reaching Cairo another expedition on a larger scale was immediately organized, and the chief command given to Ratib Pasha, who was accompanied by Prince Hassan and several American officers in the service of the Khedive. The headquarters arrived at Massuah about the middle of December.

Owing, however, to the disorganized state of the Staff, and the difficulties of transport, the army did not get under weigh till middle of January, 1876, and, after tedious marches, it arrived at the Kaya Khor Pass, near which place it was met and defeated by King John on 7th March.

The Egyptians retired into a fort they had constructed at Kaya Khor where, during the next two days, they were assailed by the Abyssinians. On the 11th of March, however, King John withdrew his forces, and peace negotiations were entered upon. The Egyptian army commenced their march for Massuah on the 19th April.

Ratib returned to Cairo, leaving Osman Pasha in command at Massuah.

Walad el-Mikael, a former Governor of the Hamasin, and hereditary ruler of Hamasin and Bogos, who had joined the Egyptians during the campaign, now occupied himself in making a raid against the Hamasin territory, which he laid waste in all directions. He then retired into Bogos and remained for some time at the Sanhit Fort under protection of the Egyptians, who kept him as a menace to King John. The latter employed another chief, Shella-Kan-Allula, to watch him and to retaliate by ravaging the Bogos and Ailat countries. Menilek, King of Shoa, who had marched against King John, under the impression that he was worsted by the Egyptians, now returned to his own country.

The negotiations had come to an abrupt termination on account of the proceedings of Mikael, but in June, 1876, the King sent an envoy to Cairo to make an effort to have the boundary fixed, to secure certain privileges for Abys-

sinia at the port of Massuah, and to obtain an Abuna (high priest) to fill the place of one who had died ; offering at the same time the surrender of Hamasin if Walad el-Mikael was given up to him. The King's representative was retained at Cairo, on one pretext or another, till December, when he was released by the influence of the British Consul.

Early in 1876 Gordon made preparations for Gessi to proceed to Lake Albert Nyanza with two lifeboats, while he himself proceeded towards Lake Victoria. 1876.

He had now surveyed the river from Khartûm to Dufli, and from Foweira to Mruli. Gessi started in March, and succeeded in going round the lake in nine days, finding it to be only 140 miles long and 50 miles wide. The natives showed themselves hostile, and the west coast was inaccessible. Gessi navigates Lake Albert Nyanza, 1876.

In January Gordon had given up all idea of forming an expedition to meet that proposed from the Juba river ; his reasons were that his troops were utterly untrustworthy and unfitted for such a task.

In July the steamer was at length put together above the Dufli Falls, and the passage clear from thence to the Albert Lake.

A Treaty was made with M'tésé recognizing his independence, and Dr. Emin Effendi, a German by extraction, was sent to him as Gordon's representative. Treaty with M'tésé.

In October Gordon left for Khartûm and for England, having handed over the government of his province to Colonel Prout. He had, during the three years, successfully checked the slave trade in the Equatorial provinces, and established the basis of a sound government, if such a thing could be found under Egyptian rule. That he could not entirely suppress the slave trade was due to its huge ramifications, the despicable quality of his troops, and the resistance offered to all his endeavours by the Government of the Sûdan under Ismail Pasha Yacub. Gordon leaves for England, October, 1876.

In February, 1877, Gordon, under pressure, returned to Egypt, and the Khedive made him Governor-General of the Sûdan, uniting, in one great province, the Sûdan, the Equatorial provinces, and the Red Sea provinces ; thus giving him a district some 1,640 miles in length by an average of 660 in breadth, with three Vakils (deputy Governors) for Sûdan proper, Darfur, and the Red Sea provinces. The Khedive drew his attention specially to the suppression of the slave trade and the improvement of the communications, and gave him powers to negotiate with Abyssinia in order to end the disputes with King John. Gordon returns to Egypt, January, 1877.

Gordon at once proceeded, *via* Massuah, to the Abys- Gordon goes

to Abyssinia, 1877. sinian frontier to make a treaty, if possible, with the King. He found that there was no hopes of bringing the matter to a satisfactory result till a stop was put to the raids of Walad el-Mikael. Just now a large portion of Gordon's troops were withdrawn to support Turkey in her war with Russia; and it was useless for him to think of using force against Mikael, while the news of a serious revolt in Darfur required his presence elsewhere. He therefore agreed to supply Walad el-Mikael with money and provisions, on condition that he gave up his attacks on Abyssinia. King John taking advantage of this temporary respite, proceeded to attack Menilek, King of Shoa.

Arrange-
ments with
Mikael.

Gordon having visited Bogos, Kassala, Katarif, and Sennâr, proceeded to Khartûm; here he spent some time in carrying out reforms, among others in giving back to the Ulemas their ancient privileges of which they had been deprived by the late Governor Ismail Pasha Yacûb. In May, however, he found himself obliged to start for Darfur.

Disturbances
in Darfur.

Harûn, a relative of the late Sultan of Darfur and a claimant to the throne, took advantage of the discontent caused by the misgovernment of the province to raise a revolt in February, 1877. He had a very large number of men with him, as the Beduin tribes, who had not helped the Sultan when Darfur was conquered in 1874, now joined his standard.

1877.

These tribes were semi-independent under their own Sheikhs, and each of them could put from 2,000 to 6,000 horse or camel-men into the field. They were largely engaged in the slave trade, making raids on the negro tribes to the south, or buying slaves from other Beduin tribes who lived out of range to the west. Though the traffic of the large slave caravans had ceased, yet there was still an extensive trade carried on by small dealers, that was impossible to put down.

The Governor of Darfur at this time was Hassan Pasha Helmi, who did not appear to be of any energy, as up to May he had failed to render assistance to the stations of Fasher, Darra, Kolkol, and Kakabieh, where the followers of Harûn had hemmed in the Egyptian garrisons. A force had, it is true, been sent from Foga for the purpose, but seemed unable to accomplish the task.

Egyptian
garrisons
hemmed in.

Gordon
arrives in
Darfur,
June, 1877.

Threatening
attitude of
Suleiman,
son of
Sebehr.

Gordon arrived himself at Foga on the 7th June, having dismissed, before his departure from Khartûm, Halid Pasha, who had been sent to him as second in command.

In addition to the revolt in Darfur, Suleiman, son of Sebehr, was now at the head of the slave dealers to the south, and, having a large force at his command, was holding a threatening attitude. Shakka was his headquarters,

and the nest of the slave trade in that part. Gordon, considering the country was scarcely worth keeping, determined to call in all the outlying stations of Darfur, and merely maintain garrisons along the trunk road through Fasher. Harûn was at Tanné, and Gordon intended to move against him with the force at his disposal, reinforced by the garrisons of Towaisha, Darra, and Kadjmur, in all about 3,000 men. In July he was at Darra, and Harûn retreated to Tura, from where he ravaged the country to the north, but, seeing Gordon was too strong for him, disappeared for the time.

Gordon was at Fasher in August, but soon after left for Darra, where he heard that the slave dealers were gathering in force. Here he meets Suleiman and orders him to lay down his arms; after some hesitation Suleiman leaves a large number of his men with Gordon and goes back to Shakka; to this place Gordon followed him about the middle of September, sent him to Bahr Ghazal, while the other chiefs he dismissed to various places. The slave trade was thus broken up for the time being in this direction, and very large numbers of slaves had been liberated. There were, however, upwards of 4,000 more slave hunters to be dealt with in the Bahr Ghazal, but Edrees the chief of these was friendly to Gordon.

Gordon now returned to Khartûm, viâ Obeiyad, and proceeded immediately to Bogos, where he heard that Mikael had returned to his old ways. In March Gordon had proposed to King Johannis that Egypt should retain Bogos, but be answerable for the conduct of Mikael. Now, however, seeing that the latter was not to be trusted, he proposed to King Johannis to unite in seizing and sending him to Cairo. To this Gordon received no answer, and Mikael continued in the same way for some time longer.

On December 26th Gordon writes:—"I am now waiting for a letter from Ras Barion the frontier General . . . I want to get Johannis to give a pardon to Walad el-Mikael's men, in order that, if I have to attack them, I may be able to give them the chance of getting away. If I attack them now, with Abyssinia closed to them, they would fight desperately."

At the end of the year Gordon, getting no satisfaction, returned to Khartûm by Suâkin and Berber, and, having paid a visit to Cairo, again started for the Red Sea provinces. Having touched at Zeila, he went on in April, 1878, to Harrar. Here he found Raouf the Governor had been guilty, not only of oppression, but also of illegal trading on his own account, and immediately dismissed him.

Fresh trouble now arose on the Abyssinian frontier. In

Meeting
with Sulei-
man,
August,
1877.

Gordon
returns to
Bogos.
Mikael again
giving
trouble,
1877.

Visit of

Gordon to
Harrar, and
dismissal of
Raouf
Pasha, the
Governor,
April, 1878.

Mikael
attacks
Abyssinia,
and finally
makes peace.

March Walad el-Mikael attacked, defeated, and killed Johannis' general, Ras Barion, and got possession of Gordon's letters, which revealed his real sentiments. Mikael had been enabled to make this raid by the assistance rendered to him by Osman Pasha, Gordon's "Vakti," who supplied him with ammunition, and in addition received a congratulatory letter from the Khedive's Minister of War, urging him to press on his conquest. However, he did not follow this advice, and before long came to terms with the King, and all seemed quiet for a time, though further troubles were soon to crop up.

In July, 1878, Gordon heard of the revolt of Suleiman, Sebehr's son, and dispatched an expedition under Gessi to put it down. The history of Gessi's campaign will be narrated later on.

Railway
scheme.

The railway scheme at this time took up the Governor-General's attention. He considered that the natural outlet for the Sûdan trade was from Berber to Suâkin, and that the railway idea was visionary. Under Ismail Pasha the work had been commenced, but had come to a standstill in 1877, after an expenditure of some £450,000, and the completion of about 50 miles of line from Wady Halfa southward. Gordon's proposal was to utilize the river where navigable, for small steamers, and to lay tramways in the intervening spaces. The Controllers, however, did not take up his scheme, and the other affairs of his Government prevented him giving further attention to the subject.

At this time the operations for stopping the slave trade were in active progress, as shown by the fact that within two months 14 caravans had been taken.

Towards the end of 1878 the Khedive determined to take the Harrar and Zeila districts out of Gordon's control.

1878.

In December Walad el-Mikael started to make his submission to King Johannis, and the latter entered into further negotiations with Gordon about the frontier.

King's de-
mand for an
Abuna.

One of the King's demands was for an Abuna, or Archbishop. An Abuna was always obtained from the Coptic Church at Alexandria, and was the only person in Abyssinia who could ordain priests.

Gordon had some difficulty just now as to what to do with 1,300 slave soldiers who had remained faithful to the Government, and finally decided on sending them under Nuehr Bey Angara, their chief, accompanied by two Europeans, to a zone of country between Wadai and Darfur. These soldiers had been originally kidnapped by Sebehr and trained to arms.

Though Gordon had pointed out that the destruction of

Sebehr's gang was the turning point in the slave trade question, he could get no assistance from Cairo.

On August 4th, 1877, a Convention had been concluded between Great Britain and Egypt, by which all public traffic in slaves was at once prohibited, while the private trade in Egypt was to be suppressed in 1884, and in the Sûdan in 1889. Although it was well known that Sebehr was mainly responsible for the slave trade of the past 10 years, yet he was now at Cairo being treated as an honoured guest, and Nubar Pasha even offered to send him to assist Gordon. The latter, however, declined the offer, and occupied himself by putting European Vakils into all the frontier posts.

The slave convention of August 4th, 1877.

In March, 1879, Gordon set out for Kordofan. Not only was the revolt in full swing in Bahr el-Ghazal, but there were also risings in Darfur and Kordofan. In the former Harûn had once more appeared on the scene, and in the latter the insurgents were led by Sabahi, formerly one of Sebehr's chiefs, who had taken to slave dealing on his own account, had murdered the governor Gordon left at Edowa, and gone to the hills, where the Egyptian troops under Hassan Pasha Helmi were making no efforts to attack him.

Gordon starts for Kordofan, March, 1879. Revolt in Bahr el-Ghazal, and risings in Darfur and Kordofan.

Gordon's reasons for undertaking his present expeditions were to help Gessi, to prevent partisans of Sebehr in Kordofan sending up aid to the slave dealers, to cut off run-aways, and to prevent Sebehr's bands breaking into Darfur, and joining Harûn. At the end of March he went to Edowa, from which station Sabahi with 400 men was only four days distant. Many captures of slave caravans now took place, the total number captured since June, 1878, being 63. Shakka was reached on 7th April, where a message was received from Gessi asking for more troops and ammunition. Gordon now decided that it would be the wisest thing to reinstate the Sultan's family in Darfur, in the shape of the son of Sultan Ibrahim, and telegraphed to the Khedive to send him down, as, at that time, he was kept at Cairo. In December, 1877, Gordon had found, imprisoned at Suâkin, an ex-Vizier of Darfur; he had liberated him and sent him back to the province. Now he appointed him Regent until the son of the deceased Sultan arrived from Cairo, and wrote to Harûn pointing out the uselessness of his further opposition, and inviting him to come in and assist to establish the new Sultan. In a letter written at this time he makes the following observation. "If the liberation of slaves takes place in 1884 [in Egypt proper], and the present system of Government goes on, there cannot fail to be a revolt of the whole country It is rather amusing to think that

Gordon decides on reinstating Sultan's family in Darfur.

the people of Cairo are quite oblivious that in 1884 their revenue will fall to one-half, and that the country will need more troops to keep it quiet. Seven-eighths of the population of the Sûdan are slaves, and the loss of revenue in 1889 (the date fixed for the liberation of the slaves in Egypt's outlying territories) will be more than two-thirds, if it is ever carried out."

Gordon leaving Shakka in April, went by Kalaka, Darra, Fasher, to Kolkol, which he reached on 26th May; here he relieved the garrison, and started for Fasher. At the latter place he heard from Gessi of the capture of Suleiman's stronghold, and was about to start for Khartûm, when learning that a force of Sebehr's men was *en route* for Darfur, he returned to Towaisha, where, on June 25th, he met Gessi, who informed him that the last of the rebel bands had been crushed. Leaving Gessi to follow up Suleiman, Gordon now left for Khartûm.

Gordon
meets Gessi,
June 25th,
1879.

GESSI'S CAMPAIGN.*

Gessi's
campaign.
Revolt
instigated by
Sebehr, 1878.

Before Sebehr had left for Cairo to push his claims to the Governorship of Darfur, he had made his officers swear, that if, during his absence, he sent them word to attend to the arrangements he had made under a certain tree, then they were to revolt. He accordingly did send them orders after finding his claims were not attended to. The extent of the insurrection was much larger than generally supposed; the chief slave dealers had apportioned out in their plans the provinces of the Sûdan among themselves, and even gave out that they would not stop short of Cairo. They were backed up by numerous Arab tribes, and were powerful enough to tax the whole strength of Egypt. It was from the Arabs that most of the slave hunters were drawn, and they looked with scorn and hatred on the Egyptian rule.

Colonel Gordon wrote: "There is no doubt that if the Governments of France and England do not pay more attention to the Sûdan—if they do not establish at Khartûm a branch of the mixed tribunals, and see that justice is done, the disruption of the Sûdan from Cairo is only a question of time. This disruption, moreover, will not end the troubles, for the Sûdanese, through their allies in Lower Egypt—the black soldiers I mean—will carry on their efforts in Cairo itself. Now these black soldiers are the only troops in the Egyptian service worth anything."

July, 1878,
expedition

In July, 1878, Gordon hearing that the son of Sebehr

* "Colonel Gordon in Central Africa," p. 371.

(Suleiman) had seized the province of Bahr Ghazal, at once sent up an expedition commanded by Gessi. organized by Gessi.

Gessi started up the river, and on his way met with many slave nuggars, and even Government steamers, plying the slave trade under the eyes and with the connivance of the Egyptian Vakils. He first went to Rabat Chambé (Shambeli) to collect reinforcements, and then struck off in the direction of Rumbek on the River Rohl. His march was greatly impeded by the floods, and it was not till the first week in September that he reached the above-named place. Here he heard of the open revolt of Suleiman, who had surprised and massacred the troops at Dem Idris, and was laying the country waste in all directions. The Arabs now began to join Suleiman in large numbers, and his army soon numbered about 6,000 men. Gessi in the meantime had but 300 regulars, 2 guns, and 700 irregular troops; his communication with Khartûm was almost closed by the "sudd" in the river, which also, in addition to the rains, caused the whole surrounding country to be under water, and made marching impossible. He accordingly fortified himself at Rumbek till November. He occupied the time in regenerating the province which he found labouring under gross abuses and a staff of corrupt officials.

Massacre at Dem Idris.

Delays caused by the "sudd" and rains.

He was at length able to leave Rumbek on the 17th November, and after having met with some hostility from the natives on the River Dyur, he arrived at the Waw on 5th December, where he established a station. He found Suleiman had carried off upwards of 10,000 women and children, and the inhabitants about Waw were in great excitement against the slave dealers. Having received reinforcements, and been joined by a friendly Sheikh, Gessi marched for Dem Idris, which he reached about the middle of December. Suleiman was on his way towards Shakka, thinking himself protected by the floods from an attack from the south, but hearing of Gessi's arrival at Rumbek, he at once turned to attack him with 10,000 men. The attack took place on the 28th December, but was driven back with great loss after severe fighting. On 12th January, 1879, Suleiman having been reinforced, again assaulted Gessi's post, and after two days' heavy fighting was again driven back. Gessi in the meantime was running very short of ammunition, but in spite of this repulsed a third attack on the 28th and 29th of January. On 11th March having received some ammunition, he attacked the stronghold of Suleiman, which was constructed of wooden huts and barricades made of trunks of trees. Having set fire to the whole by means of rockets, he met and utterly routed the brigands as they sallied out, November, 1879.

Suleiman attacks Gessi, 28th December, 1879.

Second attack, 12th January, 1879.

Third attack, 28th and 29th Jan., 1879.

Gessi attacks Suleiman, 11th March.

The brigands routed.

but had not sufficient ammunition to pursue them. By the beginning of February Gessi had cleared off many of the slave dealers, and had liberated more than 10,000 of their captives; the result being, that confidence was being rapidly restored, and the headmen of tribes were giving their allegiance to the Government.

Dem Sulei-
man taken
by Gessi,
4th May,
1880.

On 1st May, Gessi, having received further reinforcements, marched on Dem Suleiman, which he took by assault three days later, capturing much booty. Suleiman himself escaped, and took refuge in a village some distance off. On the 9th May, Gessi, with 600 men, started in pursuit, and after nine days' absence returned to Dem Suleiman in triumph, having taken many of the slave dealers, although Suleiman, with Rabi and Sultan Idris, two noted leaders, had escaped.

Suleiman
captured,
15th July,
1880.
Suleiman
shot.

Though much had been done, the revolt was not, as Gessi thought, completely crushed, and in a few weeks, hearing that Suleiman was meditating a junction with Harûn, he at once went again in pursuit. On the night of the 15th July he surprised the enemy, and although he had only 290 men to their 700, he contrived to conceal the fact, and induced Suleiman to lay down his arms. Fearing that, by plotting with the rebel Abdulgassin, who was at no great distance, the prisoners might escape, he shot the 11 ringleaders, including Suleiman, and dismissed their men to their new countries. Gessi had now broken the neck of the revolt, and, aided by the tribes whose families he had freed from slavery, he hunted down the remaining bands. Abdulgassin was caught and shot, and only Rabi escaped, nobody knew where.

Gordon con-
fers with
Tewfik.

In August, Gordon arrived at Cairo, and conferred with the new Khedive Tewfik on affairs in Abyssinia. Walad el-Mikael and Johannis' general Alula were now plotting a joint attack on Bogos, and Gordon's proposal that he should at once go and endeavour to settle matters with the King, was eagerly accepted by the Khedive.

Gordon goes
to Abyssinia,
1879.

He landed at Massuah on 6th September, 1879, and finding that Bogos was practically in the hands of the Abyssinians, started on the 11th to meet Alula. The next day he heard that Alula, by the King's order, had made a prisoner of Walad el-Mikael and all his officers, and that Mikael's son had been killed. On the 16th, Gordon reached Gura, the rendezvous, and, at an interview with Alula, requested him to state the complaints of Abyssinia against Egypt. Alula, on the 18th, replied that he had better see the King himself, and Gordon accordingly left the following day for Debra Tabor, near Gondar. He arrived there on the 27th October. On the

28th October, the King stated his claims as follows : *
 " You want peace ; well, I want retrocession of Mesemma, Changallas, and Bogos, cession of Zeila and Amphilla (ports), an Abuna, and a sum of money from one to two millions pounds ; or, if his Highness likes better than paying money, then I will take Bogos, Massuah, and the Abuna. I could claim Dongola, Berber, Nubia, and Sennâr, but will not do so. Also I want certain territory near Harrar." Gordon asked him to put these demands in writing, and give the Khedive six months for reply. But the King would give no satisfactory answer. On the 6th November there was another interview. The King had evidently been put up to his first demands by the Greek Consul at Suez, who was with him at the time, and now neither liked to withdraw his demands, nor to put them in writing. After some further delays the King at length gave Gordon a letter and let him go, which he accordingly did, and started for Kalabat intending to go to Khartûm. Before reaching Kalabat, however, the King had him arrested and brought back through Abyssinia. He reached Massuah, after much privation, on 8th December, and then ended his connection with the Sûdan and Abyssinia.

The King's
claims.

Gordon dis-
missed by
King.

Gordon
arrested on
his way to
Khartûm.

Shortly before his departure he had given up the district Unyoro, and the stations of Mruli, Kodj, Foweira, Keroto, and Magunga were accordingly evacuated by Egyptian troops. Massindi and Kissima had been given up two years before. The Victoria Nile was now the boundary of the Khedive's territory, and new stations were formed to defend it, whilst the province of Makraka was also incorporated. Dr. Emin Bey had been made Governor of the Equatorial provinces, with his headquarters at Lado, and under him were the three Mudirs of Makaraka, Kerrie, and Magunga. Many improvements had been made in these provinces, and Lado was greatly increased in size and importance.

The district
of Unyoro,
in the
Equatorial
provinces,
given up.
Egypt's
frontier, the
Victoria
Nile.

Raouf Pasha was Gordon's successor at Khartûm, while a second Pasha was given the Government of Massuah and the adjacent coast, and a third was appointed to Berbereh, Zeila, and the Harrar district. As Gordon pointed out to the Khedive, King Johannis was much too occupied with internal affairs to be able to give further trouble on the border for the present ; but in the summer of 1880 the Somalis revolted, and Egyptian troops had to be sent to aid the Governor of Harrar.

Gessi, as Governor of Bahr el-Ghazal, was most successful ; he had completely stamped out the slave trade, done

* " Colonel Gordon in Central Africa," page 412.

much to encourage agriculture, and revived to a great extent the ivory trade.

On the departure of Gordon, however, and in the absence of a strong central government, the slave dealers again showed themselves in other parts, and before long, slave caravans were again on their road to Lower Egypt and the ports of the Red Sea.

Railway
scheme
again enter-
tained, 1880.

Early in 1880 the railway scheme again seems to have occupied the attention of the Khedive, who visited the Sûdan at that time, and expressed himself strongly in favour of a line from Berber to Suâkin.

Gessi
resigns.
Lupton Bey
succeeds
him.

Gessi's
death, 30th
April, 1881.

In September, 1880, Gessi, finding his position intolerable under Raouf Pasha, Governor-General of the Sûdan, resigned his post, and, after having suffered great hardships on the way, on account of the steamers being stopped by the "sudd," he at last reached Khartûm; meeting with a cold reception there, he managed to get to Suez, where he soon after died, 30th April, 1881, from the effects of the suffering he had endured. Lupton Bey, an Englishman, succeeded him in the governorship of Bahr Ghazal.

In April, 1882, the Sûdan was reorganized on paper, and was to be again under one Governor-General with four subordinate governors for the West Sûdan, Central Sûdan, East Sûdan, and province of Harrar. Schools and seats of justice were to be established, and special arrangements to be made for the suppression of the slave trade.

INSURRECTION OF FALSE PROPHET.

The next great cause of disturbance in the Sûdan was the appearance of the False Prophet.

For many years the creed of Mohammed has been making immense strides in Central Africa, where it seems to have a peculiar fascination for the native races; and high authorities estimate the number of converts to this religion at from eight to twelve millions. The idea of the regeneration of Islam by force of arms has gained a strong hold over the enthusiasm of these new converts, and on the appearance of the False Prophet in August, 1881, thousands flocked to his standard.

Biography
of the Mahdi.

The person in question is a Sheikh named Mohammed Ahmed, the son of a carpenter, and a native of Dongola. He was born about the year 1846, and educated in a village near Khartûm, where he studied religion. In 1870 he became a Sheikh, and, after a short stay at Kaka, near Fashoda, he finally took up his residence at the Island of Abba. Here his influence much increased, and he gradually acquired a great reputation for sanctity, and

in time assembled a considerable number of dervishes or holy men around him. He augmented his influence by marrying daughters of the leading Sheikhs of the Baggara, and by his power and tact succeeded in merging together the various tribes.

The principles of his teachings are universal equality, universal law and religion, with a community of goods. All who refuse to credit his mission are to be destroyed, whether Christian, Mohammedan, or Pagan.

Causes of Rebellion.

* These are ascribed to—

1. Venality of the officials, and the oppressive and unjust manner of collecting the taxes. Causes of rebellion.

2. The suppression of the slave trade. Most of the supporters of the Mahdi, more especially the Baggara tribe, owe all their wealth to the traffic in slaves, which the Egyptian Government is now taking measures to stop.

3. Military weakness of Egypt. Colonel Stewart does not consider this as any real cause of the rebellion, as he believes the troops in the Sûdan would have been sufficient, had they been properly handled.

In May, 1881, the Mahdi first advanced his claims to May. 1881.
being the prophet foretold by Mahommed.

In July, Raouf Pasha, then Governor of the Sûdan, had his attention drawn to these pretensions. The Mahdi was then living at Marabieh, near the Island of Abba.

In August, he publicly proclaimed his mission during the feast of the Ramadan, and small parties of troops were sent to dispose of him, but failed to do so. He first showed himself in force in the neighbourhood of Sennâr, and then took refuge in the Shillûk country, finally taking up his position at Jebel Gadîr, about 150 miles north-west of Kaka on the White Nile.

A force of 350 regulars, under one Reschid Bey, attacked the Mahdi, but were defeated with loss. 9th December.

The latter having recruited his force began, early in spring, to threaten the province of Kordofan. 1882.

Raouf Pasha, Governor of Khartûm, was now recalled, and Abd-el-Kader appointed in his place; pending the arrival of the latter, Giegler Pasha was temporarily appointed. 4th March.

In April, a concentration of troops was directed on Kaka, and 3,000 men collected there, whereby the garrisons throughout the country were much reduced. April.

* Report on the War in the Sûdan, by Lt.-Col. Stewart, 11th Hussars.

The rebels, taking advantage of this concentration, attacked Sennâr, and had many minor successes in that part of the country, until they were dispersed by Giegler Pasha, who arrived about the middle of May.

1882.

May.

11th May.

14th May.

Abd-el-Kader reached Khartûm on the 11th May.

On the 14th the Egyptian troops were successful in an action near El Obeiyad, the result of which, however, was unimportant.

Towards the end of May, Ussuf Pasha, Governor of Fashoda, was ordered to march with the force from Kaka against the Mahdi, who was in the mountains at Gadir. After great delays Ussef set out with a large disorganized force of several thousand men and swarms of camp followers, but the rains had begun, and progression was slow.

7th June.

On the 7th June, the Egyptian Army was face to face with the rebels in a densely wooded country. A Seriba (or stockade) was commenced, and the troops were formed up in hollow square; but the rebels broke in upon them, defeated, and utterly destroyed the whole force.

This crushing defeat placed the Egyptian Government in a critical position, and gave great impetus to the insurrection.

The Mahdi now sent a portion of his army under Wad-el-Mukashef across the White Nile by the ford of Abû-Zeir to threaten Sennâr. He remained himself for some weeks at Gadir, though detachments of his following were raiding in Kordofan.

24th June.

On the 24th June, the rebels attacked Bara, but were repulsed with heavy loss.

17th June

On the 17th, an attack was made on Om Shangah, in Darfur, but was likewise repulsed; but towards Shakka, an Egyptian force of 1,000 men was almost annihilated on the 20th July.

20th July.

Many minor engagements were fought upon the lines of communication between Kordofan and Duaim, which resulted in favour of the rebels.

August.

At the beginning of August the Mahdi with the bulk of his forces was at Jebel Gadir; a second army was wasting Kordofan; a third stretched along the White Nile from Duaim to Geziret Abba on the north-west, and from Kaka to Marabieh on the east bank.

19th August.

The rebels were defeated at Bara, and Obeiyad had been revictualled.

23rd August.

On the 23rd, Duaim was attacked, but the rebels were here driven back with a loss of 4,500 men, and Mukashef, who was advancing on Khartûm, was also defeated with heavy loss about the same time.

The Mahdi now took the field in person, and advanced

on Obeiyad. On three successive days he made desperate assaults on the garrison, but on each occasion he was repulsed with great slaughter. The rebels are said to have had 10,000 men killed, while the Egyptian loss is put down at 288. These disasters caused great loss of prestige to the Mahdi, who had never heretofore been defeated when personally leading.

1882.
4th, 5th, 6th
September.

A relief column of about 2,000 men was now sent from Duaïm under Lieut.-Colonel Ali Bey Satfi, and was directed on Bara. This column had two engagements with the enemy, in the first of which it was successful; but the second time was defeated with a loss of 1,130 men, the survivors making good their retreat to Bara.

24th September.

In October, Bara was attacked with great determination on two successive days, but the rebels were driven off with great loss. The Mahdi then blockaded both Obeiyad and Bara. About this time an expedition under a Sheikh, sent against Duaïm was defeated, and the leader captured and hung at Khartûm.

9th, 10th
October.

10th
November.

At the end of the year Obeiyad had a garrison of 3,000 men and Bara 2,000, both were reported to be well provisioned. Reinforcements were daily arriving at Khartûm.

EGYPTIAN PROVINCES OF THE SÛDAN, THE NILE, AND THE EQUATOR.

GENERAL DESCRIPTION.

SOUTHWARD of the first cataract lies a country known as Nubia proper, or Lower Nubia, but which, as far as civilization is concerned, consists of a mere strip of arable land watered by the river. This cultivation in no place exceeds four miles, and at several points disappears altogether into the desert.

The latter extends to the Red Sea on the east, where Suâkin is the only practicable port; while on the west we find a continuation of the Libyan wilderness that flanks Egypt proper.

Nubia proper is by some divided into the Wadi Kunuz, Nubia, and the Wadi Nubah; the first extending from Assuam to Lebua, and the second thence to Dongola. In physical aspect the two districts are nearly identical. Granite and sandstone hills line the main valley for the most part; closing in upon it in many places, so that, up to Halfa,

c

cultivation is confined to the mere banks. At Wadi Halfa the second cataract begins and extends for 100 miles in a series of rapids through the Dar el-Hadjar to Sukkût, where the valley widens and the sterility disappears. Fertile plains stretch out on both sides; and well cultivated islands are to be seen in the river. Here the Nile seldom overflows, and artificial irrigation is necessary. Cultivation continues up to the third cataract, but contracts again on passing the island of Argo. At Ordu or New Dongola Lower Nubia terminates, and the *Belad es-Sûdan*, or Country of the Blacks, begins.

Dongola.

McCoan* speaks of Dongola as one of the finest of the Sûdan provinces, whose southern districts are within the zone of the annual rains, while it is washed northward by the overflow of the Nile over the area known as Wadi-Jaijar or Great Dongolese Plain. By the great curve of the river, which begins some miles above old Dongola, is enclosed a peninsula misnamed in many maps the desert of Bahyûda. This in reality is a fine savannah, peopled by several tribes, who rear large flocks of sheep, goats, and camels, and cultivate considerable tracts of land. In the course of this curve the country of the Berbers is passed; another fertile tract, to the south-east of which lies the province of Taka, one of the most productive portions of Egyptian territory. It is cultivated throughout, and carries on a considerable trade through Suâkin with Djeddah and the Hedjaz.

Berber.

Atbara.

The River Atbara gives its name to an extensive tract, between its basin and the Nile, which includes the provinces of Shendy and Halfiyeh (the ancient Meroé).

These consist of well-watered table lands broken by low ranges of hills, and possess the elements of great prosperity.

Shendy is on the caravan route from Sennâr, and also on that from Darfur and Kordofan to Suâkin.

Sennâr.

At Khartûm the Blue and White Niles (Bahr el-Azrek and Bahr el-Abiad) join; the former from the Abyssinian hills, and the latter from the Equatorial lakes. At Khartûm the frontier of Sennâr begins. This province may be generally described as bounded east and south-east by the Atbara and Abyssinia, westwards by the White Nile, which separates it from Kordofan, and south by the mountains of Fazokl. It is for the most part an undulating plain, increasing in elevation southwards, and, especially near the rivers, abounding in forests. The soil near Khartûm is sandy, and mixed with Nile mud, but further south a deep bed of argillaceous marl succeeds, which, though

* "Egypt as it is," McCoan.

apparently sterile in the dry season, is covered with crops during the autumnal rains. Due west lies Kordofan, watered only by the rains and wells placed at considerable intervals. Its cultivable area is estimated at 12,000 square miles. West of Kordofan, separated from it by a narrow strip of desert inhabited by the Baggara and Hamrân Arabs, lies Darfur, annexed in 1875. This province is in reality a huge oasis, or rather clusters of oases; towards the south it is hilly, the principal elevation being a ridge called Marrah traversing the province longitudinally.

The principal wealth of the inhabitants consists in cattle, though certain crops are also grown.

Wedged in between southern Kordofan and Sennâr is the Shillûk country, subjected to Egypt in 1870.

It is a slip of territory some 200 miles long by scarcely a dozen broad, and extends east and west to the junctions of the Sobat and Bahr el-Ghazal rivers with the White Nile. The soil is fertile and agriculture easy. To the west and south of this lie the Darfertit and Donga countries, now comprised in the province of Bahr el-Ghazal; and to the south and east of the latter are the Equatorial provinces, which are bounded to the south by Lake Albert Nyanza and the Victoria Nile.

Captain Gascoyne reported in November, 1882—

That until a thorough and lasting peace is made between Egypt and King John, strong military stations must be kept up all along the frontier from Massuah to Fort Jirdeh (or Jirri) on the Setit river in order to hold in check the raiding propensities of the wild Abyssinian troops.

The Arabs on the frontier at present pay taxes, not only to Egypt but also to Abyssinia, to avoid being plundered.

There are not a sufficient number of frontier stations at present, for Elula, the Abyssinian "Chef de Frontière," can at any moment ravage the country at his leisure.

The principal Egyptian stations are Massuah, Keren, Kassala, and Fort Jirdeh.

NOTE.—To prevent the confusion likely to arise from the undefined boundaries, and the various names used by authors for the different provinces and districts, the following are headings under which they will be described:—Nubia, Lower and Upper; subdivisions and districts of Nubia; Kordofan; Darfur; Equatorial Provinces including Bahr el-Ghazal; Shillûk country; coast of Red Sea; country of Issa; town and district of Harrar; Gallas tribes.

NUBIA.*

GENERAL DESCRIPTION.

ORIGINALLY Nubia was understood as including all the countries south of Assuan; afterwards Nubia proper comprised the country between Assuan and Dongola, south of this point being called Belad-es-Sûdan. Then the name Nubia was given, in a more or less restricted sense, to the countries on and around the valley of the Nile up as far as the mountains of Abyssinia, and included Belad-es-Sudan. Now the name of "Egyptian Sûdan" is gradually taking the place of all others for the whole of the Egyptian territory below Assuan.

The name originated in Egypt, where Nub or Nob means gold; Nubia is nowhere a native appellation, though Nubah is given to the natives of the gold-producing countries.

For the purposes of this report, Nubia is divided into Upper and Lower. The former comprising the following countries or provinces:—Dongola, Berber, Dar Shendy, Dar Halfiyeh, Taka, Sennâr, Fazokl. This does not include the provinces bordering the Red Sea; and the above names are given as the most distinctive, though many others will be found in use for the same places.

LOWER NUBIA.

Lower
Nubia.

Nubia proper extends through 6° of latitude, from Assuan (24°) to the south limit of Dongola (18°), nearly 600 miles along the river.

The first portion of it, Wadi el-Kunûz, reaches up about 70 miles; then follows Wadi-Nubah to the second cataract. The average width of this part of the valley does not exceed $\frac{1}{4}$ mile. It presents to view a glaring reddish desert studded with black rocks, and with narrow strips of green, and a few palm trees along the river.

Wadi-Halfa.
Batn-el-
Hajar.

Above the second or great cataract of Wadi-Halfa, which is a succession of distinct falls, the Batn-el-Hajar (or glen of rocks) reaches up about 50 miles. Here there is scarcely a trace of vegetation.

Dar Sukkût.

To this follows Dar Sukkût, where the valley opens and the excessive sterility begins to disappear. The date palm here attains perfection. Dar Mahâs succeeds, and the fertile plains of Dongola, where the river forms several large islands, that of Argo being 30 miles in length. Remains of ancient edifices occur throughout the whole extent, but chiefly below Dongola.

Dar Mahâs.
Dongola.

* See note preceding page.

The whole population of Lower Nubia does not exceed 15,000.

UPPER NUBIA.

The provinces of Upper Nubia have been under the Egyptian Government since 1820, when Mohammed Ali sent his son, Ismael Pasha, to destroy the remnant of the Mamelukes, to search for gold, and to reinforce his army with negroes from the districts of the Upper Nile.

This expedition did not penetrate further than 10° lat. N. in the valley of the Blue Nile, but was obliged to return owing to the sickness among the troops, and the little prospect of any booty.

In 1822 Ismail was surprised and burnt alive in Shendy by an Arab chief, and many of his soldiers massacred.

Government.

After the occupation of Upper Nubia, or, as it was called, Belad-es-Súdau by the Egyptians, it was divided into six governments or departments. Government.

- (1.) Departments of Dongola and Berber.
- (2.) Department of Taka, with chief town of Kassala, between 15° and 16° lat. N., and on the east bank of the River Mareb a tributary of the Atbara.
- (3.) Department of Khartûm, capital Khartûm, a town on the left bank of the Blue Nile at the point where it joins the White Nile.
- (4.) Department of Kordofan, described elsewhere in the report.
- (5.) Department of Sennâr, capital Sennâr, a town in lat. 13° 37' on the Blue Nile. (See page 43.)
- (6.) Department of Fazokl, capital Kiri, a small town on the left bank of the Blue Nile, in about 11° lat. N. It was built by order of Mohammed Ali, and called Mohammed Alepoli.

Each of these departments or mudiriehs was under a Mudir, who in some cases had under him a certain number of Commandants or Kashif charged with the duty of collecting taxes. Khartûm is the seat of the Governor-General of all these provinces.

On the acquisition of the Red Sea forts and provinces, they were placed under the government of Khartûm. In February, 1880, Massuah, Suâkin, Zeila, and the Bogos country up to Charrar and Sanhit were detached from the government of Khartûm and placed in a separate government, under Aledin Pasha.

Massuah was made into a mudirieh. The mudiriehs under Khartûm were these :—Sennâr, Kassala, Kordofan, Berber, and Dongola.

In April, 1882, the Sûdan was reorganized on paper. It was once more brought under the responsible rule of one Governor-General, with four governors under him, to rule West Sûdan, Central Sûdan, East Sûdan, and the province of Harrar. Schools, law courts, and medical departments were to be established, and the slave trade once more to be suppressed.

In June, 1882, Abd-el-Kader Pasha was appointed Minister for the Sûdan. He at once declared his intention of establishing an exclusively military administration, the non-military officials to be dismissed, the slave trade to be suppressed and placed under an inspector.

Frontier watch-posts to be established at Darfur, Fazokl, and Kalabat; also a service of surveillance at Harrar and in the following harbours:—Massuah, Zeila, and Berbereh.

*Population.**

The inhabitants are mostly of Arab extraction. Some of the tribes are pure-blooded Arabs, whilst others have more or less strains of negro and other blood.

The following are the principal tribes in Nubia:—

(1.) *The Bisharin* Arabs.—These are much the largest Arab tribe in Nubia. They dwell in the country between Berber and Suâkin, and pay taxes to the Egyptian Government.

(2.) *The Hadendoah* Arabs.—Their Sheikh Musa lives in Fillik, 38 miles north of Kassala. The tribe inhabits the country between Suâkin and Kassala, and pays to the Egyptian Government a yearly tax of 100,000 thalers.

(3.) *The Halenka*, Sheikh Ali Bey-Schikuli, live about Kassala, and pay a yearly tax of 25,000 thalers.

(4.) *The Beni-Amer*, Sheikh Rachib, live about the Baraka (Barka) River. Yearly tax, 58,000 thalers.

(5.) *The Hamran*, Sheikh Wod-Aghel. Yearly tax of 5,000 thalers.

(6.) *The Debaniyeh*, Sheikh-el-Arab Wordsaid, reside on the Atbara up to Kalabat and the Dender. Yearly tax = 65,000 thalers. They only speak Arabic.

(7.) *The Tukruri*, Sheikh Sala, live at Kalabat; pay taxes to both Egypt and Abyssinia. Tax = 16,000 thalers.

(8.) *The Shrukrie*, Sheikh Abbut-el-Kerim Abusin, dwell in the country between the Atbara and Khartûm. They only speak Arabic. Tax = 100,000 thalers.

* "Beilage zur Allgemeinen Zeitung," Nr. 121, 1880.

Climate.

There are three seasons in Nubia :—

The dry season, which begins after the winter solstice, and is monotonous and cheerless. All the vegetation is dried up, and even the birds have disappeared. Climate.

The rainy season continues from the summer solstice to the autumnal equinox.

The climate is rendered milder by damp fresh winds, and the sun is frequently veiled by clouds.

The first rainfall is always accompanied by thunderstorms. Soon afterwards, the whole face of the country, in the more fertile parts, becomes changed to a brilliant verdure, and is covered with life, from the various birds to beasts of prey of all descriptions.

Flies become very troublesome, especially one species which resembles a wasp, and attacks camels.

The northern limit of the rains is said to be between 17° and 18° N. latitude. To the north of this there is no rain. To the south, towards the 17°, rain is rare, and falls occasionally out of the regular season. Generally, however, the rainy season begins in July, though as one advances towards the Equator, it is of longer duration, beginning earlier and ending later.

The third season begins at the autumnal equinox, and is the harvest-time.

In the last months before the rains, the climate is excessively hot, at Khartûm, 81° to 86° Fahr. ; but the nights are sufficiently cool on account of the north wind, which constantly blows here.

Towards the vernal equinox, the khamstn, or wind of 50 days, blows violently, and parches up everything.

The dampness of Upper Nubia during the rainy season causes intermittent fevers and other ailments, which are not serious among the natives. They are the result, no doubt, of the miasma from the stagnant pools and decaying vegetation. With foreigners, the sickness is much more serious. When Europeans feel unwell in these parts, the wisest course is to proceed at once to the desert.

During all seasons, medicines should be used with great caution.

*From November to May, when the temperature is high and the air dry, the blood gets thicker and inflammations, &c., result. Tonics, wine, &c., ought to be avoided ; even coffee is harmful. Purgatives and emetics act energetically in small doses, and should be used with great discretion. Senna, a decoction of the pulp of the tamarind,

• "Il Sennâr e lo Sciàngallah," Prof. Beltrame.

and lemonade, are safe. A vegetable is preferable to a meat diet.

On the other hand, under the influence of a cool and damp atmosphere, the blood becomes too thin, the functions of the various organs become languid, and loss of appetite results. An ardent unnatural thirst ought to be repressed. Tonics now are useful and assist the digestion. Purgatives and emetics only act in small doses, and don't produce regular effects. The patient suffers from an unusual heaviness and relaxation of the fibres.

Diarrhoea and dysentery are easily developed.

Ophthalmia, so common in Egypt, is rare in the Sûdan, but is more severe in its form.

A malady to which new comers are specially liable is the so-called "frenhit, fertit, or farantit." It shows itself by a swelling generally in the foot, which has to be cut open. A worm then comes out, said to be sometimes a yard in length; the Guinea worm is the ordinary name. There are many theories as to its origin, but it is generally found in the legs; it is likely it enters while the person is wading, and is not induced by drinking the water.

In extracting the worm, great care must be taken not to break it off short. It should be drawn out as far as possible, then made fast to a twig, and the process repeated in a few days. Great cleanliness is said to be a preventive. Single worms, though causing much pain, are not fatal, but when 20 or 30 is present, the prognosis is very bad. Travellers should be most careful in drying themselves after being in water, and avoid resting their arms and legs on the bare ground. The natives, as a remedy for this complaint, use a strong solution of a plant called "goâk," both internally and externally.

Agriculture.

Agriculture. Agriculture is practised with tolerable care, as a rule. The plough is unknown, and the inhabitants make holes in which they place the seed.

The principal products are Dhura, maize, Dokhn, barley, lentiles, French beans, and tobacco.

In some gardens the vine is cultivated, and cotton is grown in many places.

In Southern Nubia the flora exhibit a great and beautiful variety. Here are specially found in great numbers the tree which supplies the gum known as "gum arabic."

Domestic Animals.

Domestic animals.

The horse, dromedary, and donkey are used for riding; the cow and ox, of which there are small numbers, for agricultural purposes, and also as beasts of burden.

Wild Animals.

Among these are found the rhinoceros, wolves, wild cats, monkeys, ostriches, and numerous snakes and other reptiles, none of which are venomous, however, with the exception of the "assal," a snake found in Sennâr. There are great numbers of birds, and in the river hippopotami and crocodiles abound.

SUBDIVISIONS AND DISTRICTS OF NUBIA.

DAR HALFIYEH.

THIS district extends along the Bahr el-Azrek or Blue Nile, and the Nile between latitude 14° and 16° N. It was formerly subject to Sennâr, but became independent of this province when Ismail Pasha annexed Nubia. Hal-fiyeh was the most important town, and the King (Melik) and his court resided there. It had formerly some 15,000 inhabitants, now not more than 3,000 or 4,000. It was famous for its salt mines.

The continual passage of caravans rendered it full of commercial life ; and the Kings of Halfiyeh and Shendy united were once able to put into the field 30,000 men splendidly mounted. Now the commerce no longer exists, and the Egyptian rule has destroyed the country.

In addition to the indigenous population, many nomad Arabs inhabit the country, and breed sheep. The greater number of these Arabs are of the Kababish race from the west of the Nile.

The Abdullah and Hassanieh tribes occupy the region to the east.

Khartûm is in this district.

Sobah is a miserable town about six hours' from Khar-tum on the right bank of the Blue Nile.

SHENDY.

A district with town of the same name. This was once a flourishing place, through which the caravans from Sennâr and neighbouring countries passed on their way to Egypt or Mecca, and had some 7,000 inhabitants. It now does not possess one-third that number.

Shendy was once the most important part of the ancient kingdom of Merôe, and many assert that it was the cradle of astronomy, literature, philosophy, &c., and that Merôe

was the residence of the famous Queen of Sheba, who visited Solomon. The ruins of Merôe are not far from the town of Shendy.

Merôe is now a vast sandy plain, where some ruined pyramids are the only vestiges of its former greatness.

DAMER

Damer. is to the north of Shendy ; the town is near the mouth of the Atbara.

There are here only about 500 houses, inhabited by Arabs, mostly priests, under a chief who is considered supreme on every question. This chief is held in great estimation by the neighbouring tribes, who consult him on all occasions.

Up to 1820 Damer was a small independent State, and celebrated for its school, to which the young Arabs were sent from far and near to be educated.

DAR SCHAIKIYEH.

**Dar
Schaikiyeh.**

A district on the banks of the Nile north of the so-called Bayûda Desert. The chief town is Korti. Before the invasion of Ismail Pasha this was a military republic, and domineered over their neighbours. It offered an heroic resistance to the Egyptian troops.

The Schaiki are famous horsemen ; their horses are of Arab blood.

DAR DONGOLA.

**Dar
Dongola.**

The northern confines of Dongola are the limits of Upper Nubia. In 1815 Dongola was tributary to the Schaiki, by whom it was taken from the Mamelukes. It came under Egyptian rule in 1820. It was in the middle ages the place of highest importance in Nubia, but has much degenerated in fertility and population, owing to the oppression of its masters.

DAR BERBER.

Dar Berber.

The capital is Berber, formerly known as El-Mecherif.

This district lies along the Nile to the north of the River Atbara.

The town is a station for all the caravans coming from Suâkin.

BOGOS.

Bogos.

On the northern frontier of Abyssinia, a tract of country ravaged for many years by frontier wars. The capital is

Keren, a description of which will be found at page 119. This province has been taken from Abyssinia by the Egyptians within the last 10 years. See History, p. 16.

TAKA.

A small province on the borders of Abyssinia, and east Taka. of the River Atbara.

The capital is Kassala, for a description of which see page 116.

FAZOKL.

This district, whose capital is Kiri, is a mountainous Fazokl. region intersected by torrents, and covered with inaccessible forests inhabited by wild animals.

It lies to the south of Sennâr on the left bank of the Blue Nile, between latitudes 10° and 12° N., and is traversed by the River Tomat, a tributary of the Blue Nile. It is stated that there was once a great trade in gold dust carried on here, which was collected from the beds of the torrents, and exchanged for corn and cattle with the people of Sennâr.

PROVINCE OF SENNÂR.

This province lies principally in the angle formed by the Sennâr. White Nile above Khartûm and the Blue Nile or Bahr el-Azrek, and between lat. 12° and 15° 45' N.

In lat. 15° 37' N. is situated the junction of the two Position. great branches of the Nile, the tract between which, increasing towards the south to 50 or 60 miles in width, is called by the Arabs the "Island of Sennâr." The indigenous population call it "Hui."

The towns lie chiefly along the banks of the Blue Nile, and are numerous, from 13th parallel for 200 miles.

The province is bordered on the north by the country known as Dar el-Halfiyeh, and on the south by Dar Fazokl.

To the east of the Blue Nile the province extends as far as the forests which surround Abyssinia. The actual boundary is but vaguely defined.

The west side of the island of Sennâr is more or less a wilderness. Hellet-el-Ais, a poor hamlet at the ferry on the road to Kordofan, and, lower down, Manjera (Mangara), a Turkish station for hewing timber and building boats, being the principal places.

The authority over the wandering Arab and Ethiopian tribes depends entirely on the vigour of the Government.

At the present time the old province is divided into two

parts, *i.e.*, the Department of Khartûm, and the more southerly part still known as Sennâr.

History.

History.

The popular traditions of Sennâr represent that country as the original seat of the Macrobiî, whom Herodotus mentions as the most remote of the Ethiopians, and a people whose gold provoked the cupidity of Cambyzes. The same historian also speaks of the Automeli (emigrants) or Egyptian soldiers, who, deserting Psammeticus, marched south and settled in Ethiopia above Merôe. These were the Sebridæ or Sembritæ of later writers, and prove that the Island of Sennâr was occupied by Egyptians.

Tradition also says that, after the time of Cambyzes 12 Queens and 10 Kings reigned in Sennâr. Then the tribe of the Fungi came from Western Sûdan, forded the White Nile, conquered, and established themselves in a part of the country.

In Sennâr at the beginning of the present century, several rival factions disputed for sovereign authority. Two usurpers, Adlan and Rêgeb, had made themselves masters of the State to the prejudice of Bâdy the rightful heir, when Ismail Pasha entered the country in 1820 at the head of a Turkish army. Adlan was assassinated by Rêgeb, who had to fly the country, and Bâdy surrendered his rights to Ismail.

This ancient Egyptian settlement of Sennâr seems to have risen superior to Merôe, and to its influence may be ascribed the imitations of Egyptian art found scattered over the plains in the latter district.

As Christianity spread up the Nile, it was soon received by the descendants of the Egyptians, and in the 10th century the most flourishing State of Ethiopia was the Christian Kingdom of Alwa on the Blue River, with Soba for its capital. The ruins of Soba may now be seen about 15 miles above Khartûm.

Topography.

Topography.

The territory of Sennâr is, in general terms, a great level plain, from which masses of rocks protrude at wide intervals, and to no great elevation. West of the town of Sennâr, however, about 10 or 12 hours' distant, are the mountains Moia, Mandera, and Segadi, apparently extending as a chain from south to north, but in reality disconnected. Granite is the prevailing rock, associated with micaceous schist and greenstone. The red granite of Segadi is in the finest possible condition, and superior to that of Syene.

Jebel Moia, the largest of these hills, has a length of some miles, and a height of about 1,200 feet above the plain.

Baboons are the only inhabitants of the bare rocks; apes, parrots, and Guinea fowl inhabit the woods at their feet.

The ebony tree grows round Jebel Moia; the sycamore round Segadi.

The plain of Sennâr, for some distance above Khartûm, exhibits only a sandy soil, mixed with river deposits. But, from Mesalamieh up, its character changes entirely; and the level flat, now higher above the river, becomes a deep bed of argillaceous marl, containing calcareous concretions in great quantity. Over its surface are scattered boulders of granite, and fragments of greenstone in great numbers; of the latter are made the mills of the country, of which every household has one.

The plain is covered with a black mould, the result of decomposition.

The argillaceous soil is retentive of water, and when refreshed by rain (for these rich plains are nowhere reached by the waters of the Nile), becomes exceedingly fertile. But in the dry season it has an aspect of the most dismal sterility; no tree, little herbage, and the naked ground cracked and gaping in all directions with the burning heat.

Vegetation.

The lines of thick wood which extend along the banks of the Nile below the junction of its two great arms, continue along the Blue River above the junction. Vegetation.

The foliage of all trees in this region, with the exception of the *Acacia senegalensis*, is scanty, and gives little shade. With the species just named are also associated the *Acacia seyal* and *Acacia nilotica*, or *Sunt*, producing gum arabic. *Balamites Egyptiacus*, *Rhamus spina Christi*, and *Sodada decidua*; the last leafless, and presenting only a bunch of slender boughs.

The fruit of the tamarind, called Ardeb in Nubia, is in great request for its medicinal qualities.

Above Khartûm the palms increase in number; the Dôm and date palm are seen towards Sennâr; but more characteristic of the climate are the Dileb palm and the Baobab, which latter and the tamarind make their first appearance at Kalamîn, increasing in numbers southward, till two days' journey above Sennâr they shade the lounging place of every village.

The plain around Sennâr is destitute of trees, and,

though naturally prolific, rarely presents to view the luxuriant vegetation which might be expected so near the Equator.

For six or seven months of the year Sennâr offers the aspect of a sterile waste.

But as soon as rain falls, the arid and dreary waste becomes a sea of mire, and on this, without any preparation, is sown the dhura (*Sorghum vulgare*), the characteristic produce of Sennâr, which may be regarded as the native country of Dhura.

In three months and a half, or about at the end of October, the whole place is covered with ripe grain, and the harvest is gathered.

Below Mesalamieh, where the river here and there rises above the bank, and irrigation is practised, the crops are somewhat earlier.

Near Khartûm the extensive inundated tracts on the White Nile are sown, on the retirement of the floods, with kidney beans, and afterwards with dhura.

The inhabitants only cultivate a very small portion of the soil, and yet a good harvest is sufficient to provide for the wants of two or three years.

The principal crops are dhura, beans, lentils, tobacco. On the plains about the Dender cotton and sesame are grown without trouble. In gardens, watered every day, the pomegranate, lemon, fig, &c., are found, covered with fruit or flowers at all seasons. The vine, banana, onion, water-melon, and other vegetables are also cultivated.

In Sennâr, dhura is sold for 20 to 25 piastres the "ardeb," or about 3s. to 5s. per 100 lbs.

The Kalaba or small merchants collect and transport it on donkeys for distances of seven or eight days' journey from their localities

Inhabitants.

Inhabitants

The population is very mixed, and no traveller has succeeded in the attempt to point out distinctly the aboriginal race. According to Cailliaud there are six classes readily distinguished :—

- (1.) The Assari (yellow) of manifestly Arab origin.
- (2.) Hamar (red) mulattoes, one remove from the preceding.
- (3.) Azrek (blue), darker than the Hamar, and including the people called Fungi.
- (4.) Akhdar (green).
- (5.) Elkat Fatelolu (very dark), and little removed from No. 6.
- (6.) The Sûdan blacks or negro slaves.

The existence of a once dominant white race, distinct from the Arab, cannot be doubted.

The pastoral tribes of the island are the Aelt and Haraza.

On the right bank of the Nile are the Gahlin, the Kawalah (between the road and Dender), the Refoa, and Dobena.

The pastoral tribes of Sennâr move north with their herds in May, and return in September.

Manners and Customs.

The bodily vigour of the men is soon undermined by climate, &c., and they grow rapidly decrepid in declining years. The women, on whom all the drudgery of domestic life devolves, soon become repulsively ugly. Character.

The dress is the ferda or toga, which is folded in a variety of ways.

The elaborately dressed hair and ornamented sandals exactly represent the fashion of ancient Egypt as painted on the tombs.

Slavery was one of the chief conditions of social life ; when Sennâr was an independent State, every man was an abject slave, either of a private master or of a despotic King.

The inhabitants have scarcely any other occupation than that of cultivating the ground, which they do very imperfectly ; it could be made to produce three times what it does at present, but they themselves say the Egyptian rule has totally suppressed all habits of industry.

The land is thinly peopled and little cultivated, and there are no proprietors of the soil. Any one can take a piece of open ground and cultivate it, but cannot claim the produce as a right until he has taken in all the crops.

The work of the fields is all done by slaves.

The upper classes spend a life of indolence and dissipation. All classes love intoxication, and drink either merissa or brandy distilled from it.

They are not particular in their food, and, though Mahommedans, do not refuse pork, or the entrails of camels, sheep, or cattle.

Their favourite dish is liver, which they devour raw.

They live, however, as a rule, on nothing but Dhura cooked with water ; and frequently fast for several days without complaining.

Belilah is a decoction of Dhura and water.

Merissa, a kind of beer, is made from Dhura by boiling it for a whole night and then letting it ferment. That

subjected only to a slight fermentation is reserved for the priests and devout Mussulmans.

Bilbel is merissa more carefully made from the best grain.

Logma, the chief article of food of the poor, corresponds to the "polta" of the Italian peasantry. It is a sort of paste made with Dhura ground and mixed with water and milk.

Ebreh is the same paste made into thin wafers.

Kesra, or bread, is also made of thin paste, baked for a few minutes on a hot iron or stone.

Meat is roasted on coals or hung up and smoked. When dried for keeping it is called *El-kadid*.

Salt is scarce and not pure.

Some of the natives chew a preparation of tobacco or stramonium, which frequently gives them fits of insanity.

They have some surgical art, can amputate and perform other difficult operations; they also practise inoculation for small-pox.

Trades.

They are skilful as weavers, goldsmiths, curriers, potters, &c., and in Ethiopia are celebrated for superior workmanship.

Religion.

The people, though professing the faith of the Koran, observe hardly any of its precepts; they never wash nor pray, and most of their villages are without mosques.

Dwellings.

The houses of Sennâr of the present day are built of sun-dried bricks, and roofed with halfa (a grass), dhura straw, or reeds. Formerly there were many houses of two stories in Sennâr, but few of them now remain. The architecture, however, is still far superior to that of surrounding countries.

Scattered among the rectangular built houses are the far more numerous huts of the black population. These are made of clay and straw, and of the various shapes peculiar to the various races.

Domestic Animals.

Domestic animals.

The horse, the ass, and camel all suffer severely from the rainy season in Sennâr. The cattle are small and ill-conditioned, the sheep tall and without wool.

The dog appears to be a degenerate greyhound, and is very subject to hydrophobia.

Wild Animals, &c.

Wild animals.

The wild animals are not many.

The elephant, rhinoceros, giraffe, zebra, and antelope keep to the woody districts of the Abyssinian frontier, or to

the forests to the South, and rarely approach the inhabited banks of the river.

The hippopotami and crocodiles are very numerous. The marafin (hyena) enters the villages at night in search of dead bodies.

Apes, parrots, and baboons, wolves, leopards, &c., are plentiful in the woods.

The *suretah* or fly that attacks cattle does not come within two days' journey of Sennâr, though other travellers assert that it is most destructive to camels during the rains.

Mosquitoes are very troublesome. Various kinds of scorpions and other reptiles abound; the bite of the snake known as the "*assal*" causes instant death.

Climate.

Though the limit of tropical rains is marked in maps in lat. 17° 40' N., yet, about the Nile, these rains can hardly be said to reach beyond the 15th parallel. At Khartûm, in lat. 15° 37' N., rain falls only every second or third year, and droughts of long continuation are not unfrequent. Even higher up where rain never wholly fails it is still but scanty. But on the marshy plain of Sennâr three or four tropical showers are enough for the dhura.

The rains seem to be occasioned by east winds, though winds from the south prevail during the wet season, which generally begins in July and continues for two months.

Generally speaking, the Karif (rainy season) may be said to commence early in May, and continue off and on up to the end of October.

In November and December the crops are gathered.

The Nile swells fitfully in May, begins to rise steadily in June, and attains its greatest height early in September. Immediately before, and at times during the rains, the heat is insupportable, and the air oppressively humid. Then come fevers and dysentery, which are most fatal on the argillaceous plain.

Sandy spots near the river, and places on the verge of the rains, are said to be most exempt from disease.

The *Ferentit* or Guinea worm, another plague, which comes with the rains, and is attributed to the use of rain-water, is more frequent south of Sennâr.

Small-pox is destructive in Nubia.

In winter the thermometer falls to 60°, and the air becomes very dry.

The climate, tolerably cool, is yet unhealthy, though to a less degree in the department of Khartûm.

*Rivers.**Rivers.*

The Blue and White rivers do not receive north of latitude 12° any notable streams from the tract lying between them. But, as the whole country visibly slopes west, it is probable that some intermittent rivulets flow into the White River.

The Blue River is joined within the limits of Sennâr by the Dender, and lower down by the Ra'ad (lightning) or Shimfa, as it is called by the Abyssinians, in whose territories both these streams rise.

They are both great rivers in the rainy season; and when this is over the Ra'ad stands in pools.

The villages and settled population of Sennâr are nearly all on this river, the ordinary width of which varies from 500 to 1,000 yards.

KORDOFAN.*

THE following is mostly taken from the report on the Province of Kordofan by Major Prout, published by the Egyptian General Staff.

*Limits of
the province*

The limits of the province are ill-defined. The most northerly villages are Kafûl, long. 30° E., lat. 14° 15' N.; Safiyeh, long. 31° 45' E., and lat. 15° 40' N., and Shegeg, long. 32° 15' E., and lat. 14° 30'; but a tribe called the Kababish, who roam over the steppes between these villages and the Nile, pay tribute to the government of Kordofan. The authority of the Governor ceases at from 10 to 20 miles from the Nile. On the south the Baggara tribes and negro tribes of Takalla and Dar Nuba are nominally subject, and pay an uncertain tribute. Dar Nuba (or country of black slaves) lies at the south-west corner of Kordofan, but its limits cannot be fixed with any precision. On the west the western limit of the range of the Beni-Hamid Beduins forms the boundary, a very uncertain one, passing near Abu-Harraz and Kagga, between long. 30° 30' and long. 29° 30'.

*Topography.**Topography.*

In appearance Kordofan is a monotonous rolling steppe country formed of undulating plains. In the west, iso-

* "General Report on the Province of Kordofan," by Major H. G. Prout.

lated peaks rise from 150 to 600 feet above the plains, such as Jebel-Abu-Senûn and Jebel Kordofan.

In the north-west the groups of Kaggâ (Kaja) and Katûl, and in the south that of Daïer, are compact mountain masses offering strongholds to brigands.

South of the 13th parallel of latitude the country changes to flat, fertile, and thickly wooded plains, from which the rugged mountains of Takalla and Dar Nuba rise abruptly. The triassic formation extends over the whole province, of which the new red sandstone resting on hypogen rocks is the most important feature. Over the sandstone the ground is firm and gravelly, and contains much oxide of iron. The soil is bad, except when improved by the clay and potash resulting from the detritus of hypogen rocks where they crop up. Near El-Obeiyad igneous rocks, quartz, gneiss, and granite abound. On the atmoores or deserts, the signs of vegetation are very scarce. The steppes of Kordofan are from about 1,350 to 1,850 feet above the level of the sea; the greatest altitude being at El-Obeiyad, and near the mountains in the north and south. They present a dull brown appearance, with here and there thickets of small acacias, a huge *adansonia* or two, and villages of conical straw huts: broad red patches mark the dokhn fields, which are green during the Karif, as are also the plains, which latter, however, by the middle of October, have taken again their burnt-up appearance; this lasts till late in the following June, and, as Major Prout says, "only a waste of sand can be more forlorn."

Dar Nuba may be best considered from Jebel-Dilling, where four granite peaks rise to 400 or 500 feet above the plains, on which other similar peaks crop up here and there. At a distance of from 8 to 12 miles the view is shut in to the N.W., W., S., and S.E., by high rugged mountains. To the north broad plains slope down to El-Birket, and the watercourse draining the northern and eastern faces of the mountains runs in the same direction. These plains are uninhabited and densely wooded. The trees have no value as timber, and consist principally of acacia.

The people live in niches and on the terraces of the mountains in comparative security from the predatory horsemen of the plains.

Jabel-Daïer, a compact group of mountains, which from a distance appear to present on every side a lofty unbroken front. They are the highest mountains relative to the surrounding country in Kordofan, rising at least 1,000 feet above the plains. There is reported to be, in the interior of the group, a great basin well watered with ponds and

springs. The inhabitants live on the mountain side safe from the Baggara.

Takalla
Jebel
Wadelka.

Takalla. Jebel Wadelka is a detached group of the Takalla mountains lying to the north-west of them, and at about 20 miles distance from Gebel Daier. It consists of bare precipitous granite peaks. The mountain country subject to the King of Takalla is also vaguely defined, but extends some 30 miles south of Jebel Wadelka. The height of the latter is about 500 feet, and the slopes have been terraced by the inhabitants in a remarkable manner. Water is supplied by springs which trickle out of the rocks, and the inhabitants here also live among the rocks.

Between Wadelka and Daier is a flat, fertile, heavily wooded country traversed by watercourses tributary to Abu-Hable. It is, however, uninhabited.

There is also a luxuriant valley, thickly wooded, between Gebel Wadelka and the main range. The trees are mostly acacia, and a low thornless tree called *Libban*. There are also many deleb palms, tamarinda, and baobabs.

Inhabitants.

Inhabitants. The total population is about 280,000, including nomads, and nine-tenths are primitive barbarians.

Villages. The inhabitants of the province itself principally reside in villages, while various nomad tribes roam about the outskirts. The villages are most numerous in the central region, especially about El-Obeiyad. They consist of groups of *tokels* and *rabukas*, the former cylindrical with a conical roof, the latter rectangular, and both made of stalks of corn (*dokhn*) lashed to a framework. The fact of a village being at any place is no proof of a constant supply of water, as many of them are only occupied during the rainy season, and in many cases the inhabitants have during summer to make journeys of two or three days for water.

Villages. The following table shows the distribution and numbers of the village people as given by the Governor in 1875. Prout considers them probably exaggerated.

El-Obeiyad	....	....	....	30,000?
Department of Khûrsi, 359 villages	....	....	....	42,000
" Talara, 119	....	....	....	18,000
" Bara, 171	....	....	....	23,840
" Abu-Harraze, 80 villages	....	....	....	16,830
District of El Ghodiat, 32 villages	....	....	....	6,870
6 villages Sheikh Mohammed	....	....	....	1,500
16 " Fellata	....	....	....	4,000
14 " Hamaoni	....	....	....	7,700
12 " Abu-Safiyeh	....	....	....	4,000
25 " Jebel Kaggera and Katôl	....	....	....	5,000
7 " Haraza	....	....	....	2,000
12 Dar el	....	....	....	3,000
Total population				164,740

Nomad Tribes.

1st. *The Baggara-el-Howazma*, in number about 15,000, are Beduins ranging from El-Birket to the mountains of Dar Nuba, and even beyond. Nomad tribes.

2nd. *Baggara-Habaniyeh*, about 8,000, range from Birket el-Rahad, east to Shirkeléh, and south to Takalla.

3rd. Beduins *Manateh el-Gimeh* also Bagarra, number about 25,000, and range between the Habaniyeh country and the Nile, and south to the country of the Bagarra Selim.

4th. *Beni Gerar*, about 2,500, in the east of the department of Khûrsi, and about Jebel-Tiones.

5th. *Kababish*, about 60,000, range from Kordofan north to the Nile, and are the finest tribe in the Sûdan to the west of the Nile.

6th. *El-Mahalia*, about 2,000, in the south-west of the department of Abu-Harraze; but range as far as Jebel-Kaja.

7th. Beduins of *Sheikh Kanana*, about 1,500; same range as the Mahalia.

Thus the total of nomads is about 114,000.

Mountain Tribes.

In addition to the above, who acknowledge and pay taxes to the Egyptian Government, there are inhabitants of Jebel-Dafer, Takalla, and Nuba, who, though supposed to be subjected, are turbulent, little known, and much feared by the village people. Mountain tribes.

Races.

Village People.—The village population is very hetero- Races.

geneous, especially about Obeiyad; the oldest race is found in various villages north of the 13th latitude under the names of the Ghodiat, Gilledat, and Gowanieh; they form the mass of the agricultural population, and are the base of the population of El-Obeiyad. Mixed with these are the Kungarra, who, originally coming from Darfur, conquered Kordofan, and were in their turn subdued by Mohammed Ali. The Egyptian conquest brought in the Turkish blood, that of the Egyptian fellah, and, in the Bashibazûks, that of all the races of Asia Minor. In addition to these, Greeks and Levantines have left their mark, and the slave trade has been the means of introducing a great influx of the negro tribes from the south.

The colour of the generality of the people is dark brown with slightly reddish tinge, and woolly hair worn long.

The Kungarra and the M'Sabât tribes, who originally came from Darfur, still live apart, and each has its Sultan, equivalent to the lesser Sheikhs el-Belad of Lower Egypt. These races are black, with woolly hair.

In the mountains of Katû, Kaggâ (or Kaja), and at Jebel-Kohr and Jebel-Daïer, colonies of negroes from Dar Nuba are found, and various other colonies from the Nile and elsewhere are scattered through this province.

Nomads.

Nomads.—The Beduins are far superior mentally and physically to the village population: as a rule they live in camps, seldom in permanent villages; they wander about with their herds according to the varying conditions of water and pasturage. The favourite camping-grounds of the Baggara are along the watercourse known as Khor-Abu-Hable, and about the valleys of the west bank of the White Nile. During the Karîf they pass into the valleys south and west, but again come north when water becomes scarce and the flies troublesome.

**Inhabitants
of Nuba,
Daïer, and
Takalla.**

Nuba, Daïer, and Takalla.—The inhabitants are negro, but superior to the Shillûk and Dinka. Exceedingly black in colour, of low stature, and slender form.

Arms.

Arms.

The village people, though not warlike, invariably carry a lance, and perhaps two or three, but fire-arms are rarely seen.

The Bagarra are better armed, and carry in addition to the lance (which, however, is the essential weapon), a two-edged sword. Guns are rare, but the lance is very long, and a most formidable weapon. The negroes of the southern mountains are even better armed, and frequently carry fire-arms in the shape of double-barrelled percussion guns of poor quality; while those not so armed carry several spears, and a sheath knife about 15 inches long.

Occupations.

The villagers are a lazy people ; raising the grain crop (Dokhn), and preparing the grain for food and drink are almost their only occupation. Occupations.

During the rainy season they plant, cultivate, and gather their one crop. The meal of the Dokhn is prepared by crushing the grain between two stones ; and beer, "merissa," is made from the same material. The procuring of water is a serious question for them, as it has to be drawn from deep wells perhaps at five or six hours distant. Some of the villagers have small herds of cattle, goats, and a very few sheep ; and in certain places small plots of beans, pea-nuts, cotton, and sesame are grown. Difficulty of obtaining water.

Special trades are very rare : occasional basket makers are to be found, and in some villages iron workers, who forge rude hoes, knives, and hatchets.

In El-Obeiyad itself those who follow special trades are Turks, Arabs, and Levantines.

The *Baggara* are cattle breeders, as their name signifies ; they cultivate little, and have no trades, living principally on the produce of their herds. Their chief occupations are hunting and war ; the latter they wage without rest upon each other, and upon the mountain tribes. These thousands of turbulent and daring horsemen fight to steal cattle and slaves, and are a most dangerous element in the population of Kordofan. They speak a tolerably pure Sûdan-Arabic, and seem to extend themselves rapidly at the expense of less favoured races. Occupations of the Baggara.

The chief industry of the *Takalla* has hitherto been slaving ; they cultivate a little corn, cotton, and make a coarse cotton stuff known as "damûr." They consider it disgraceful to do anything so active as to hunt. Many iron workers are to be found among them, who make spears, knives, hoes, &c., from iron brought from Kordofan. Occupations of the Takalla.

The inhabitants of Jebel-Dafer occupy themselves with little else except the cultivation of dhura, and plundering when occasion offers. Inhabitants of Jebel-Dafer.

The people of Nuba are quiet and agricultural ; they are said to be skilful in iron work, making lances for the Bagarra. They have few flocks and herds. People of Nuba.

Religion.

The mass of the population is grossly superstitious, and not of sufficient intellectual capacity to be religious. Though Kordofan is a Mussulman province, the mosques are frequented only by the more intelligent and wealthy ; Religion.

but the Sheikhs of religion and the Fakis are numerous and influential.

Almost every person wears talismans written by the Fakis, and these are even tied on domestic animals. A Roman Catholic Mission has been established some years, but does not seem to have produced much effect; its headquarters are at El-Obeiyad.

The Baggara are better Mussulmans than the village people; they keep up their knowledge of prayers, and observe fasts with rigour.

The mountain negroes are generally heathen, but in Takalla the King is a Mussulman, and many of the people are devoutly religious, and send their young men to be educated at Khartûm and El-Obeiyad.

Morals and General Character.

Morals and
character.

The inhabitants are low in the moral scale; murder is very common, and no one travels without arms. Petty theft is less common than murder, but cattle-stealing frays are constantly taking place on the borders and in the more remote districts.

The women are universally immoral, and truth for its own sake unknown.

The incessant brigandage on the frontier has raised up a race of active hardy men, mostly Bedouins, but the villagers in the interior are poor spirited and unambitious.

Extreme sloth is the principal characteristic of the latter; neither food nor money will tempt them to work, and only the lash is effective for the purpose. For centuries they have made no improvement in their processes of cultivation, which are as rude as is possible; though in constant contact with the Bagarra, and other neighbours who use horses, dromedaries, and camels, they have never learnt to breed and train any animal for burden except a miserable race of donkey.

Soil.

Soil.

The soil of Kordofan* is uniform, and is a granite sand mixed with clay; sometimes the clay, but more generally the sand predominates, and this especially in the north and east, while in the small basins of Bara, Abu-Harraze, and Melbeis, and, in general, south of El-Obeiyad there is a larger admixture of clay; and, as we pass still further south, the soil of the watercourses rising in Dar Nuba and sinking in lat. 13° long. 32° 25', becomes somewhat plastic. In this neighbourhood also there are dense areas of forest

* "Province of Kordofan," page 50.

country, over which a rich black mould has been formed by the decaying vegetation, this being especially the case between El-Birket and the mountains of Nuba, and between Jebel-Daïer and Takalla.

Some weeks after the rains have ended the black soil cracks in wide and deep fissures.

South of parallel of $12^{\circ} 30'$ and west of longitude 32° is the richest soil of Kordofan, composed of clay loam, with a certain admixture of felspar, which, if it could be watered, would produce magnificent crops of sugar-cane, corn, tobacco, and cotton.

The whole remaining area is, though inferior to the above, a strong soil, and capable of being made productive; it is largely feldspathic, with more or less iron, and considerable mica. It only wants water to make it fertile.

The land is in many places worn by the recurrence of the same crop for centuries; this is most common about Bara and Tafara.

Water Supply.

The entire water supply of Kordofan is :—

Water
supply.

- 1st. The permanent, found in wells and the three small lakes, El-Birket, Er-Rahad, and Shirkeleh.
- 2nd. The temporary supply of rain water during the Kartf.

Apart from these two sources, there is not another drop of water in all Kordofan. Every other lake and pond except the three mentioned is dry a few weeks after the rains cease; and there is no running stream or spring to be found even during the rains.

The watercourses (Khors) contain water for a few hours, while rain is falling. In all probability no water finds its way from Kordofan to the Nile.

Kordofan is in consequence an arid unproductive land, with a sparse population yielding a scanty revenue. To increase the water from the two sources above named is the question on which depends the future value of the province.

North of parallel $14^{\circ} 30'$ Kordofan is hopelessly arid; that portion between $14^{\circ} 30'$ and $12^{\circ} 45'$ is a rolling steppe country, between 1,400 and 1,900 feet above the level of the sea. There is no particular direction of drainage, and although the soil is light, marks of running water are not to be seen. Under the thick stratum of detritus is found, at from 100 to 150 feet below the surface, a stratum of mica schist. At various places on the surface of the ground, isolated peaks of granite crop out, showing the direction of the ancient ranges now abraded down.

The region west of the line connecting Abu-Harraze and Jebel Katûl, and that north of $14^{\circ} 30'$, are wastes with wells at rare intervals, and are only ranged over by the nomad tribes, wandering shepherds, and camel-breeders during the rainy season.

In the area chiefly inhabited by the villagers, not including the basins of Abu-Harraze, Cagmar, Bara, or Melbeis, Major Prout's expedition estimated the number of wells of drinkable water, contained in upwards of 16,000 square miles, at 900. Except certain groups of shallow water holes found in the Khors and at the base of the mountains, these wells are narrow shafts, from 80 to 160 feet in depth, going down into the mica schist. Many of them are brackish, at least a quarter of them dry for half the year, and the majority yielding but little water, except during the last weeks of the Karff.

Theory of
the water
supply.

Colonel Colston's theory is as follows:—The wells of Kordofan are supplied only by the rainfall on its own area, as there are no mountains sending down their drainage, or any lake or river system filling the reservoirs by infiltration. On the north the rainfall is less, and the general level of the country lower; on the east the Nile is 500 feet lower than any considerable area of Kordofan. On the south the regions of Nuba and Takalla generally drain south and east; on the west Darfur is of a generally lower level, and separated from Kordofan by a waterless tract.

The supply of water is thus obtained, which falling in the shape of rain on the upper porous stratum, filters through to the impenetrable beds of mica schist; here it flows over the surface, and is collected in any depressions. If a well strikes one of these depressions, there is an unfailing supply of water; if on the other hand it strikes the general surface, the supply is soon exhausted. The mean annual rainfall may be taken at 14 inches.

As might be expected, many wells become entirely dry, and most yield but little water late in the year. After the Dokhn is gathered, whole villages migrate to the more permanent wells till the beginning of the rains. In El-Obeiyad, where the supply is exceptionally large, water becomes an article of commerce, and late in the summer usually sells for 12 piastres (Egyptian) the vase of $1\frac{1}{2}$ to 2 gallons.

Outside El-Obeiyad there is not a well within a circle of 20 miles radius which can be relied on later than December, excepting at Melbeis, 10 miles to the south. Water being thus so scarce, little is available for agriculture or stock raising.

Reservoirs have been established at certain places, prin-

cipally at El-Obeiyad, where the natural drainage can fill them, and where the soil contains sufficient clay for their construction. They might be made on the watercourses which drain to Melbeis, and on those conducting water from near Abu-Harraze, Melbeis, and Jebel Kordofan to Lake Er-Rahad, but such reservoirs are only useful during the rainy season.

There are two large reservoirs at El-Obeiyad, each of which is sunk about 6 feet 6 inches, and a bank surrounding it about 6 feet in height, and each covers about 600 to 1,000 square yards of surface. There are several smaller ones; those five or six miles down the valley were, during the Karfi of 1875, filled nearly to the level of the natural surface. The smaller reservoirs dry up within a week after the rains cease, and the larger ones before the end of January.

Reservoirs
at El-
Obeiyad.

Supposing the means of economising the water perfect, the amount falling in rain is insufficient to irrigate for agriculture one-fifth of the area of Kordofan. Dokhn requires little water, but much of the crop dies annually for want of it.

In the south of Kordofan, where more rain falls on the mountains, the case is different. The rainy season is said to last six months in Takalla, and the soil being more tenacious, enables water from wider areas to drain into the general system. For example, Khor Abu-Hable rises in Dar Nuba, and flows 190 miles before it sinks; and during the rainy season running water is found in its course for days together. It is even said to have at times found its way to the Nile.

Water
supply in
the south of
Kordofan.

Khor Abu-
Hable.

In its course this Khor forms three small lakes, El-Birket, El-Rahad, Shirkéleh, which cover areas of about 2, 4½, and 6 square miles respectively.

Lakes.

El-Birket dries up as the season advances, but water can always be found by digging a few feet.

El-Rahad becomes entirely dry some years, while in others a little water remains on the surface until the beginning of the rains.

Shirkéleh generally becomes dry before the Karfi; in all these basins water is found at the depth of from 6 to 10 feet. Along the whole course of the Khor, up to 32° longitude, water is found by digging 6, 10, or 13 feet in the bed of the torrent.

Between the Khor and the mountains on the south, water would probably be found at similar depths; but the country, though much richer than Northern Kordofan, is uninhabited because unsafe.

Cagmar, Abu-Harraze, Bara, and Melbeis are depressions, where the surface of the ground is so near the impermeable

stratum, that water is found in abundance all the year round, at depths of from 3 to 20 feet.

Water at
Bara.

The area of the basin of Bara, as well as that of Melbeis, is not more than 10 to 20 square miles; that of Cagmar and of Abu-Harraze not more than 40 square miles, at a liberal estimate.

These basins are important as water stations for passing caravans, and furnish water to the villages for many miles round.

Banks of
Nile.

Banks of Nile.—The region lying on the west bank of the White Nile, though not in Kordofan, may be here touched on; it includes a large tract of alluvial land, usually watered by the inundations, and is as fertile as Lower Egypt. Not one-fourth of this is cultivated, but it all should produce two crops a year.

Products.

Products.

The following is an approximate estimate furnished to the Governor of Kordofan by the merchants in 1871:—

Consumed yearly in the Provinces—

Dhura and Dokhn	....	....	400,000	ardebs
Sesame	....	....	5,000	"
Fouli Kordofani (peanuts)	....	....	500	"
White beans	....	....	2,000	"
Wheat	....	....	300	"
Dried bamieh (okra)	....	....	200	"
Salt....	....	....	3,000	"
Onions	....	....	1,700	"
Tobacco	....	....	300	cwts.
Cotton (with seed)	....	....	500	"
Iron	....	....	1,000	"

Exported.

Exports.

Gum	....	....	from 35,000 to 70,000	cwts.
Feathers (Ostrich)—				
Owam (first quality, white)	....	....	40	"
Black	....	....	200	"
Rubda (mixed short female)	....	....	350	"
Abu-Hariba (from short young birds)....			2	"
Raw hides	....	....	7,000	hides.

Note.—These quantities include all the commerce in feathers in Cairo, of which much the larger part is from El-Obeiyad.

Corn.
Dokhn.

Corn.—Dokhn is the sole food of nine-tenths of the people, and they build their huts of its stalks.

It grows during the Kartf on sandy ridges, and requires

little water. It takes four months from planting to harvesting.

On a journey the grain is eaten raw, or simply boiled; in the house it is crushed between stones, mixed with water, and baked in thin wafers (kissera), or boiled into a thick soup (asida), with bits of meat or leaves. It is also made into a crude sweetish beer (merissa), which is drunk in enormous quantities.

The Dokhn is also produced north of the 13th parallel, and in the neighbourhood of lakes Birket and Rahad.

A succession of unfavourable years for Dokhn caused a famine some ten years ago, and many people died of starvation.

The quantity of Dhura produced is small as compared Dhura. with that of Dokhn, and comes chiefly from the mountain districts.

Cultivation is performed in a most primitive manner with hoes and instruments for making holes in which to place the Dokhn. When ripe the ears are broken off, dried, and beaten with sticks to separate the corn, which is finally winnowed by small fans.

Sesame, wheat, bamieh (okra), onions, cotton, and tobacco are cultivated in the districts where water is most abundant, but owing to the want of the latter the crops are insignificant.

Salt.—Salt is produced by evaporation from three groups Salt. of wells in lat. $14^{\circ} 20'$, long. $30^{\circ} 45'$; it is dark coloured and bitter.

Iron.—There are two ore beds, one almost 60 miles to Iron. the north-east of El-Obeiyad, and the other about 50 miles to the north-west. The ore is brown hematite, and is found in small fragments at a little depth in the sand. It may exist in large quantities. This iron can never be worked economically, as there is no flux in the country, material for building furnaces, or fuel; nor could it be shipped with profit without a railroad.

Gum.—The best comes from the gray-barked acacias Gum. (hashab) which abound in East Kordofan, between latitudes $12^{\circ} 30'$ and $13^{\circ} 30'$. Tafara is the chief point for collection. It is more or less abundant in all parts of the province. Considerable quantities come from Magen, in the north-west.

There are immense forests of red-barked acacia (latch) in the south; the gum is of a certain value, though inferior to that of the gray bark. Other gum-producing acacias are scattered over the province in large numbers.

It appears that the gum forests of Kordofan are not worked to anything like their capacity; the labour of gathering it is tedious and unremunerative.

Baobab
trees.

Baobab trees (*Adansonia digitata*), native name Hamre. These trees play an important part in the life of the inhabitants. Their northern limit is a few miles north of El-Obeiyad. The tree is 70 or 80 feet high, and the trunk from 30 to 40 feet in circumference, the leaves resemble the sycamore leaf. In addition to its fruit it is valuable as a reservoir for water, many trees being capable of holding 20,000 gallons, and are filled by the people during the rains.

Ostrich
feathers.

Ostrich feathers mostly come from Darfur, El-Obeiyad being merely the collecting station. Ostriches are seldom seen in Kordofan, but are numerous west of the mountains of Kaggā. With care, however, ostrich culture in Kordofan ought to be most successful.

Cattle.

Cattle.—The raw hides come from the Baggara, and the slaughter-houses at El-Obeiyad.

The herds of the Baggara are large, and the cattle of excellent quality, though they do not seem to be very fertile, and yield but little milk. They are of the humped variety seen throughout the Sūdān, are docile, and the bulls are trained to the saddle and to carry burdens. These cattle seem to have a capacity for living with little water. It is said they require drink only every second or third day. This circumstance gives large areas round the wells available for grazing. Prout estimates the total grazing ground of the Baggara thus available at about 4,000 square miles, and that there are on it about 100,000 head of cattle.

It must be remembered, however, that the vegetation is not renewed by constant rains, and the cattle have to subsist on the herbage which grows during the Karif.

In northern Kordofan the cattle are few in number, and cannot be counted on as one of the resources of the country.

Camels.

Camels.—Those of the Kababish are to be counted by tens of thousands, and camels are also plentiful among the Hamid Arabs and the Hamre of the north-west and west. They are very scarce among the village people of Kordofan, and cannot be bred successfully south of latitude 13° or 13° 30'. South of this they are degenerate animals, without speed or endurance, so that there are none among the Baggara, where, on the other hand, a few thousand horses are to be found.

Horses.
Goats,
donkeys,
sheep.

In the villages of Kordofan are goats, donkeys, and sheep.

Commerce.

Exports.

Exports.—The value in Cairo of the exports from Kordofan was, in 1877, approximately :—

Commerce.

Gum....	....	£55,000
Raw hides ....	....	2,500
Ostrich feathers	....	75,000
		132,000

The ivory trade was never great, and is now dead.

Ivory trade.

Imports approximately :—

Imports.

Cotton fabrics	....	£40,000
Other imports	....	10,000
		50,000

Among the latter are included cutlery, metal work, liquors, tobacco, sugar, rice, coffee, glass, beads, &c.

Large quantities of cotton fabrics pass through El-Obeiyad to Darfur.

Climate.

The year in Kordofan is divided into three seasons of varying durations and ill-defined limits.

1st. The karff or rainy season.

2nd. The shitta or winter.

3rd. The seff or summer.

The karff begins early in June. Some hot afternoon, dense clouds appearing in the south, will bring a heavy shower of some hours' duration. After this days may pass without rain, and the wind will probably not settle in the south and south-west before July. From this till late in September showers may be expected any afternoon, but probably only every third or fourth day. They cease at the end of September or the first week in October.

During these four months the temperature is remarkably uniform the Centigrade thermometer indicating :—

		Wet.	Dry.
At 7 A.M.	....	23°	25°
„ 9 „	....	24	28
„ 1 P.M.	....	24	32
„ 3 „	....	24	33

The wind is almost constantly from the south and south-west, and large masses of cumulous clouds overhang the sky.

Sickness and Mortality during the Rainy Season.

Notwithstanding the moderate temperature, the weather is very oppressive ; even the strongest are sure to be Sick-

ness.

attacked sooner or later by fever. This is intermittent, and generally of a low typhoid character. Almost none but the native escapes; even Arabs and Turks, who have been in the country for years, expect an illness towards the end of the rainy season.

The mortality is very great; Major Prout lost 6 per cent. of the men under his command in four months, though they were well sheltered and attended to.

Major Prout says he does not consider the climate of Kordofan, during the rainy season, positively dangerous to those persons who can take care of themselves; but, as Dr. Livingstone has written, "men may escape death in an unhealthy place, but the system is enfeebled, and life reduced to its lowest ebb."

Winter.

Winter.—The wind is changeable towards the end of September, and often blows from the north, while high light clouds take the place of the cumulous masses; by the middle of October the wind is settled in the north, and continues to blow steadily from that quarter during the winter.

The thermometer slowly falls. The means of a number of observations in November are:—

	Wet.	Dry.
7 A.M.	16°	24° Centigrade.
9 „	16	25 „
12 N.	20	30 „
2 P.M.	21	32 „

The means for December—

7 A.M.	15°	18° „
12 N.	21	31 „
3 P.M.	24	34 „

The means for January and February—

7 A.M.	12°	15° „
1 P.M.	19	27 „
2 „	20	31 „

The influence of the dry air, north wind and fresh nights soon puts an end to the fevers of the karif; the winter is delightful.

Summer.

Summer.—In March the summer begins, and with it comes drought, sultry nights, and terribly hot days. In May the afternoon temperature is 41° Centigrade.

Altitudes above the sea level Compiled by Major Prout. Altitudes.

		Mean.	Altitude.
Berber	....	.... 1214·3	About 12 ft. above mean Nile.
Khartûm	....	.... 1422·3	Ditto.
Helba	....	.... 1381·7	
Bara	....	.... 1622·6	Wells 20 ft. deep.
El-Obeiyad	....	.... 1919·5	" 80 ft. to 130 ft.
Faki Dow	....	.... 1743·0	" 120 ft.
Hamaoni	....	.... 1734·0	" 110 ft.
Meguénis	....	.... 1820·0	" 80 ft.
Om Doban	....	.... 1704·0	" 15 ft.
Gumburra	....	.... 1853·0	
Tibri	....	.... 2072·0	
Om Rahali	....	.... 1994·0	
Shitangul	....	.... 1998·0	
Abior Tiné	....	.... 1789·0	
Abû-Senûn (Hella)		1928·0	

El Obeiyad.

El-Obeiyad has a population of about 35,000 inhabitants. Its houses are mostly built of burnt brick, and from a distance it has a picturesque appearance, being surrounded by trees on all sides. The town has a number of shops, and many Greek and other merchants live in it. There is a Roman Catholic Mission, a church, and good schools.

Bara.

Bara is a pretty town, and is surrounded by excellent gardens, where many kinds of fruit and vegetables can be bought.

DARFUR.

GENERAL DESCRIPTION.

DARFUR proper, or the country of the Fors, is, according to the assertions of the inhabitants, the territory comprised in the central group of mountains of Jebel Marrah and its offshoots. But in a wider sense Darfur may be taken as extending between latitudes 10° N. and 14° N., and longitudes 22° E. and 28° E. General description.

The geological formation is very varied ; in the west the Geological formation.

E

mountains show a volcanic origin ; in the north and south granite and sandstone are the prevailing rocks ; in the east the soil is sandy and contains a quantity of iron which is worked to a small extent.

Rivers. There are no rivers which flow all the year, and in the dry season water is very scarce. The wells are at great distances apart (30 or 40 miles), and the people are dependent to a great extent on the *Adansonia (Baobab) reservoirs, and water melons.

Inhabitants. The inhabitants consist of the Darfurs, chiefly in the west ; the Homr Arabs in the north ; the Bertis Tukruri in the east ; the Risezat in the south-east ; while in the south the Baggara Arabs and Tukruri are mingled. The Arabs have not mixed to any extent with the other tribes, who are more or less negroes. The population is said to be over a million, at least half of this number being Fors.

Topography and Geological Formation.

Topography and geological formation. In the east and north-east granite predominates, with the exception of a strip between Foga and el-Fasher, where red and white sandstone crop up.

In the north Wadi Millit and the hills in its neighbourhood are of gneiss. To the north-east of this, granite again occupies the chief position at Saya, whilst still further north Jebel Tagabo is of sandstone.

Jebel Medob. Jebel Medob contains both sandstone and granite ; this group has been much distorted by volcanic agency, and beds of lava are to be seen in all directions. To its south-west lies Bir em-Malha, an extinct crater which, to outward appearance, is an insignificant hill, but which has a depth of about 150 feet. Here is a small lake strongly impregnated with alkaline matter, while sweet water springs issue from the sandstone and granite declivities.

The greatest elevation of Jebel Medob does not exceed 3,500 feet, and the plateau between it and Jebel Tagabo is about 1,200 feet.

Jebel Marrah. The Jebel Marrah group is also of volcanic origin ; lava and granite are to be found everywhere ; but there is no sandstone ; small peaks of pink granite crop up here and there between the mountains and Fasher.

About Jebel Turah, one of the offshoots of the main group, the height of the plateau is about 4,400 feet, whilst the peak itself is about 5,500 feet.

Running from the main group in a westerly direction for a distance of 30 or 40 miles, is a huge dyke of white quartz with a plateau of sandstone raised some 300 feet above the

* See Report on Kordofan, page 62.

plain, which is itself about 3,200 feet above the sea level. To the south-west of Jebel Marrah the plain is about 4,000 feet above the sea, and the main peaks of the group rise to an altitude of about 6,000 feet.

The inhabitants report a large lake of brackish water ^{Salt.} from which salt can be obtained on the north-eastern part of the mountain; while at a day's journey to the west salt is also found at Carunga, and the Wadi Burka is strongly impregnated with soda.

In all the depressions sand rich in iron is met with, and ^{Iron.} is used by the inhabitants for the manufacture of the metal.

In a southerly direction from Jebel Marrah there stretches a broad alluvial plain which is dotted all over with peaks of granite, giving the impression of a range of mountains buried all but their highest points. This plain falls rapidly towards the north-west and south-east, and the whole country has a constant fall towards the east and south-east.

On the road from Dara to Shakka, not far from the latter place, there is an isolated tract of sand about 40 miles long and broad, here water melons are the chief production.

The road from Shakka to El-Fasher, for three days, passes through a dense wood where the soil is of sand and clay mixed; it then debouches on a sandy steppe country which stretches up to El-Fasher.

Water Supply.

In the eastern part of Darfur the wells are of a considerable depth and at great distances from each other. ^{Water supply.}

This part of the country is described by Gordon as "most miserable—a sandy, bush-covered desert—quite useless for any food purpose, with no water for distances of 40 or 50 miles." The deepest wells are at Karnak-Foras where water is only reached at 230 feet. At Brûsh, on the El-Obeiyad road, and on the road to Towaîsha, the wells average 100 to 130 feet. In Fasher the wells are of no great depth, and before the beginning of the rainy season water is reached at 35 feet. Here the Wadi system begins; valleys in which the drainage from the north and north-west flows to lose itself in the wide plains to the south. At Towaîsha, as well as throughout the portion of Darfur under consideration, the wells pass through layers of marl and chalk which renders the taste of the water unpleasant.

The nearer one approaches the central group of mountains the less is the depth at which water is found; at 3,200 feet above the sea it is found by excavating in the sand, but at 4,000 feet there is running water which

becomes more abundant still further to the west of Jebel Marrah.

Drainage of
Jebel
Marrah.

The drainage from Jebel Marrah flows to all points of the compass. On the north and north-east it is taken by the Wadi em-Milkh (or Malik), which debouches at Debbah on the Nile; on the east by the Wadi el-Koh, which further on is lost in the plains to the south; on the west there are the two great Wadies of Barreh (or Turah) and Azûm, which both are branches of the Wadi Cadja. The natives assert that the water in these three last is so plentiful during the rains, that crocodiles and hippopotami are common, and fish are in abundance.

A great valley, the Wady Gendy, has its origin on the southern slopes of Jebel Marrah, and probably runs into the Bahr el-Arab; whilst those already mentioned on the east are likely to be affluents of Lake Tchad.

To the south of Darra the watercourses are insignificant. Wells are usually found in the small depressions where rain water collects, but this becomes scarce in the dry season.

During the Karf, the southern portion of Darfur becomes a huge lake and impassable.

Inhabitants.

Inhabitants.

The total number of inhabitants may be roughly estimated at 1,500,000, of which half are For, 500,000 Arabs, and the rest Tukruri and Fellata.

The sandy wastes to the east of Darfur are chiefly occupied by the Tukruri and Berti tribes, mixed races of warlike tendencies, to which belong the Leopard tribe, that gave Gordon a certain amount of trouble.

To the north of these are found Homr Arabs, who occupy themselves in camel-breeding; while to the south Tukruri and Arab races, chiefly Baggara.

North of Fasher, Tukruri and Zyadieh Arabs appear; and south are the Fellatah, and further south the Baggara.

The Marrah Mountains are exclusively inhabited by the For, and further west we again find Arabs occupying the northern districts, the negro race of the Masalit the central, and the Baggara the southern.

The Arab population have, as a rule, kept themselves unmixed from the For, the Tukruri, and the other races. The Homr tribe originally came from Morocco.

There is, in addition to the above, a nomad tribe called the Zoghawa, but these are of negro extraction, and have only taken up the wandering life.

Agriculture.

Agriculture.

The country may be divided into three sections with

reference to the vegetation, i.e., the eastern zone of sand, the central mountains, and the western zone.

In the eastern zone, corn growing, in the shape of Dokhn and a little Dhura, is the chief industry. A small quantity of sesame, cucumbers, pumpkins, and water melons are also grown. In certain depressions of the ground, where the presence of clay gives a stronger soil, cotton is produced, but in no great quantity.

The northern part of the country is almost uncultivated ; and in the west agriculture is pretty much the same as described for the eastern portion, except that, owing to the greater quantity of water, more vegetables are grown.

The central mountainous district is the richest, and accordingly the most thickly populated. Small terraces are formed all over the slopes of the hills, upon which gardens are laid out. Here wheat, dokhn, dhura, sesame, pumpkins, and melons are grown. In the small water-courses in the valleys onions are planted during the dry season, and here also honey of very good quality is collected.

The cotton grown is excellent. Arabs manufacture from wool a coarse stuff, but the Fors are ignorant of the process of turning this raw material to account.

The production of salt is also carried on.

Occupations.

Occupations.

Camel-breeding is the principal pursuit of the Arabs in the north and east of Darfur. North of 14° latitude the camels are very numerous ; those at M'Badr, the headquarters of the Homr Arabs, have been estimated at 30,000 head ; those at Millit belonging to the Zyadieh tribe, at least at 10,000 ; and a similar number at Saya. Further west those of a tribe called Mahamid are countless.

Camel breeding.

The Arabs who breed camels have no other industry, and have even to buy the corn used in their households, which, with camel's milk, satisfies all their wants.

In the south, among the stationary inhabitants, cattle and sheep are to be found.

The cattle are of two kinds ; those with humps and those of the so-called African species, with long horns. The former are compact, well-made animals, and become very fat ; the others are not worth much.

The sheep have but little wool, but their flesh is good ; among the Zogharda there is a species with long curly hair.

Goats abound everywhere.

Goats.

The Baggara Arabs confine themselves to breeding cows.

Horses.

Horse-breeding is only carried on by the Mahamid tribe, while the Homr Arabs obtain theirs from Kordofan. They are small in size, but very strong, and are said to be able on an emergency to travel for 60 hours without water.

There is very little import trade, but ostrich feathers, ivory from the south, and damûr cloth are yearly sent into Kordofan.

Ironwork.
Tanning.

The iron work of the Fors is good, and tanning is carried on to a small extent.

Currency.

In Darfur the currency is curious. Forty small pieces of damûr cloth about a foot long and four inches broad = one white cloth, two of which = one dollar, or 3s. 9d. to 4s. 2d.; a small blue cloth is used to represent half a dollar.

The standard white cloth is called a Tob, the blue cloth Farachieh, and the smallest pieces of cloth Rubieh.

An ox costs	....	....	....	3	to	6	dollars.
A sheep costs	....	....	....			$\frac{3}{4}$	dollar.
A goat costs	....	....	....			$\frac{1}{2}$	"
A good riding camel	....	....	....	50	to	70	dollars.
A pack	"	....	....	25	"	30	"
A horse....	....	....	....	50	"	60	" but
sometimes a good horse fetches				300	or	400	"

The slave trade was, before Gessi's campaign, one of the chief occupations of the inhabitants. Large expeditions used to proceed across the Bahr el-Arab, returning with slaves and ivory.

*Manners and Customs.*Manners and
customs.

The Arabs are, for the most part, great hunters; they go out after ostriches to the desert, for five or six days at a time, in small bands with about 10 camels. They are also warlike, constant feuds taking place either between the Arab tribes themselves or with the village-dwelling people; the *casus belli* being usually cattle stealing or some such provocation.

Truth is little known among them, and immorality universal, in consequence of which latter there is much disease.

The Fors are clean and industrious. On nearing their country, they are to be seen assembled under trees, spinning, weaving cotton, or plaiting mats; the children being employed in herding the cattle. On the women falls the heavier occupation of grinding corn and carrying wood and water.

The Fors are not particular in the matter of food; corn

is the main article of consumption, and they drink quantities of "merissa." On festivals they make a compound of meal, water, and a gravy made from meat, and flavoured with pepper. They occasionally add roasted grasshoppers or caterpillars.

They are religious and even fanatical. In every village there are several faki, who teach the children and perform the office of scribes for the older part of the population.

The Fors live in tokuls or conical huts, five or six of which laid out in a circle form a habitation.

It is a curious circumstance that very few foreign wares are found among the Fors. Instead of these, they have home manufactures of their own, which suffice for the wants of the mass of the population; the chief people alone using imported stuffs.

As regards clothing, the men wear a large mantle and trousers, but have their heads and feet bare. The women use a piece of cotton stuff, which they throw over their shoulders and make fast about the hips. Clothing.

Darfur under its former Government.

When under the rule of its own Sultan, Darfur was divided into four provinces, which answered to the four quarters of the compass. Darfur under its former government.

Dar-er-Rih (north), Dar-es-Soba (east), Dar-es-Said (south), and Dar-el-Gharb (west). Each province was governed by a "Magdomm," who had three or four "Chotias" to assist him; and each village had its own "Milik," or headman. These villages were united in groups, the names of which corresponded to those of the Chotias.

There was no regular system of taxation; but each Magdomm carried it out as best he could.

In each province there was a kind of head collector called "Abu-el-Gabân," who had underlings in every village to gather the taxes.

In case of difficulty, they got assistance from the "Abides-Sultan" (Sultan's slaves), who were scattered through the land. These were in reality soldiers, who, to avoid expense, were quartered in the various villages.

In order to give some idea of the distance of Darfur from the civilized world, it may be mentioned that the expedition under Colonel Mason in 1874-75 took 147 days to reach Fasher from Cairo. They had, however, a large caravan, and were delayed for some time at Dongola. The return journey *via* Khartûm was done in 96 days.

Towns and Villages.

Fasher is the chief town. Colonel Gordon in 1877 Fasher.

describes it as a most miserable place, though once a populous and thriving town under the Sultans. (See page 116 for more detailed description.)

Darra is the second town in Darfur.* Mr. Wilson says it is well fortified by a stone wall, which has a tower at each corner; the walls are massive, and there is a deep trench outside the wall. The fortification forms a square, each side of which is a quarter of a mile long. Inside are the Government magazines and barracks. The townspeople live in straggling lanes of huts, irregularly built, to the south and east of the citadel. In 1880 the houses were being gradually rebuilt in a more substantial manner of brick. There is a daily market, where meat, milk, merissa, vegetables, beads, and odds and ends are sold, and which is attended by all the tribes in the district. In 1881 the wakil of Darra was Sugul Bey, and the commander of the garrison Hassan Effendi Bimbashi.

Towaisha. *Towaisha* is a collection of large villages, and lies at the end of a valley running north.

Shakka. *Shakka*.—Gordon describes *Shakka* as quite a town, and a much larger place than Obeiyad. It was at one time the headquarters of slave dealing.

EQUATORIAL PROVINCES.

Up to the year 1877 the Negro countries of Egyptian Africa were under a separate administration to those of the Sûdan, which were inhabited more or less by Arab races. In this year all the provinces from the first cataract on the Nile, southward, were united in one administration under Colonel Gordon.

The countries of the negro tribes were now divided into administrative districts or *Mudirieh*, of which four were at first organized, and placed under the rule of Mudirs, who had their headquarters at one of the chief stations in each; while at the other stations, or *Seribas*, *Vakils* (overseers) or *Nassirs* (deputy-overseers) presided, who were under the control of the Mudir.

The four original Mudiriehs in question were: *Mudirieh Lado*, *Mudirieh Makaraka*, *Mudirieh Rohl*, and *Mudirieh Bahr el-Ghazal*. The latter, though properly not one of Equatorial provinces, is here placed under that heading.

* "Uganda and the Egyptian Sûdan."

The *Mudirieh Lado* comprised all the Egyptian stations in the country from Bohr southwards, bordering the Bahr el-Jebel, and extending to the most southern and eastern parts of the Equatorial provinces. Dr. Emin Bey is now Governor of this Mudirieh.

Mudirieh-
Lado.

Mudirieh Makaraka.—The headquarters of the governor were at the Seriba (station) Wandy. The road connecting this place with the White Nile leads from Lado westward through the Bari and Niambara country.

Mudirieh
Makaraka.

Mudirieh Rohl.—The seat of the Mudir was at Rumbékh to the west of the River Rohl; this place is also called Seriba Malzac.

Mudirieh
Rohl.

The road connecting the White Nile with this district leaves Shambeh (a station on the Nile, but included in the Mudirieh Rohl), and runs westward to Dufalla on the Rohl.

Besides a few stations on the Rohl, up towards the Makaraka country, there are also some isolated stations in Monbuttu Land, formerly under the administration of the Mudir of Rohl; and two other Seribas, Amadi and Buñi, to the east, on the River Géi (Ayi or Yei), which came under his jurisdiction.

Mudirieh of Ghazal.—This territory was not opened up till 1877, up to which time it was in the hands of traders in ivory and slaves.

Mudirieh of
Ghazal.

At the end of 1876, during Gordon's absence in England, Colonel Prout for a short time carried on the government of Lado, while Colonel Mason explored the Albert Nyanza.

Count Armfield succeeded Prout.

In 1877, Ibrahim Fausi, an Egyptian officer, was overseer at Bohr, and in September of that year was sent to administer the government in the Bahr el-Ghazal province. In 1878, he succeeded Prout as Governor of Lado, and was himself succeeded by Dr. Emin, now known as Emin Bey.

About this time the Mudirieh of Makaraka and Rohl were united in one province under Jussuf Bey, who, up to that, was Governor of Rohl; while Bahid Bey, hitherto Mudir of Makaraka, was recalled. In 1878, Gessi, in conjunction with Jussuf Bey, proceeded to Bahr el-Ghazal, of which province Gessi was soon after made Governor. He was succeeded by Lupton Bey.

In 1881, the Rohl Mudirieh and Monbuttu land were placed under Dr. Emin Bey's jurisdiction.

Rohl
Mudirieh
placed under
Emin Bey.

MUDIRIEH OF LADO.

The territory at present under the jurisdiction of Dr. Emin Bey comprises the countries bordering the upper

The Bahr el-Jebel. portion of the White Nile, or, as this part of the river is called above its junction with the Bahr el-Ghazal, the *Bahr el-Jebel*.

Boundaries of province. The northern boundary of the province is the White Nile between the mouths of the Bahr-Ghazal and Sobât rivers.

Transfer of Sobât district. The Sobât district formerly belonged to the Mudirieh of Fashoda, but in 1812 was transferred to Emin Bey's Government.

The western boundary may be taken as the River Rohl as far as it goes, and south of that all the Makaraka country has lately been included, and stations also organized in the Monbuttu land.

The eastern boundary is in no way defined; the province in this direction simply includes all the territory where it has been found advisable to establish stations garrisoned by Egyptian troops; its most easterly districts at the present time are in the Lattuka country between lat. $3^{\circ} 30' N.$ and $4^{\circ} 30' N.$, and in the neighbourhood of long. $33^{\circ} E.$

The southern boundary is marked by the northern shores of Lake Albert Nyanza, the Somerset river, or Victoria Nile as far as the station Mruli, and the territory of the King of Uganda, which lies to the north of the Victoria Nyanza.

Government.

Sir Samuel Baker had, before he left Egypt, constructed three military stations, Gondokoro, Fatiko, and Foweira. He had been unsuccessful in establishing a station at Massindi, in Unyoro.

Colonel Gordon established many more stations during his rule. At first three new stations were formed, one at Sobât for cutting off the slave trade; one at Shambah as a wooding station, and to bar the slavers' road from Rohl, and a small station at Bohr. In three years a network was established, so that no one station was at more than three days' march from another. Gordon withdrew the stations in Unyoro.

Emin Bey, the present (1882) governor, has several Mudirs under him. Each station has a wakil or civil judge, and a military commander, each of whom has a katib or clerk. A weekly post connects all the stations, and every three months a steamer should arrive from Khartûm.

The natives are taxed in cattle and grain, which they pay into the central station of the various districts.

The soldiers at the stations are mostly Makaraka men of

fine physique and cheerful temperament; they are all armed with the Remington rifle. The artillerymen are Egyptians, and their health is very unsatisfactory. Even the officers are now, in many instances, natives.

Each native village has to support a dragoman, who is responsible for the peace of the place and collects the taxes. They were formerly slaves of the slave dealers.

Crime is almost unknown.

Topography.

Topography.

The vast basin, in which the sources of the White Nile lie, is surrounded by a semicircular band of mountainous regions. To the east of the river this band curves away from the Abyssinian hills, and the neighbourhood of the Blue Nile, and has its apex towards the lake regions of the Equator.

Basin of
Bahr el-
Jebel.

Between these hills and the Bahr el-Jebel, in its course north of Lado, there lies to the east vast alluvial tracts, which, between Lado and Dufli, however, are succeeded by ridges of hills, where the mountain range strikes the river.

The alluvial flats are subject to the annual inundations of the waters coming from the higher ground, and, during the rainy season, are for a great part entirely under water.

Near the foot of the hills, the deposits washed down from the mountains produce sandy tracts, which give way to a deep alluvial clay, the characteristic nature of the soil between the lower course of the Bahr el-Jebel and the Sobât river. Moreover, while the sandy tracts are varied by undulations and fertile spots, the lower alluvial land is a low-lying flat expanse, entirely under water during the rainy season.

On the west of the Bahr el-Jebel, about 70 miles above Lado, a flat and park-like country gives way to a line of hills, which, running from the north-west, abut on the river at this point, and run parallel to it as far as Dufli; here they bend away to the south-west, leaving between the upper course of the river and the mountains some miles of open country.

On the east, the mountain spurs and ridges, which touch upon the river between Lado and Dufli, are bordered on the south by wide-spreading prairies and marsh lands, intersected by numerous watercourses (Khors) and dotted over with isolated hills.

The following is a more detailed description of the hilly country.

The district just described is held for the Egyptian Military Government by military stations, each with a garrison of stations.

10 or 20 men, and at one and a half to three days' journey apart from one another; the principal ones are as follows: Gondokoro, Okkela, Loronio, Tarrangole, Agar, Fadibek, Obbo, Laboreh (on the Bahr el-Jebel).

Stations. To the south of the hilly country there are the stations Fadyellu, Fatiko, Fabbo, Faloro, Dufii, Wadelay (the last two are on the river), Foweira, Magunga.

From Gondokoro towards Loronio. From Gondokoro towards the station Loronio, the country, for the first few miles, is a sandy flat, and then further to the east is succeeded by low hills of iron clay mixed with quartz, which gradually rise into the mountain spur known as the Lokoya. This group is composed chiefly of grey granite, and has many prominent peaks. Numerous watercourses run northwards; a great number of these are dry except during the rainy season, whilst others contain a certain amount of water all the year round, which is left standing in pools and depressions in the lower ground.

Water. This water is, however, frequently turbid and discoloured by the loamy deposits from the hills, and is not always drinkable.

Soil. In the valleys, the soil consists of a dark brown iron-holding clay, overlying granite detritus; the slopes of the hills are well wooded with acacias, and numerous other kinds of trees, including large quantities of bamboo.

Inhabitants. The country for about 30 or 40 miles east of Gondokoro is inhabited by various small clans of the Bari tribe, the principal among whom are the Liria.

From Jebel Oppone, at the eastern extremity of this group of hills, the land subsides into wide stretching flats, through which the several watercourses flow northward. The country at first is sparsely covered with groups of acacia trees, but towards Okkela becomes more wooded and park-like in appearance.

Water. Most of the khors hold no running water except during the rains, but there are many pools, stagnant lakes, and tracts of marshy ground. A few hours' rain, however, is sufficient to render the khors impassable. The water found in the standing pools is, as a rule, muddy, and much fouled by troops of wild animals.

At Okkela, the Khor Ginetti holds running water all the year round, and, during the rains is 5 or 6 feet deep; its waters are turbid and unpleasant to the taste.

Swampy flats. Vast swampy flats stretch away to the north of Okkela, extending to the Bahr Zeraf and White Nile. Immediately to the north of the Lattuka and Bari countries these flats are inhabited by the Berri tribe.

Berri tribe. Okkela is the first station reached in the Lattuka land. It lies in a fertile richly wooded country.

Okkela. From here a road runs to Bohr direct, but it is only

Road to Bohr.

available during the dry season. It passes at first through wide, grass-covered, treeless plains, but, on approaching the Bohr territory, runs into a bush country.

The western boundary of the Lattuka country is marked by the Khor Loddo, which separates it from the Liria district.

Running in a north-west and south-east direction from Loronio is a valley about 50 miles in length, and 8 to 10 in breadth. It is bounded on the east by the mountain spur known under various names, Larfit being the principal one. On the west the boundary is the Langia spur. The contained valley is the principal territory inhabited by the families of the Lattuka tribe. Valley of the Lattuka.

It is traversed throughout by the Khor Kohs, essentially a rain-water stream; empty at the dry season, and, during the wet, fed by numerous rain-water channels from the adjacent mountain slopes. Many small hills crop up here and there through the valley; these are frequently flat-topped, and, in such case, crowned by the huts of the inhabitants. Khor Kohs. Water.

The soil of the valley is in part composed of iron-clay, but there are also tracts of sand, marsh, and yellow loam.

The vegetation is luxuriant, and large varieties of trees clothe the slopes of the hill.

To the north-west and north of Lattuka land lies the district of the Berri tribe; to the east, at about three days' journey distant, the mountains of the Irenga tribe. In this direction is the broad valley of the Khor Tu, a stream of large dimensions during the rains, but of little importance, though constantly running during the dry season. The country further to the east has not been explored, but there is reported to be another river of much greater importance with a large and constant stream in that direction. Irenga tribe. Khor Tu. Rivers.

Towards the southern extremity of the valley the country is covered with large masses of rock, and the soil is a deep red.

The end of the valley is closed in by ranges coming from the south-west and east; and, passing from the Kohs in a westerly direction, the country of the Shuli tribe is entered upon.

Station Agarú is situated in this neighbourhood, here there are several permanent streams flowing southward; these unite in the Khor Okorro, which, it is said, loses itself in a marsh still further to the south. Station Agarú. Water.

The mountain country is of granite intersected by deep ravines; in the villages there is a deep red clay formation, and in places this is mixed with loam and sand. The hills are thickly wooded. Soil.

Agaru, a
sanatorium.

Agaru is situated at a height of about 3,700 feet above the sea, and forms a species of sanatorium for the inhabitants, for which it seemed well qualified.

From here to Fadibek there are a succession of ridges, valleys, and marshes, with one or two permanent streams running southward. There is much bush, high grass, reeds, and bamboo.

Fadibek is the chief station of Shuli land; the whole country to the south-east is known generally as Lango land.

Station
Fadibek.

Fadibek is at the southern limit of the group of mountains; at this point they cease, but from the peaks lying eastward towards Agaru, numerous spurs are thrown out in a north-west direction. Various isolated groups and peaks of considerable height crop up between this and the Bari country to the north, the most notable being Jebel Okkiri, which has a height of about 5,000 feet above the sea level.

Jebel
Okkiri.

The gentler slopes of the spurs lying to the south-west of the Lattuka country are rich pasture grounds, and present a park-like appearance.

Country
between
Fadibek and
Obbo.
Water.

The country between Fadibek and Obbo is diversified in character; undulating prairies, swampy bottoms, woods, and park-like tracts succeed each other: numerous khors run towards the Bahr el-Jebel, but what water is available is generally thick and turbid.

From Obbo
to Laboreh.

Between Obbo, which is the most northern station in the Shuli country, and Laboreh the land at first falls to a low-lying, and, in places, swampy district. It then rises again to the range of hills which borders the Bahr el-Jebel between Dufi and Laboreh.

Prairie
country
south of
Fadibek.

To the south of Fadibek the high ground gives way to a vast extent of undulating prairie. Solitary hills start up here and there, while the ridges bordering the Bahr el-Jebel throw out a spur in the direction of Faloro.

The prairie lands are in parts succeeded by stretches of bush, but otherwise present open flats, with few trees. Numerous khors, some holding permanent water, intersect the lower grounds, while in other places there are interminable swamps. These districts are mostly uninhabited and more or less impassable in the wet season.

Population of District east of Bahr el-Jebel and between latitudes 5° and 2° N.

Tribes.

The chief tribes are as follows: Commencing from the north, the Berri, the Bari, the Lattuka, the Shuli, the Madi; to the north-east of the Shuli the Irenga; the Lango to the south of the Shuli; this latter comprises the

country of Umiro, which has its northern boundary four days' march south south-west and south-east from Fadyellu. It is made up of numerous clans, with separate dialects, and called Kidi by Speke. In the south-east the inhabitants of Lango land are nomads.

To the east-south-east of Fadyellu lie the Dyahle districts, and beyond that the mountainous country of the Lobbohr who speak the Shuli dialect.

To the north of Lobbohr is the Lorehm country, also called by the inhabitants Adieh land. It is very populous.

To the east of the last named follows the Koliang country; and to the east-north-east of this the Bognia district.

Beyond Lobbohr is the Termajok, and to the north of Koliang the Rohm country. None of these latter countries have been explored. Countries to east not yet explored.

THE BARI TRIBE.

Mr. Felkin in "Uganda and the Egyptian Sûdan," describes the Bari tribe as inhabiting villages, the picture of neatness. The huts built of tiger grass, with large eaves and very low doors. The Bari tribe.

Their cattle constitute their chief wealth, and they value them above their wives and children.

They are a fine muscular race, the men better looking than the women.

Smallpox is very prevalent among them; but it is believed it will be stamped out by inoculation. They themselves have discovered this method.

Small shells strung on string are used as money.

They appear to have no religion, belief in a Supreme Being, or a future state.

That portion of the Bari tribe proper which inhabit the eastern bank of the Bahr el-Jebel, are an industrious people. They employ themselves in the cultivation of sorghum and cattle breeding. Their herds are very numerous.

The Liria.—These are a branch of the Bari living to the east, up to the borders of the Lattuka country. They are a fine race, but of thieving propensities; they carry their raids into the Berri country to the north, and that of the Kiri to the south. The Liria.

They have also gained a reputation for being "rain-makers," a calling much in request among the native tribes.

They are industrious in the cultivation of corn (sorghum), but pay little attention to that of tobacco, the best of which comes from the Lattuka district.

Hunting is a very profitable employment, as antelopes and elephants abound, though beasts of prey are not very numerous. In the dry season hunting excursions are made into the low-lying country to the north, where countless herds of elephants are to be found.

THE LATTUKA TRIBE.

Lattuka
tribe.

The Lattuka appear to be a totally distinct race from their neighbours both in appearance and language. They are a slight well-built people as regards the men, whilst the women are of a strong and thick-set build.

The women far outnumber the other sex, and perform all the heavy portion of the manual labour, such as carrying water, or material for constructing huts, and tilling the ground.

Dwellings.

Dwellings.

The huts are built of grass, straw, palm leaves, &c., have doors about 2 feet 6 inches high, and are generally packed closely together and surrounded by filth, but are clean inside. In the hilly country they are grouped on tops of hills, and surrounded by thick hedges and palisades to keep out the wild animals. Each village has its watch tower.

The nation is divided up into small tribes or classes under different local chiefs, who generally obtain their influence by a reputed power for rain-making.

Manners and Customs.

Manners and
customs.

The inhabitants wear little or no clothing. The men carry numerous ornaments of iron, copper, and brass, and a helmet made of hair, covered with ornaments, and topped by a plume of ostrich feathers. Every man has several wives; the price paid for each is, where cattle are plentiful, 22 cows, elsewhere 20 goats or sheep, or, as an equivalent, 40 spear heads, or 40 spade heads.

Taxes to the chiefs are paid in corn, sesame, honey, leopard skins, cows and ivory.

Arms.

Arms.

The arms carried are three spears and a shield, bows and arrows are unknown.

Occupations.

Occupations.

Hunting, cattle breeding, and agriculture are the chief occupations; but the two latter are sacrificed to a large extent for the first, which is followed with great zeal.

Basket making and the manufacture of tobacco are also among their industries.

Agriculture.

Agriculture is neglected for hunting, although the ground is most fertile. The soldiers at the various stations cultivate sorghum, maize, earth nuts, water melons, &c. Agriculture.

The chief agricultural products are sorghum and (dokhn in the south), sweet potatoes, bananas, ground nuts, &c. The bark of the acacia tree is used for tanning.

Tobacco is much cultivated, and the best produced in the countries of the White Nile is considered to come from the Lattuka. It is known under the name of Kaniett, and the finest is grown on Jebel Molong.

Domestic Animals.

Cattle, sheep, and goats are found in great quantities. Domestic animals.

Wild Animals.

Elephants, buffaloes, giraffes, zebras, lions, leopards, baboons, hyenas, and antelopes form the great mass, and are all plentiful. The leopards are the most dangerous to men and cattle. Wild animals.

Snakes are also numerous.

Formerly there were great numbers of ostriches, but these have generally disappeared.

Crocodiles are found in the ponds and lakes, and fish are also abundant in such places.

In the lowlands about Okkela cattle, donkeys, mules, &c., do not thrive, probably from the absence of salt, and the impurities of the water.

Stations.

Tarrangole, the principal station, has been occupied by Dongolese for 25 years; it was a central depôt for ivory, but, owing to the warlike character of the natives, the slave trade never gained a footing. Stations.
Tarrangole.

Agaru, as mentioned before, is a species of sanatorium, being placed high up among the hills.

Okkela is situated in the low country on the borders of the marsh land, and is thickly populated.

SCHULI TRIBE.

This tribe are also good hunters, but not to be compared to the Lattuka. They only carry two spears. Corn growing is one of the chief occupations. Schull tribe.

Ostriches. They carry on a certain amount of traffic with the Lango people for ivory and ostrich feathers. There are great quantities of ostriches to be found on the wide savannahs of Lango land.

As in Lattuka, the number of women greatly exceeds that of the men.

The Schuli cultivate red dhura as well as the sorghum corn.

Ever since the station at Fatiko has been established, the Schulis have been loyal to the Government.

Towns.

Lado. *Lado*, the capital, is a well-built town; the divan, offices, mosque, and Government buildings are all made of burnt bricks, and roofed with corrugated iron, but have to be renewed every two or three years on account of the devastation made by white ants and worms. The streets are wide and straight, and there is a broad promenade surrounding the station; a clear space of 30 yards being kept between the houses and the fortification. There are large gardens outside the fortifications, where Arab and European vegetables are grown.

Irrigation has to be performed by the Shaduf.

There are three gates to the station on which sentries are mounted.

Gondokoro. *Gondokoro* has been practically abandoned; it only contains a garrison of 10 men. It is more unhealthy than Lado, and cannot easily be reached by water at all times of the year.

Foweira. *Foweira* is a small unhealthy station.

Transport.

Transport. The transport in the Equatorial provinces has still to be carried on by porters; ox wagons might be introduced, but elephant transport would be the most suitable and easily arranged.

Porters. The porters form squads of 10 to 20 each, with a soldier in charge.

The natives refuse to march at night partly from fear of wild animals, and partly from their belief in the evil influence of the moon.

They likewise object to start early in the morning on account of heavy dews.

The Mudirieh Makaraka.
Boundaries.

THE MUDIRIEH MAKARAKA.

Boundaries.—This administrative district lies to the west of the Niambara country, and is crossed by the 5th parallel of lat. N., and the 30th long. E.

The boundaries can only be approximately laid down, as many of the native inhabitants of these parts, favoured by distance from the centre of government, or by the difficulties of access, cannot be brought under immediate jurisdiction. The extent of the entire territory may be estimated at 70 miles from north to south, and the same from east to west. As arbitrary boundaries the following may be taken:—On the east the River Bibé, on the west the River Issu; that to the north somewhere south of the station Gosa, which belongs to the Mudirieh Rohl; while the chain of hills, forming the south-western horizon to the station Ndirfi, form the southern boundary.

Besides the above, the stations in Niambara land with the clans of some of the neighbouring chieftains are also included under the Government of Makaraka.

The Niambara stations used to form a refuge from the surrounding hostile tribes for caravans of ivory travelling from west to east.

Population.

The Makaraka people inhabit but a small part of the territory above described, but custom has given the name to the whole, from the fact that the Government finds the Makaraka much the most trustworthy of the tribes, and employs them accordingly as porters and in other employment. Population.

There are a number of other tribes who have been for much longer residents in the country, and are indigenous to the soil, distinguishable in manners and language, and who, apparently the remnants of more powerful negro tribes, are now, to a great extent, amalgamated and scattered in groups over the land. Such are the Liggi, Fadyellu, Abukáya, Abaka, Mundu or Mondu, Morú, and Kakuak tribes.

The Makaraka and Bombeh races came, scarcely 40 years ago, out of the far west, in the Niam-Niam country, and, as they say, from the districts of Kána and Kifa, situate to the north of the river Uéle (Welle).

Driven from their own country by internal wars, they wandered east, and after many years of warfare with the Niambara to the north, and the Kakuak tribes to the south, settled down peaceably in the midst of their neighbours. It was easy for the Mohammedan invaders to turn a population, composed of such varied materials, into slaves.

The province under consideration is one of the most densely populated of Africa.

The result of the foundation of the slave and ivory trades was the eradicating the hitherto sharply defined boundaries

of the various tribes, which now became scattered about the country, and formed into groups.

Although the nucleus of each tribe was located in a distinct district, yet numerous colonies from all the above-named races grouped themselves round the Government stations; and the Bari and Niambara were not exceptions to this, whether being driven from their own countries by famine, joining the home returning columns of porters from Lado, or taken by the Government for purposes of colonization.

The Liggi inhabit the eastern part of the province, between the rivers Yei and Bibú.

The Moru inhabit the north and north-west and the middle course of the Yei.

The Falyellu are south of the Liggi.

The Kakuak are more southerly still, on the River Yei.

The Abukaya are west of the River Yei, and are distinguished as the Abukaya Oigia and the Abukaya Oisila; the latter inhabit the north of the province west of the Moru.

The Mundu join the Abukaya Oigia to the west; their territory lies on the extreme south-west of the province, and they have many hamlets on the great watershed which separates the basins of the Nile and the Uéle rivers.

The Abaka joins the Mundu to the north.

The Makarata and the *Bombeh* tribes live in the midst of all these people, spread over a proportionally circumscribed space. They occupy principally the banks of the Torrú, a tributary of the Yei, but have also settlements on the River Mense, likewise a tributary of the Torrú. Only a small portion of the Bombeh tribe live among the Makarata, the remainder being settled on the tributaries of the Uéle river, south-west of the Mundu, and Abukaya-Oigia. The caravans of ivory from Monbuttu land, which pass along by the River Rohl to Dufalla, cross the Makarata country, the inhabitants of which are friendly to them.

Topography.

Topography. The Bari country is the first traversed by a traveller going from Lado towards Makarata; leaving the River Kuri and the picturesque forms of the rocky hills of Kunufi, a monotonous expanse of country lies to the west. In the distance appear some rocky hills, of which Germog to the south-west, and Laguhm to the north-west of the road are the most conspicuous. From Laguhm the country north appears to be an extensive monotonous plain.

The two elevations above-mentioned are connected by a series of low undulating hills.

Before reaching the western side of the Miré mountains, the uniformity of the country is broken by a few isolated features, among which are Jebel Kiddi, Jebel Bug, and Jebel Kokan, the latter of which is remarkable for its peculiar dome-shaped form. From here to the Miré mountains the country is covered with bush, which hides all view of them until in their immediate neighbourhood.

This bush-covered plain continues right up to the eastern slopes. Jebel Beriffa, over a spur of which the road passes, is a rugged picturesque mass of rock; it is at the northern limit of the Miré mountains, but on its northern side a series of unconnected rocky hills are scattered about. The road runs over a broad saddleback connecting these with Beriffa. Jebel Beriffa.

The western slopes of the range are also partially wooded, and in all directions fantastic masses of rock present themselves.

Here a magnificent view opens to the west and south-west over undulating plains, diversified by occasional hills, and groups of the Niambara villages.

While the Miré mountains present a uniform range, out of which rise single peaks, the Rego mountains are a connected series of prominent cones, united by saddleback depressions, over which several passes are to be found. The peaks of this range attain the height of about 2,100 feet above the surrounding country; the most prominent are named Luli, Kuyuh, and Kero. Rego mountains.

From Jebel Kibbi, the most northern elevation, a low spur runs towards the north; on the eastern side of which, in the neighbourhood of Rillek, there are a number of hot springs, the temperature of whose waters is about 58° Cent. The surrounding ground is of a reddish-brown colour, which points to the presence of iron, while ironstone crops up throughout the district enclosed by the two ranges of mountains above described. The water of the springs is clear and tasteless. Hot springs.
Ironstone.
Water.

The road over the Rego range is a rugged track among a confused mass of rocks and gorges, the pass through which is about 16 miles in length. Pass through the Rego.

The western sides of this group of mountains appear to slope gradually down to the plains, while the eastern are precipitous.

A winding path running down through thick woods soon leads to the western boundary of the Niambara. Their northern neighbours are the Madar; while on their southern frontiers lie the Kakuak and Fadyelli.

Leaving the Niambara country, whose eastern boundary is about 8 miles east of the River Bibja, the lands of the Moru and Liggi tribes are next entered upon to the west.

Country of
the Moru
and Liggi.

Water.

All this territory up to the River Yei is a monotonous expanse of rolling uplands, covered with bush.

In comparison with the Niambara district it is well watered, even in the dry season, by the numerous water-courses which find their way through the depressions of the country, partly to the Bibé, and partly to the Yei river.

Some of these streams are called by the name *silek*, taken from that of a species of tree which grows in their neighbourhood. This tree has a tall slender stem, and foliage totally distinct from the large leathery leaves of the bush vegetation. The stem of the *silek* resembles somewhat that of our fir, and is used by the natives for the roofs of their huts (*tukul*).

Country
between
Yei and
Kabayéndi.

The country between the Yei and Kabayéndi, the most western station, is watered by the River Torré; in character it resembles that described, and is covered with low bush, and occasionally taller trees. There are numerous small watercourses and depressions, which, during the rainy season are full of water.

The character of the country changes in the vicinity of the old Seriba Fadl Allah, where to the north and west mountains are to be seen.

Country of
the Mundu.

On the left bank of the Khor Baballa (a watercourse which is never dry), the country of the Mundu begins, and thence stretches away far to the west.

It is covered with bush, advantageously mixed with forest trees; while in some places during the dry season, the stiff stems of the grass, higher than a man's head, are a serious inconvenience to travellers.

Ingitterra
ridge.

Beyond the plains surrounding Fadl Allah, the hilly country begins to the north and west. The ridge Ingitterra to the north-east is about 1,600 feet high, and consists of five combined elevations. In its neighbourhood, as also about the hills of Kura and Langho, and to the west, the Abukaya Oisila are settled.

On the road to Mount Lofogo the hill of Ambe rises to a height of about 200 feet, and large forest trees cover the district about it.

Mountains
to north and
west.

Many of the hills are named after the resident chieftains, such as Lofoke, Koh, &c. Whilst to the south and east the country is a vast plain, with isolated peaks cropping up here and there, to the north and west there are ranges of mountains, varying in height from 1,000 to 1,500 feet above the surrounding country, some of the more prominent peaks being called Abba, Agallo, Agilbi, Adyuh, Assana, Issi, &c.

To the west of Lofoke there is much bush, and bamboos are found in the low-lying lands in the neighbourhood of Koh.

From Azigo to Kudurma the country is at first hilly, but afterwards falls into a wide plain, which is crossed by various low ridges, running north-west and south-east. As far as the hills of Labigo and Gangara travelling is difficult, as there is a great growth of bamboo, wood, and bush, and, having passed these, there are still many difficulties to contend with in the shape of watercourses and swamps.

From Azigo
to Kudurma.

The Mundi territory commences south-west of the Moku hill. Near Kudurma the topographical features consist in low hills and bush, alternating with papyrus-growing marshes.

From Kudurma to Amusei marsh land predominates; here is the extremity of the plateau which culminates in the hills above referred to; to the south and south-west of the plateau lies an extensive plain, watered by the River Mense, and inhabited by the Bombeh tribe.

Kudurma to
Amusei.

To the west and north-west is the land of the Abaka, a country characterised by ranges of high hills, intersected by valleys and tracts of low-lying ground. To the east of this district the station of the Chief Tomaga is of great importance in a hydrographical point of view, and will be referred to hereafter.

Abaka
country.

Between Hassan and Kudurma the country is very broken, and intersected by numerous streams, which are running all the year. The hills rise to a height of about 540 to 660 feet, and the banks of the streams are covered with a luxuriant growth, which include trees of great size.

Hassan to
Kudurma.

Between Kudurma and Konfo this country is very similar in character to the above; the passage of the Aire or Hire (the source of the Rohl) is difficult, and a rich vegetation is everywhere met with.

Kudurma to
Konfo.

At Konfo the hills disappear, and to the north, north-west, and south-west a bush-covered country is to be seen.

The district from Konfo to Gosa is flat alluvial land, bordering the River Aire; and as far as the eye can reach no mountains are to be seen. Great acacia trees tower over the bush, with which the plains are covered, and travelling out of the trodden path is almost impossible, owing to the tangled mass of reed-like grasses and vines.

Konfo to
Gosa.

To the west of Konfo the country, though not flat, has no hills of any great size, except towards the wooded district to the south of the Kudurma, where the rocks consist of gneiss and red granite. In the low land to the south-west of this, where some small tributaries of the Aire have their origin, there are large districts of bamboo.

West of
Konfo.

The western portion of the territory of the Abaka tribe is hilly, and intersected by many streams.

West of
Ansea.

West of Ansea there is a plateau, which forms the watershed separating the Aire and Roah (Meriddi) systems, the latter river originating in a prominent hill to the south, named Embe.

To the west of Bandura the hills are thinly wooded with bush, but covered with high grass, and in this direction lies the watershed, between the Meriddi and Issu rivers.

From the hill of Ngirna, near Bellédi, there is an uninterrupted view over the country to the west, which slopes down to the Issu, and at a distance of about 25 miles are seen the hills of Damvolo (Damvo), Baginsa, and Bonduppo.

South of
Ansea.

The country south of Ansea is a uniform undulating plain, with a few isolated hills appearing here and there, such as Embe, Guduku, and Bageda. There are numerous streams flowing southward, of which the Akka and the Garamba are the most important. The marshy natures of the smaller ones, however, make their passage difficult. The most prominent landmark seen from this part of the country is Mount Andgu, lying away to the south; but, with the exception of an occasional peak the entire country in this direction seems a vast plain.

Seribas
Wandy and
Ahmet
Agha.

The Seribas Wandy and Ahmet Agha lie in a hollow, watered by the Torr  river. From the south numerous streams run into the Torr , and between these are to be found most of the habitations of the Makaraka proper. This tribe call themselves Idio, a name given to them by the Niam-Niam. In their district there are two hills of gneiss, Gurmani and Lipako, which offer excellent landmarks for all the country to the south-east, in which direction the country gradually but continually rises, so that not only the range south of Ndirfi can be seen, but also the distant hills to the south-east, as Muga, &c., in the Kakuak and Fadyellu country, as well as those to the east and north-east, Jebel Gumbiri, and the peaks of the Rege range. From Ndirfi itself one can only see in a northerly direction as far as Deg s, a row of gneiss hills.

To sum up the topography of the Mudirieh Makaraka, to the north and west the country is hilly, to the south and east rolling plains.

COUNTRY SOUTH OF MAKARAKA LAND.

The country south of the Makaraka land had for many years been traversed by Arab traders, who carried on raids for ivory, slaves, and cattle. The splitting up of the negro race into small groups was necessary for the safety of their expeditions, which they carried on with the assistance of the more powerful chieftains, who extorted ivory from the

esser tribes, and in return were rewarded by a share of the plundered cattle.

In a southerly direction from the station Rimo lies the country of the Fadyellu. In character it is a flat, and, in places, a marshy district; on the higher spots a certain amount of bush is to be seen, and ironstone occasionally crops up. Slabs and masses of gneiss are strewn over the surface. Fadyellu country.

The miserable huts of the inhabitants offer a marked contrast to those of their northern neighbours, and the white species of Dhura is no longer met with.

Between the River Kabba and the Yei there are numerous watercourses running north-east, to join the latter river. Some of these are dry, others marshy; while in many a series of ponds are to be found.

About Dumunsu, beyond the fields of sesame, red dhura, &c., there can be seen in a semicircle, the hills of Korbe, Muga, and Ottogo; while to the west the high ground south of Ndirfi is visible.

The Yei runs through a broad undulating plain, traversed by many streams and deep watercourses. The land here is gradually but constantly rising towards the south, which gives an expansive view towards the north-east and north. The River Yei.

The Muga range of hills which runs from north to south, is from 1,500 to 2,000 feet high, and sends forth many streams from its western flanks.

South of the Muga the country falls towards the south into a wide plain, bounded still further south by groups of hills, of which Uado is the principal. On its northern slopes the huts of the Kakuak are to be seen.

To the south-west the hilly country lies, in which the River Yei rises; and to the east an undulating valley, shut in by a distant range of lofty hills.

Between Uado and Uani the country is very broken; hills, some of which reach 1,500 feet in height, alternating with valleys. Uado to Uani.

The natives of Uani and Ganda live for the most part on the banks of the Kinde, in a fertile and luxuriant valley. Date palms, bananas, and lofty green acacia trees abound.

South of Ganda many tributaries of the Bibé river are crossed, and the boundary between the Kakuak and Kalika tribes reached. Here also, in latitude $3^{\circ} 5' N.$, we come upon the watershed between the Nile and Congo systems. South of Ganda.

At Khor Haro, a short distance to the north of this district, a remarkable type of vegetation is met with in the shape of Elephant-ear tree (Schweinfurth's *Platyserium elephantotis*). Watershed between the Nile and Congo system.

Juice of
Euphorbia
poison for
arrows.

Country to
the south.

The district separating the Kakua and Kalika is a bare rocky mass of broken hills, with a sparse vegetation, but where a beautiful species of Euphorbia grows. From the milk-like juice of its leaves the natives procure the chief ingredient for the poison, which they, more than any of the other negro tribes, use for their arrows.

From the high plateau the country to the south is seen to be an undulating expanse, bordered to the south-west by high hills. At first the Dhura fields of the Kalika cover the southern slopes of the plateau, which are succeeded by steppes intersected by numerous watercourses running south-west.

Trees, bush, and high grass, which were universal in the Kakuak land, disappear, and their place is taken by a free open country; on the banks of the river alone is much vegetation to be found.

Grass and wood, the chief materials for the manufacture of huts, failing, we find the habitations of the Kalika made of straw.

The Kalika.

The entire district, especially in the south, bears evidence to the industrious habits of this tribe. Dhura fields are to be seen in all directions, and cattle-breeding is extensively carried on. The roads are also far superior to those in the other countries.

Cattle
breeding.

In the south of this part the hill of Abanga is a notable land mark; there is a certain amount of bush in the neighbourhood of Lemihn, and of forest trees in the valley of the Kibbi: otherwise the country is open and covered with short grass. The ground falls gradually to the west and south, and is more or less undulating, with various hills appearing in the distance.

Products.

The whole aspect is one of a rich fertile country. Dhura, beans, pumpkins, sweet potatoes are seen growing on all sides, and streams and rivulets with their accompanying luxuriance of vegetation water the land in every direction.

To sum up the topographical features of the country in question from Makaraka land to Lemihn. The northern and western portions consist of rolling plains with occasional series of low hills. To the east hills and a mountainous district. To the west in the southern part we again find rolling steppe country, bordered on the east by high lands.

MUDIRIEH ROHL

Mudirieh
Rohl.

The Mudirieh Rohl has several outlying stations in the Monbuttu country, where ivory is collected from the countries still further south. The route along the River

Rohl has always been the favourite one for the ivory caravans, and the only one safe from the hostile Niam-Niam.

From the Seriba Dufalla, where the road from Gaba Shambeli on the Bahr el-Jebel debouches, up the course of the Rohl to the Makaraka country, there are a number of small stations.

A Nassir (sub-inspector) with a few Dongolese soldiers are the sole occupants of these stations, which are on an average two days' journey from one another.

A small colony of comparatively friendly natives are settled in the neighbourhood of each, but the rest of the inhabitants have taken refuge at a distance from the river so as to avoid raids.

The Seriba Gosa is the first station north of the Makaraka country; the land in this district is marshy, but becomes firmer towards Sayadin, where it is covered with thick high grass. North of the latter station the river is called the Rohl, while to the south it is known as the Aire.

Country
about Gosa.

To the east treeless low-lying lands are visible, bounded by a range of cone-shaped hills which run in the direction of Sayadin. These hills are of granite and metamorphic rock, but chiefly grey granite: their highest points are about 3,000 feet above the sea.

The hills are well wooded, and many bamboos (*Bambusa Abyssinica*) grow in the neighbourhood. The soil is bare, except in the ravines and valleys among the hills, which are clothed with bush.

In the country lying west of the river a short light-green grass succeeds to the high vegetation of the swamp lands, and covers a large proportion of the province to the north. There is also a great quantity of red ironstone cropping up, the detritus of which makes excellent roadways.

Ironstone
for roads.

About Sayadin the Rohl has the local name of Yalo, so called after one of its tributaries.

Towards the north the country is principally low, and, in some places, wooded. Felspathic rock crops out occasionally, but there are no hills except at a considerable distance from the river. About the station of Lori some of the Lori-Moru negroes are settled, but the districts between stations are uninhabited.

Between Lori and Moffo the character of the country changes, and becomes much more varied by spreading woods and fantastically-shaped rocks, at the foot of which there is a rich vegetation.

Lori to
Moffo.

Thus on the slopes of Tyak a rank growth is to be seen in all the hollows, while at its foot magnificent palms tower above the lower shrubs.

Elsewhere there are stretches of meadows and trees, reminding one of English parks.

In this district there is a marked distinction in the vegetation from that in the Makaraka country. In the latter the trees are large, and have strong leathery leaves; thorns are seldom seen, while here the contrary holds good. The characteristics of the western banks of this part of the Rohl are low-lying treeless flats covered with grass and rushes, and it maintains its monotonous character up to Dufalla; all distant view shut in by woods.

On the eastern side there is a low range of hills inhabited by numerous clans, off-shoots of the Denka tribe.

Dufalla and
Rumbekkh.

Duffalla and Rumbekkh are the most important stations of the province; they are conspicuous by their palisaded dwellings, which are so often found among people of the Dinka race.

The main road branches off from Dufalla towards Bahr el-Jebel, and passes at first through the country of the Agar. Here there are no woods or meadows, but an open cultivated district with cornfields on all sides. It is most thickly populated, though the inhabitants do not live collected in hamlets, but in detached palisaded huts about the fields.

Rumbekkh.

Rumbekkh is the seat of the Mudir of the province; to the west the country is, as usual, inhabited by numerous small tribes or clans, and in many parts is covered with wood and tall grass; elsewhere it is monotonous and flat, with a few isolated hills.

Rumbekkh is a very large place, with an Arab population of some 3,000, and about 30,000 natives in the surrounding villages. The streets are narrow and tortuous; the town was once fortified, but the earthworks are now in ruins.

There are large gardens round the Seriba, and quantities of vegetables and fruit can be obtained.

At the Seriba Dyoht the Mudirieh of Bahr el-Ghazal commences.

Dufalla.

Dufalla.

The town is surrounded by a strong stockade and deep moat, and a few rusty cannon are mounted on its ramparts. The houses are built on raised platforms and surrounded by high fences of reeds. The streets are so narrow that two people can hardly pass each other, and the town is very crowded.

Round the Seriba there are large villages with a native population of about 1,500.

In the town the disorder, filth, and stench are beyond description.

The river here is about 50 yards wide, 15 feet deep, with a current of a knot per hour.

MUDIRIEH BAHR EL-GHAZAL

The boundaries of this province are but vaguely defined, but may be described as enclosing the entire district watered by the southern tributaries of the Bahr el-Arab and Bahr Ghazal. Bahr el-Ghazal.

Some of the earliest settlements of the slave and ivory trade were in Darfertit, the most western part of the province. These settlements were made by small resident traders known as Kalabas, who paid taxes to the native chieftains of the Kreedu tribe. Kalabas.

About the year 1854 trading companies from Khartûm began to arrive, and, accompanied by armed bands of Nubians, established stations all over the country, which became the hotbed of the slave trade. Slave-dealing stations.

The country of the Bongo (or Dohr) became their headquarters. This is one of the largest tribes, agricultural and industrious in their habits, and, being easily subdued, were soon bound down into vassalage and slavery by the slave dealers. The position of the Bongo country likewise favoured these settlements, as it was no great distance from the Meshera or highest navigable point on the Bahr Ghazal.

The smaller neighbouring tribes of the Dyur, Dembo, Golo, were soon reduced to vassalage in like manner, and the traders then established their out-stations at a greater distance towards the south-east in Mittu country, &c. But to the north-east they could make no impression on the Denkas protected by their impenetrable marshes; and were more unsuccessful still against the large, powerful, and warlike nation of the Niam-Niam lying to the south-west.

About the year 1870 the Egyptian Government undertook the administration of the province, with the avowed object of putting down the slave trade. The administrators, however, and the officers of the troops sent for the purpose, instead of carrying out this intention became themselves not only the open abettors, but also the most energetic traders. Egyptian Government undertakes administration of province.

And it was not till 1878, 1879, that the country was opened up, and the nefarious traffic put an end to by Gessi. Country opened up, 1878-9.

In the mean time what had once been a thriving population, living in a fertile country, and possessed of flocks and herds, was reduced to starvation and misery. By the

wholesale exportation of the women and children, and by the emigration of others to avoid the cruelties of the traders, the populations themselves were so thinned out, that many districts became totally uninhabited.

The Seribas, Ghattas, Idris, and Sebehr were among the principal stations of the traders, and were named after them.

Topography.

Alluvial
plain.

That portion of the province to the north-east inhabited by the Denka tribe, and included in the angle between the Bahr el-Arab and Rohl rivers, is a vast alluvial flat, little raised above the Bahr el-Ghazal river of which it is the basin. The soil of this region is an unfathomable clay, in places covered by wastes of sand about 10 feet thick. Great areas of forest are met with, and innumerable marshes, lagoons, and sluggish channels of water left by the annual inundations of the river. From July to the end of the rainy season a great part of this country is under water. In March the water is at its lowest level.

The inhabitants devote themselves exclusively to cattle breeding.

Steppe
country.

Bordering this alluvial plain is the foot of a steppe country which gradually rises towards the mountainous regions to the south. The line of demarcation between the alluvial and the steppe country runs close by the Seriba Ghattas in a north-west and south-east direction.

Here the borders of the huge tableland of ferruginous soil are reached, which, unbroken except by gentle undulations or isolated mounds of gneiss, gradually ascends to the Equator. This plain appears to cover the greater part of the centre of the continent.

Iron-clay
swamp ore.

The steppes are, in the Dyr and Bongo country, composed of a ferruginous soil known as swamp ore. This extends itself in broad plains and plateaus, and produces the ore which is, or rather was, worked to a considerable extent by the tribes.

The superficial character of the country is very varied. In former days large stretches of cultivation alternated with bush, forest, park-like meadow land, swamps, bamboo, jungle, &c., but the slave trade ruined much of the agricultural prosperity. Occasionally low hills to the north-east of Bongo Land vary the scenery.

To the north-west of Bongo Land rocky country is met with, swampy depressions and forests of *Terminalia*, also many open plains and plateaus.

Change in
character of
country to
the west.

In passing westward from the north-west of Bongo Land, through the Golo country towards the Seriba Sebehr, a notable change takes place in the character of the country.

Immediately after passing the Pango river the soft absorbent soil of the lower steppes, where water is only found in the streams during the karif, is quitted, and a country entered upon rich in springs, and very similar to the Niam-Niam hills. Abundant in water.

In the Dyur and Bongo lands, which are on the edge of the red swamp ore, there are no springs, but only what water is left by the rains in the various khors and depressions.

The country gradually rises up to the station Sebehr, which is 2,282 feet above the sea, and 737 feet higher than the Seriba Ghattas. Station Sebehr.

Away to the west of Seriba Sebehr lies the uninhabited wilderness of the Dar Fertit country, one of the oldest domains of the slave trade, and in 1870 described by Dr. Schweinfurth as a "sold-out land."

From Seriba Sebehr southwards towards Dem Gudyu the altitude increases; the latter station being 2,275 feet above the level of the sea. The country is broken and intersected by numerous streams. Blocks of hornblende and schist are met with, as also masses of red granite, flats of gneiss, and swamp ore.

In passing south-west towards Bektr the hills continue; alternate flats of gneiss and eminences of swamp are passed; also half swampy depressions and woods, while meadow land and the characteristics of the steppe country are absent; there are no longer springs to be seen, but the dried beds of various watercourses.

Ridges of hills appear in all directions of a character universal in Central Africa, consisting of ranges with isolated peaks, or plateaus of grey gneiss rising up from the beds of iron ore. They are probably the remnants of earlier chains of mountains.

The elevated land now runs to the south-east, while towards Bongo Land there are a series of steppes, extensive marshes, ranges of low flat-topped hills, stretches of forest, and khors, dry, except during the rains.

To the south-east of the Mudirieh there are in the Bongo and Mittu countries hills of considerable height formed by an off-shoot from the more southern highlands which serves as a watershed between the Tondi and Dyau rivers.

Tribes.

The following are the principal tribes included in the Bahr el-Ghazal district:—

The Denka, Dyûr, Bongo, Dembo, Golo, Kredy, Sehre, Bellanda, Babukur.

BONGO LAND

Bongo Land. As Bongo Land is the most important and most representative district of the Mudirieh, it may be specially described.

This country lies between 6° and 8° N. latitude on the south-western boundary of the depressions of the Bahr el-Ghazal basin, and on the lowest terraces of ferruginous crust bordering the alluvial land.

Its area is about the same as that of Belgium, but in comparison to the latter it is but a deserted wilderness. In 1770 it averaged only 11 or 12 people to the square mile.

It extends from the River Roah to the Pango, and embraces the middle course of nearly all the affluents of the Ghazal.

It is 175 miles long by 50 broad. On the north it is separated by the Dyur country from the Denka; but joins the latter along the north-east frontier.

The south-east boundary is the Mittu territory on the Roah; on the west the Golo and the Sehre countries, and on the south the Niam-Niam. Between the latter and the Bongo the small settlements of the Bellanda and Babukur are wedged.

When the Khartûmers first arrived, they found the whole country divided into a number of small independent districts, each with its own chief, and not combined in a commonwealth like the Denka.

Inhabitants. The people were thus an easy prey to the traders, who turned them into slaves and vassals, establishing a sort of feudal system, and forcing them to live round the Seribas. The Bongo were docile and yielding, and, being agricultural, supported these Seribas to a great degree.

The Dyur, Golo, Mittu, and other smaller tribes shared the same fate, and in 10 years there were more than 80 Seribas between the Rohl and the River Biri. Some of the population took refuge with the Denka and the Niam-Niam, but the greater portion were reduced to slavery.

The Nubians treated the country in a wasteful and disgraceful manner, destroying the population and seizing their corn and cattle. But after some years, when they had exterminated about two-thirds of the people, they began to see that their services were necessary for the cultivation of corn and the transport of merchandise.

Population.

Population. In Central Africa every nation has different names for its neighbours.

Dyur, Niam-Niam, are Denka names for these two tribes; the Bongo they call Dohr.

The colour of the Bongos is a red-brown. It would seem that the soil they live on has a marked bearing on the colour of the races. Here the red iron rock prevails, while, in the low-lying dark alluvial flats, we find the Denka and Nuehr of a deep black tint.

The Bongos have short woolly hair, are of medium stature, and, as regards their occupation, are essentially an agricultural people, devoting, however, occasional periods to fishing and hunting.

The amount of labour bestowed on the culture of the Sorghum corn is very large, and it is through their indifference to cattle breeding that they owed their comparatively peaceful relations to the slave dealing communities.

Dwellings.

When the Khartümers first came to the country, the Bongo, unlike other tribes, inhabited extensive villages encompassed by palisades; now these are no longer to be seen, except in the neighbourhood of the Government stations.

They bestow great pains on the construction of their huts, which are conical in shape, and made of stems of trees, faggots, bamboo, clay from the ant-hills, and grass. In diameter they are about 20 feet, and in height the same.

Occupations.

Besides agriculture, much of their time is devoted to the manipulation of iron, which is found in great abundance in Bongo Land. They produce arms and tools of excellent quality.

Their smelting furnaces are made of clay, and the iron is afterwards worked on anvils of gneiss or granite by hammers of stone or iron, rude bellows being used for the purpose.

Their dexterity in wood carving is also very great, shown in the various utensils, spoons, &c., which they make.

They are also much given to music, and have instruments, both stringed and wind, on which they play.

Compared with the other tribes, the Bongo give great attention to basket work, with which they line their huts, make beehives, and other articles for household use.

The manufacture of pottery is carried on by the women, who make different kinds of vessels and pipes.

The preparation of skins by kneading and fulling with

ashes and dung, and rendering supple with grease, also forms an important branch of industry.

Clothing.

Clothing. Their covering is scanty, being usually confined to an apron or strip of stuff or skin; but various disfigurements of the person play an important part, and their partiality for ornaments is very strong.

Arms.

Arms. Their weapons consist mainly of lances, and bows and arrows, shields being rarely used. Their lances are of great size, and they poison their arrows with the milk of a species of *Euphorbia*.

Manners and Customs.

Manners and customs. A man's wives are limited in number to three; he buys them for so many plates of iron from their fathers. The people have no religion or any name for a deity except "*Loma*," which denotes luck or ill luck. But they have an extraordinary fear of witches, devils, and spirits.

They have rude methods of surgery; misshapen and cripples are unknown, and previous to the settlement of the Nubians there was no such thing as syphilis, which now makes considerable ravages.

Language.

Language. The dialect throughout the country exhibits very little diversity. It is very simple in its grammatical structure, and has a great variety of terms for concrete subjects.

Water.

Water. Bongo Land is traversed from south to north by five important tributaries of the Ghazal, with which are associated numerous smaller rivulets, not permanent streams, though the pools which remain in their beds during the dry season furnish a sufficient supply of moisture to maintain the vegetation of the country.

Water for drinking never fails, although from November to end of March a fall of rain is exceptional. In case of necessity water can always be obtained from the pools above mentioned.

The crops are far more frequently injured by a superabundance of water than by drought, and the continuance of wide inundations has been followed by famine.

Produce and Agriculture.

Towards the end of August the Sorghum harvest commences by the pulling of the light crop sown at the end of April. The ingathering of the heavier kind of corn does not take place till beginning of December, after the rains. Produce and agriculture.

In this district sorghum takes eight months to come to maturity, though only five or six in Sennâr and Taka. Both the early and late sorts attain a height of nearly 15 feet.

Schweinfurth says, "In all descriptions of sorghum as given by travellers, there seems to be a considerable confusion with respect to the distinctive names of this ordinary cereal. It is called promiscuously 'Kaffir corn,' 'negro cane,' 'bushel maize,' 'Moorish mille,' or sometimes 'Durra.' Durra is an Arabic definition which can be traced in literature as far as the 10th century. In Egypt this sorghum is called 'Durra belladi' (durra of the country) to distinguish it from maize, which is known as 'Durra Shahmi' or Syrian durra. In Syria itself, where the sorghum is little known, because rarely cultivated, it is simply called 'Durra.' Throughout the Sudan it has exclusively the appellation of 'Aish,' i.e., 'bread.' " Different descriptions of corn.

There are three other kinds of corn. Next to the sorghum comes the penicillaria, or Arabian Dokhn, which is cultivated here more freely than in northern Sûdan. It is sown later than the sorghum.

A second substitute is a meagre grain, called by the Arabians Telabûn and by the Abyssinians Toccusso. It is only grown on the poorest soils when the ground is too wet for any other crop. It yields a miserable grain. The Niam-Niam, who are its principal growers, and the Abyssinians make beer of it.

The third kind is the maize of the country. It is only grown in moderate quantities, and as a garden vegetable. The Madi tribe of the Mittu are the only people who grow it to any great extent.

It is not possible from the flour produced to make bread such as we are accustomed to. Arabian bread is a fermented dough, tough and leathery, or, if risen, it becomes a crumbling mass. Bread.

All corn in the tropics has some constituent which produces these effects.

The process of cultivation is very simple, and carried on by merely placing the seed in holes. There are few materials in the country for manuring the land, so that if the crops were enlarged to any extent with the view of amelioration. Cultivation.

rating the condition of the people, the soil would be exhausted in a year or two.

Wheat does not thrive.

Rice.

Rice has not been tried, but would probably be well adapted to the soil. In the whole district south of the Ghazal the wild rice of Senegal grows freely, and is of good quality.

Vegetables.

There are numerous vegetables cultivated by the Bongo, such as the mungo bean, which they call "bokwa;" the earth nut; sesame, to the cultivation of which the Bongo give attention next to that of sorghum. Various kinds of yams are also seen; gourds of two principal kinds, the white and the yellow. The onion is unknown below the southern limits of Kordofan and Darfur.

Compared with Africa in general, this district is deficient in the growth of spices.

Tobacco.

Tobacco culture receives a good deal of attention. There are two kinds, the Virginian and the common, and the natives are much addicted to smoking.

A great abundance of fruit is afforded by the common trees of the country.

Alkali a substitute for salt.

There is an entire deficiency of common salt throughout the district of the Ghazal: alkali is its substitute, obtained by soaking ashes of burnt wood.

Animals.

Animals.

The domestic animals of the Bongo are poultry, dogs, and goats; sheep and cattle are rare.

The wild animals are buffalo, antelopes, ichneumons, civets, genets, wild cats.

Elephants appear to have become scarce. Lions, leopards, baboons, hyenas, &c., exist in the forests.

Climate.

Climate.

In Bongo Land the Karif or rainy season opens as early as March by occasional showers; up to August the showers increase in number but are never continuous, and at the most only take place every third or fourth day. Up to June they are attended by tempests and thunderstorms, but after that their violence abates. After July there is a change of temperature which only occasionally reaches the extreme point again, and this only about 95° F.

The climate is exceedingly uniform, a fact to be attributed to the absence of mountain ranges. The trade winds exert their influence without hindrance over the whole country.

Money.

Money.

The "Loggoh kullutty" is the circulating medium. It

is a flat iron coin 10 to 12 inches in diameter, with a handle on one edge, and serves, as well as lance heads and spades, for cash and exchanges.

THE DENKA IN THE BAHR GHAZAL PROVINCE.

The Denka country in the Bahr Ghazal includes nearly the whole of the low ground extending from the Dyur and Bongo countries as far as the Ghazal and Bahr el-Arab. It is a vast plain of dark alluvial clay, unbroken by a single hill or mass of rock, and the tracts of forest are limited in extent. A sketch has already been given of it in the description of the general topography of the Bahr el-Ghazal province. The Denka tribe.

The clayey swamps become in the dry season as hard as stone, the brooks and streams all dry up, and their beds are scarcely to be seen, covered up as they are in the rapidly growing herbage.

Inhabitants.

The inhabitants are essentially a race of cattle breeders, and despise those tribes who occupy themselves with agriculture, which is here only carried on to a small extent. Inhabitants.

Although some branches of the Denka race are pre-eminent for the size and height of their people, the majority of this western branch rarely exceed the middle height. They are of lank and sinewy form, and are among the darkest coloured of races. The women alone wear clothing, which consists of aprons of skin, and carry numerous ornaments, especially iron rings.

Dwellings.

The Denka dwellings consist of small groups of huts clustered in farmsteads over the cultivated plains. There are no villages in the proper sense of the word. The cattle of separate districts are united in a large park called "Murah" by the Khartûmers. Dwellings.

The huts are spacious and durable, and frequently 40 feet in diameter. They are on a foundation of clay and straw, and built of branches of acacia and other hard woods, the roof being of cut straw.

Manners, Customs, and Character.

They are a cleanly people, and far in advance of the Nubians in their preparation of food. The women, on account of their proficiency in housekeeping, play a large part in the slave trade, but give more trouble to their Manners, customs, and character.

masters than slaves of any other race. The male slaves used to be converted into soldiers, and were conspicuous for their stature and bravery.

They have a species of religion based on an institution called Cogyûr, a society of necromancers and jugglers.

They have the character of being pitiless and unrelenting in war, but their domestic ties are very strong. They are a pastoral people, but always prepared for war.

Arms.

Arms. Bows and arrows are unknown, but lances, clubs, and sticks are the favourite weapons, and they carry a shield of buffalo hide.

Domestic Animals.

Domestic animals. The domestic animals are oxen, sheep, goats, and dogs; poultry are never seen.

Cattle. The cattle are in enormous numbers, and belong to the Zebu race. They are smaller than those of the Baggara and Hassanieh. They have a hump, and are generally white in colour.

Sheep. The sheep are of a breed peculiar to the Denka, Nuehr, and Shilluks, and are remarkable for the shaggy covering to their shoulders. The continual moisture of the pasture produces internal worms, from which they suffer to a great extent.

Goats. The goat is of the Ethiopian form, but somewhat larger.

Every idea of the Denka is how to acquire and maintain cattle, to which they pay a kind of reverence. A cow is never slaughtered.

The only domestic animal killed for food is the goat, which scarcely represents the thirtieth part of the value of a cow.

The breed of cattle is degenerating for want of crossing. They are incapable of carrying burdens or of travelling.

The yield of milk is miserable.

Neither camels nor asses, nor mules, nor horses, are available in Central Africa, and the only animal by which these countries can be opened up, *i.e.* the elephant, is being quickly exterminated by the demand for ivory.

Agriculture.

Agriculture. Agriculture is carried on to a great extent.

The corn cultivated is the largest form of the species; takes nine months to ripen, and the stems become hard and woody.

There are also cultivated three kinds of beans, earth nuts (*arachis*), earth peas (*Voandzeia Subterranea*), sesame, yams, and Virginian tobacco.

Trees.

The character of the vegetation approaches to that of Trees. Kordofan. The commonest trees are the Seyel acacia, hegelig, tamarind, Christ's thorn, cappara, &c.

Water.

In the dry season water is obtained from wells, the Water. residue of the great pools formed in the rainy season. These are teeming with filth and animal life, and cause the intestine worms among the sheep and cattle.

Climate.

Among the swamps the miasma is a sure source of Climate. fever.

There are numerous snakes in the Denka country, Snakes. though never met with in Bongo Land.

THE RIVER "BAHR EL-GHAZAL."

The passage leading to the Ghazal from the White Nile is so choked up with masses of floating papyrus and weed that the stream is scarcely perceptible. The river is surrounded by a multiplicity of backwaters, and waters remaining in old river beds; but an enormous volume of water is carried through this channel to the Nile.

There is always great difficulty in navigating the mass of floating weed, and it was while doing so, that Gessi, shut in for weeks by the grassy barrier (or sudd), suffered such hardships.

The river becomes wider above the mouth, but the breadth is frequently only sufficient for a single vessel, while the depth is 30 feet or more. During the rains the surrounding country becomes like a vast lake.

Passing through the Nuehr land, the river wends its way through a finely wooded country to the mouth of the Bahr el-Arab; here it has a width of 1,000 feet, but narrows immediately on passing this affluent.

The depth now falls to about 15 feet, showing that the Bahr el-Arab is the main contribution to the lower portion of the river.

About 300 miles above its mouth the Bahr el-Arab is found as a stream all the year round, which must be crossed in boats.

The current in the Bahr Ghazal becomes hardly perceptible as it passes through the Denka country, and the water being spread out gives the appearance of lakes.

The river towards Meshera varies in depth from 8 to 15 feet, and is covered with floating grass islands. The channel gradually widens on approaching the cul-de-sac, to which the name of the Kyt has been given by the Denka.

Meshera.

This leads to Meshera, the furthest navigable point, known also as Rek.

The sailing boats take about 30 days from Khartûm to Meshera.

The Dyk or Kyt seems to be a backwater, where there is no perceptible current, or it may be the ancient bed of the Dyûr.

The ramifications of the Bahr Ghazal above the mouth of the Bahr el-Arab are very complicated, and but imperfectly known.

The shores of the Kyt are firm; its waters rise and fall, but have no other motion. It widens at its extremity into a basin of papyrus frequently choked by weed. In this basin are numerous islands which serve as refuges for boats, where they are secure from hostile attack.

The regular landing place is on the southern shore of the basin.

The first boat which entered the Ghazal was that of a Khartûm merchant named Habeshy in 1854. Two years later Consul Petherick followed, and was the first to open mercantile transactions with the tribes.

NUEHR COUNTRY.

The Nuehr are a warlike tribe somewhat formidable to the Denka; they occupy a territory in the angle formed by the Bahr Ghazal and Bahr el-Jebel (Upper White Nile) rivers, and are hemmed in between the Denka and the Shillûks.

In habits they resemble both these races, but differ in dialect.

Pasturage is their chief pursuit.

Their huts resemble those of the Denka, always clean and free from vermin. The men go naked, but the women are clothed about their loins.

In appearance the Denka, Shillûks, and Nuehr, all inhabitants of low marshy flats, strongly resemble each other.

DYÛR COUNTRY.

Dyûr
country.

The Dyûr inhabit the territory between the north-east frontier of Bongo Land and the Denka country.

Dyûr is a name given by the Denka, and means wild men, or men of the woods, and is used as a term of contempt.

The district is the inferior terrace of the ferruginous formation from which they extract a large amount of iron, and are all of them smiths by profession.

They call themselves Lwoh, and claim to be descended from the Shillûks, whose dialect they use.

The area of their territory is small, and their numbers cannot exceed 20,000.

On the north they are bounded by the large tribe of the Dembo, and by smaller clans.

They adhere to the Shillûk mode of decorating themselves, though for years they have been in partial dependence on the Denka.

Occupations.

Iron manufacture is their principal occupation, and they produce a metal excellent with regard to its homogeneousness and malleability. Occupations.

Iron smelting is carried on in March, just before seeding time, when they move away from their huts partly for this purpose, and also to drag the rivers for fish. The men also spend their time in hunting, while the labour in the fields is done by women, who likewise occupy themselves in making wicker-work and pottery.

Agriculture.

This is much the same as among the Bongos already described. Agriculture.

Huts.

Every tribe has always its peculiar description of hut, and that of the Dyûr is a simple structure of wicker-work, of wood, or bamboo, cemented with clay, and roofed with straw. Dwellings.

The Dyûr have large families, and were it not for the depredations of the Nubians, would be a dense population. The Nubians appropriated their corn, reduced them to slavery, and employed them as porters and builders.

Domestic Animals.

Goats, a few poultry, and dogs are the only domestic animals possessed by the Dyûr. Domestic animals.

MITTU COUNTRY.

The Mittu country lies to the south-east of Bongo Land, Mittu country.

between it and the River Rohl. In its southern part it is broken and hilly, but possesses many most fertile tracts.

The nation really consists of groups of tribes, the northern of which call themselves Mittu, while the others have the following names,—Madi, Madi Kaya, Abbakah, and Luba.

Their collective country lies between the Rohl and the Roah rivers, and for the most part is situated between 5° and 6° N. lat.

To the north it touches on the Denka tribes of the Rohl and Agar. On the south it is bounded by the eastern extremity of the Niam-Niam and the Makaraka. The Mittu call their own land "Moro."

Population.

Population. The Mittu tribes can all converse with one another, though there are slight differences in their dialects.

In manners, customs, and dress they most nearly resemble the Bongo.

The Khartûmers had stations in the country, but never entirely subjugated the more southern tribes.

In the scale of humanity the Mittu are inferior to the Bongo, and are not capable of sustaining much fatigue.

In adornments and mutilations of their bodies the Mittu have distinctive characteristics of their own. Their most remarkable habit is the distortion of their lips with plates of ivory, &c.

Agriculture.

Agriculture. The land is very productive, and they diligently cultivate in it a variety of cereals, roots, and fruit. It requires little labour bestowed on it, and is specially fertile between lats. 5° and 5° 30' N. in the districts on the Upper Roah and Wokko; and in the district of Mbomo, between the Lehssy and the Roah, where the growth of maize is extensive.

Domestic Animals.

Domestic animals. They breed the same domestic animals as the Bongo, viz., goats, dogs, and poultry; they possess no cattle, and show according to certain theories, that they are not far above cannibals by their preference for dog's flesh.

Dwellings.

Dwellings. Their huts are smaller and far inferior to those of the Bongo.

Habits.

They are great lovers of music, and have many different *Habits.* forms both of wind and stringed instruments.

Arms.

Their dexterous use of the bow and arrow gives them *Arms.* a certain superiority over their neighbours. The arrows are 3 feet long; they despise shields, but keep a liberal supply of spears.

BABUKUR TRIBE.

This race inhabits a small tract of about 350 square miles on the south-west portion of Bongo Land to the west of the Tondi river. They came originally from the south, probably impelled northwards by the Niam-Niam. They have been compressed into their present territory by the raids of the Niam from the south, and those of the Kartûmers from the north. Babukur tribe.

They are a warlike resolute race of very dark colour, short in stature, and of repulsive expression.

They are expert at all work, but have such a love of freedom that they were difficult to enslave. Another section of this tribe lies to the south-east on the southern frontier of Mittu Land.

BELLANDA TRIBE.

This race has a territory to the west of the Babukur on the south-west frontier of Bongo Land. They use the Shillûk dialect. Bellanda tribe.

They are partly under the King of Niam-Niam, and partly under the Egyptian Government.

SEHRE TRIBE.

This tribe resembles the Niam-Niam, to whom they were originally subject. Their district lies to the north-west of Bellanda, and the scenery is here very diversified; dense woods being relieved by culture lands and the homesteads of the natives. Sehre tribe.

In appearance they resemble the Niam-Niam, but are not tattooed, and are of a dark chocolate colour.

They are a well-built robust race, and in this respect more resemble the Golo and Bongo.

Their huts are carefully built and kept up, and are far superior to those of the Golo or Kredy.

They appear to have neither goats nor dogs, and their live stock consists in a few cocks and hens.

Their lances resemble those of the Bongo, but their bows and arrows are smaller.

The women's attire consists in bunches of grass and leaves fastened by a girdle. They disfigure their lips like the Mittu.

Hunting is their principal occupation, which is productive, as the district abounds in such wild animals as buffalo, antelopes, lions, &c.

Water.

Water. The country is all but destitute of water, for the Pango separates a country teeming with springs from one that is barren of them. With the exception of a few streams, pools and marshes, scattered at far intervals, afford the only supply.

Agriculture.

Agriculture. Sweet potato, Cassava, horse-beans, &c., are among the products.

Character.

Character. The people are most light-hearted, and bear hardships with great cheerfulness.

GOLO TRIBE.

Golo tribe. The Golo resemble the Bongo in manners and personal appearance, though their dialects have very little in common.

Their huts are more like those of the Niam-Niam. The roofs projecting far beyond the clay walls, and supported on posts.

Agriculture.

Agriculture. Dokhn corn and sweet potatoes are extensively cultivated.

Water.

Water. Brooks and springs are plentiful among the gneiss and granite rocks.

THE KREEDY TRIBES.

The Kreedy tribe. The Kreedy tribes inhabit the Fertit country. "Fertit" being a name applied by the Baggara Arabs and the inhabitants of Darfur to distinguish these tribes from the Niam-Niam. In a wider sense the term is applied to all nations south of Darfur.

The country, as already mentioned, has been utterly desolated by the slave trade, which established some of its earliest stations here.

"Dar Fertit," the territory of the Kreedy, lies to the west of the Bongo and Golo lands. It is bounded on the north by the Baggara Arabs, on the west by the Mango and Benda tribes, who have their districts on the Upper Bahr el-Arab. On the south their territory approaches the Niam-Niam country.

Inhabitants.

The population is a conglomeration of the representatives of different races, the remnants of a systematic destruction. Inhabitants.

The following tribes predominate: viz., the Nduggo, situated about Dem Sebehr; the Biæ around Dem Gudyu; and the Yongbongo between the two former.

In form they are below the average height, thick and unwieldy in figure, and of a coppery colour.

The caravan roads from Dem Nduggo to Darfur run in a N.N.W. direction; they pass through the Mango country, and, crossing the Bahr el-Arab, traverse the region of Hofat el-Nahahs, where the notorious copper mines are said to exist. Road to copper mines at Hofrat el-Nahahs.

These mines are about six days' journey north of Mango Land.

The copper is brought into market in the shape of rings or cakes, but no systematic mining is carried on.

Water.

In the Kreedy country are numerous running streams, Khor beds, and stretches of fine forest. Water.

Occupations.

Fishing, agriculture, basket making, &c., are among the chief occupations of the people. Occupations.

Dwellings.

The huts are entirely wanting in superstructure, and resemble those of the Kaffirs. Dwellings.

Descriptions of the Monbuttu and Niam-Niam countries, which are on the frontiers of the Mudirieh of the Bahr Ghazal Province, are to be found in "The Heart of Africa," by Dr. Schweinfurth. ✓

THE SHILLŪK COUNTRY.*

THE Shillŭk tribe of negroes inhabits the entire bank of the White Nile for 200 miles northwards of the mouth of the Ghazal river. Their strip of territory, however, is not more than 10 miles wide. Formerly, they extended much further north than at present, and had settlements on all the islands of the Nile, though now they only exceptionally penetrate to lat. 12° 30' N.

The Baggara Arabs hem them in on the west, and are constantly extending their encroachments along the river bank, and have, moreover, with their flocks ventured far to the east of the stream into the land of the Denka. During the dry season the Baggara hold all the left bank, but return to the steppes of the interior during the rains. Wherever they settle they completely drive out the Shillŭks.

The Shillŭks† had an ancient dynasty of kings, and a form of government which was destroyed by Mohammed Ali. They are said to have numbered two millions before the Egyptians occupied their country.

Population.

In the year 1871 their subjection to the Egyptian Government was completed. At this time a census was taken of the villages, by which their number was estimated at 3,000. Taking the number of huts in a village as varying from 45 to 200, and the inhabitants of each hut at four or five, the number of inhabitants in the country must have exceeded 1,000,000. No known part of Africa has a density of population so great. Everything here is favourable to support a teeming population—agriculture, fishing, pasturage, and the chase.

The soil is very fertile; for in addition to the rains, it is watered by the rising of the river and artificial irrigation.

Emigration.

A certain amount of emigration from the Shillŭks goes on in a south-westerly direction, where considerable numbers of them, the Dembo and the Dyŭr, have settled on the borderland between the Bongo and the Denka. There are also settlements of Shillŭks about the mouth of the Sobât river.

Dwellings.

Dwellings.

The entire west bank of the Nile, as far as the district of the Shillŭks reaches, has the appearance of a continuous village, the sections of which are separated by intervals varying from 300 to 1,000 paces. These clusters of huts

* "The Heart of Africa," Schweinfurth.

† "Colonel Gordon in Central Africa."

are built with great regularity, and closely crowded together. Every village has its overseer, whilst there is a superintendent over 50, 70, or 100 villages, who has the control over a district. There are about 100 districts, each distinguished by its particular name.

In the centre of each village is a circular space, where the inhabitants congregate.

Appearance, Manners, and Customs.

They are short in stature, and unpleasing in appearance. The men wear no clothes, but cover their bodies with red and grey ashes. The women wear a leather apron. Appearance, manners, and customs.

The hair of the men is worn clotted together in all sorts of fantastic shapes with clay, gum, or dung.

They carry clubs similar to the knobkerries of South Africa, but their only other arms are long flat-headed lances.

Domestic Animals

The Shillûks breed oxen, sheep, and goats; they also keep poultry and dogs. Domestic animals.

The dogs are shaped like greyhounds, but are smaller; they are exceedingly active, and are used in chasing antelope.

Canoes.

The Shillûk canoe, in which they navigate the Nile, is formed of long pieces of the Ambatch wood, which is lighter than cork. These canoes or rafts generally carry two persons, and are especially adapted for the marshy navigation of the river, as they can be carried on the head without difficulty, when it is necessary to cross an island or morass.

Products.

Cotton grows wild, but the people are ignorant of the art of manufacturing from it. Products.

Large quantities of dhura and some maize are grown.

Tobacco is also found.

The country consisting simply of rich alluvial soil, there is no iron, and this article is accordingly much prized by the natives.

The rains begin in May and are regular throughout four months; so that cotton might be cultivated without the expense of artificial irrigation.

The Acacia forests produce gum in unlimited quantities, but there is no trade in it from here.

The northern end of this country is rich in forests of the *Acacia Arabica* (sunt)—a wood that is invaluable as fuel for steamers, and is the only really durable wood for ship-building in the Sûdan.

Seat of
government.

The seat of the Egyptian Government is at Fashoda. The inhabitants are discontented, and, if occasion offered, are ready to rise against the Government. In 1876 such a rising took place, and but for the accidental presence of Gessi Pasha, Fashoda would have been taken.

Fashoda.

Fashoda is situated in lat. $9^{\circ} 52'$ N. at 618 miles by river from Khartûm. It completely commands the river, is fortified by a wall and flanking towers, and garrisoned by a regiment of Egyptian soldiers.

REPORT ON TOWNS.

SHORT descriptions of many of the towns will be found among the details of those routes passing through them, pp. 151-190.

The following are the principal places in the provinces included in the foregoing reports :—

KHARTÛM.

Khartûm.

Khartûm is situated near the confluence of the Blue and White Niles, at a height of 1,450 feet above the sea. It lies chiefly along the left bank of the Blue river, from which, however, it is partially separated by gardens, and is at the same time so near the White Nile, that its inundations frequently reach the earthen wall by which the place is surrounded. The town, as approached from the White river, presents a mass of dirty-grey houses, overtopped by a single minaret, and in front a sterile sandy plain without trees or bushes. It is entered by a long narrow street, stretching from west to east, and terminating in the market. This street is dirty in the extreme, and bordered by mud houses, whose doors are their only openings to the street. In other parts of the town there is no semblance of regularity; the houses are of all sizes and shapes, and the streets mere labyrinths. Here and there are open spaces large enough for gardens, and even for corn-fields.

There are also numerous hollow flats, in which during the rainy season water collects and stagnates, rendering

the place very unhealthy. The street above mentioned is the best in Khartûm; it contains the Governor's residence and offices, and many spacious mansions belonging to Turks, Copts, and Arabs. All the other houses are of a miserable description, consisting of sun-dried clay, cemented with cow-dung and slime. In the market-place is the mosque built of brick, and here also are the bazaar, coffee-houses, brandy shops, &c. In addition to the buildings already mentioned there is a Coptic and a Roman Catholic chapel, a Roman Catholic school, an infirmary, a gaol, and barracks.

The gardens along the Blue Nile produce vegetables and fruits in great variety. The date palm here reaches its most southern limit, and ceases to fully ripen its fruit, though as a tree it still grows vigorously.

There is much land for cultivation along the borders of the Blue Nile, but the tax on the water-wheels and the contributions levied on the produce cause the Arabs to limit their agriculture to their bare necessities.

The population is of a very mixed character.

EL-OBEIYAD.

El-Obeiyad, the capital of Kordofan, is situated in lat. $13^{\circ} 15' N.$ and long. $30^{\circ} 7' E.$ It is a straggling collection of mud huts, comprising six different villages, each forming a separate quarter, inhabited by a distinct class of men, and standing in a vast plain. The dwellings are mere huts of straw and mud, with the exception of a few built of clay, and the Government House, one of the mosques, three barracks, and a hospital built of sun-dried bricks.

The market-place presents a scene of much animation during the day; for this is a great trading centre for gum, ostrich feathers, &c.

There is a Roman Catholic mission established here, which is a branch of that at Khartûm; and it is reported to be in a flourishing condition.

The priests state that they do not find the climate very trying.

The wells are very deep, some as much as 100 feet, and at times water is very scarce; for this reason it is probable that the seat of Government will be removed to Bara.

100,000 cwts. of gum is annually sent from Obeiyad.

BARA.

Bara is a pretty town. The wells are 20 or 30 feet deep, and there are splendid gardens; all kinds of fruit and vegetables can be bought.

SUÁKIN.

Suákin is the principal port on the Red Sea for all merchandize from the Nile provinces. It was formerly held directly subject to the Turkish power, but in 1865 was, for a consideration, handed over to the Viceroy of Egypt.

Though formed by nature to serve as a harbour for the Egyptian Súdán and even for Abyssinia, as long as its administration was under Arabia and Constantinople, it could never rise, and its prosperity now is only comparative. The Egyptian Government still obstructs traffic by the heavy duties which it levies on the natural intercourse with Suez. This Government seem to prefer the harbour of Massuah, but the latter is twice as far from Khartúm as Suákin is from Berber, and the trade from the Nile *viâ* Berber is still uninterrupted.

Suákin is situated in lat. 19° 17' N. and long. 37° 20' E. It consists of the town proper built on an island, and of a suburb on the mainland, which has outgrown the town both in population and importance. It contains a number of mosques and public buildings, of which the principal are the Governor's house, the Custom-house, and the bazaar.

The inner harbour is formed by a channel 500 yards wide, which penetrates between the mainland and two islands, on one of which the town is built. Though completely sheltered from all winds, it is too shallow to admit the largest vessels.

These two islands are situated in a lagoon or bay, which is connected with the sea by a neck of water about three-quarters of a mile long, and just wide enough to admit of two ships passing. In this bay, outside the islands, there is, according to a report by Captain Gascoigne, Royal Horse Guards, in 1882, water deep enough for ocean-going steamers.

This officer also reports to the following effect :—The entrance to the harbour is difficult, and as there are no lights, can only be approached in daylight, because there are dangerous coral reefs lying off the coast for 20 miles, both north and south. These reefs are not buoyed, and lie only a few feet below the surface.

The harbour, though small, is very secure.

The town may be said to be practically undefended, for though two small field-guns command the causeway, built by Colonel Gordon, connecting the town with the mainland, yet the channel all along one side of the town is so narrow, that an attacking force could easily wade across it.

The town could also be bombarded from the sea.

The Governor is under the orders of the Governor of

the Red Sea ports, who resides at his official residence a Massuah.

Steam Service.

When there is no quarantine at the Arabian ports to interfere with the Red Sea steamers, there is a weekly service to and from Suez by one or other of the three following lines, whose vessels touch here :—

(1.) The Egyptian Line or Khedive steamers.

(2.) The British India Steam Navigation Company's Persian Gulf ships.

(3.) And two Rabattino Company's Red Sea steamers.

A fourth line has just started, i.e., the Levant and Eastern Steamship Company, whose vessels call *en route* to Bombay. When Captain Gascoigne wrote in 1882 they had only one vessel, the "Adowa," running.

Inhabitants.

A few Greek and Italian merchants, and one or two Englishmen, reside in Suakin. Of the latter, in 1882, one was Captain Moncrieff, R.N., Consul for the African ports of the Red Sea.

Troops.

There is generally a garrison of 300 Nubian troops stationed in an undefended barrack on the mainland, about a mile from the town.

Supplies.

Cattle and sheep are very plentiful, and cheap; they can be obtained from the tribes in the neighbourhood, and hundreds of them are annually sent by sea to Suez.

Water Supply.

The water supply is limited. It is collected during the wet season in a large reservoir about a mile from the town.

There are also two or three wells at the same place.

Towards the end of the dry season the water becomes thick and dark coloured, but it is said not to be unwholesome (1).

Telegraphs.

There is a telegraph line to Kassala, and so *via* Khar- tum to Cairo.

Transport.

Camels can be bought and hired in great numbers at all

seasons, but especially in summer, before they go inland to bring down the gum arabic from the interior.

There are no mules, horses, or donkeys.

Routes from Suákin.

Routes from
Suákin.

Three main caravan routes into the interior start from Suákin—

(1.) To *Berber* across the desert on camels (two or three different routes).

(2.) To *Kassala* across the desert and along the telegraph line.

(3.) To *Toka* by the coast, thence up the Baraka river to Zaga, near which place the Keren and Kassala road joins in.

EL-FASHER.*

El-Fasher or Tendelty stands on the western bank of the Wadi Tendelty, in an angle formed by the junction of the latter with the Wadi of El Kho.

The Tendelty has no current of its own, but is filled during the rains by the overflow from the Kho, and a dam, constructed near the junction, retains the water for some time. The wells supplying the town are all sunk in its beds.

The town consists almost entirely of "Tukuls" and box-shaped straw sheds. On the east of the Tendelty stands the palace of the late Sultan, a group of mud huts and a few tukuls surrounded by a mud wall about 20 feet high.

On the town side opposite the palace, the Egyptians have constructed a square fort with bank and trench. One gun is posted at each angle to command the town, and four sentries march up and down the top of the bank.

The population of the town is about 2,650. Of these

1,700 are Natives,
300 Es Sayadiyeh Arabs,
250 Es Sábah Arabs,
400 El Melhah Arabs.

KASSALA.†

In 1861, Baker describes Kassala as a walled town surrounded by a ditch and flanking towers, and containing about 8,000 inhabitants exclusive of troops.

It is the capital of the province of Taka, and the Egyptian depôt for troops and stores on the Abyssinian frontier.

* "Incidents of a Journey through Nubia to Darfur," Ensor, page 153.

† "The Nile Tributaries of Abyssinia," Baker, page 69.

The houses and walls are of unburnt brick, smeared with clay and cow-dung.

The direct route to Kassala is by Suez to Suâkin, and thence by camels in 16 days.

The fortifications, though useless against guns, are considered by the Arabs impregnable. The walls are of solid mud and sun-dried bricks, loopholed for musketry, and surrounded by a deep fosse.

Kassala was built about 1840 after Taka had been annexed to Egypt.

The neighbourhood is very fertile, and the River Gash supplies excellent water, which should, however, be filtered in the rainy season.

To the south and south-east the country is wild and mountainous, and would afford good sanatoria during the rainy season.

A large quantity of gum arabic is collected and sold at Kassala. And, in addition, ivory, hides, senna, beeswax, &c., are collected by the travelling traders and sold to the larger merchants in the town, which, as a trading centre, ranks next to Khartûm.

Kassala, situated as it is, is an important military point in case of war with Abyssinia.

The Basé tribe, through whose country the Gash river flows, would be invaluable as allies, from their knowledge of the roads, and from the fact that their country commands the very heart of Abyssinia.

Captain Gascoigne, R.H.G., reports the town as being well situated for a military centre at the end of the great plain stretching north and east, and at the foot of the Abyssinian mountains. Supplies are very abundant.

The Kassala Mountain is an enormous perpendicular mass of granite rising to the height of several thousand feet straight out of the plain, and can be seen for many miles in all directions. In 1881, Captain Gascoigne gives the number of inhabitants as from 25,000 to 30,000. There were a few Greek and Italian merchants, but no English.

Camel breeding is extensively carried on, and there are also large numbers of cows, sheep, and goats in the neighbourhood.

Korasi, on the Athara, is considered one of the cheapest and best places to buy camels.

The chief caravan routes from Kassala are—

- (1.) To Kedaref (Suk-Abu-Sin), Kalabat, Abyssinia.
- (2.) To Gos-Redjeb, down the Athara to Berber.
- (3.) To Korasi across the desert to Khartûm, a bad road for water.
- (4.) Amedeh and Kereh, a road much used, good, and level, but in places the sand is deep.

(5.) Straight across the plain for 100 miles without water to the Hamran Arabs country on the Setit river.

Three telegraph lines leave Kassala : (1) to Suakin ; (2) to Shendy, Khartûm, Cairo ; (3) to Keren and Massuah.

The number of troops usually quartered in Kassala is 800, all Nubians, except some bad characters exiled from Lower Egypt.

Due south of Kassala the Egyptians have lately established a military post at Jirdeh on the Setit, and are said to keep about 400 men there.

MASSUAH.

Massuah is situated in lat. 15° 36' N., and long. 39° 21' E., on a small barren island in the Red Sea, about one mile long by 400 yards broad, and at the north end of the Bay of Arkeko. It is connected with the shore by a causeway, a mile in length, built across the shallow water to the mainland, where there are barracks and huts for about 800 to 1,000 soldiers.

The town itself is built partly of stone and coral, but the larger number of the habitations are of poles and grass.

Water. Water has to be carried 2 miles to the town.

There is little cultivation in the surrounding country, as industry is paralysed by the fear of raids by the Abyssinians.

Trade. No Sûdan produce comes here, only the trade of Abyssinian hides, butter for Djeddah and the Arabian ports, ivory from Shoa, and beeswax. These are brought into the town by Abyssinian bearers.

Inhabitants. The chief inhabitants are a few Greeks and Italians ; an Italian and a French Consul, the latter also acting as agent for Great Britain ; one Englishman, agent for Messrs. Wyld, Beyts, & Co. ; and a small colony of Banians, through whose hands almost all the trade passes.

Duties. There are vexatious export and import duties imposed by Egypt. No guns or powder are allowed to be imported, and owing to the heavy duties, bad quality of the roads, and jealousy between Egypt and Abyssinia, there is very little commerce.

Harbour. The harbour is good, and vessels can lie close off the town ; but all goods have to be landed in large native open boats, and then hauled ashore by manual labour, as there are no cranes. The depth of water alongside the Custom House quay is 3 to 4 feet, and the quay itself very small.

Climate. The climate is intensely hot, but fairly healthy.

Governor. The Governor of all the Red Sea ports has a palace here, built by Gordon Pasha, and resides in it for the greater part of the year.

The Bazaars are poor and small, and very few supplies of any kind are to be had, though, if friendly relations were established, much corn, cattle, &c., might be brought from Abyssinia. Bazaars.

Horses and mules are scarce and dear, and there are next to no camels to be had in the neighbourhood, as they are of little use on hilly roads. Transport.

Two routes start inland from Massuah, one the main road into Abyssinia, and the other to Keren. The former is said to be bad, rough, and hilly, and a mere mountain path for hill ponies and mules. Routes.

The Keren road makes a long detour to the north, in order to reach a pass over the mountains into the Anselly valley. This path is very steep and bad, just passable for laden camels, but no more.

KEREN.*

Keren, or Sanhit, as the Egyptians call it, is the capital and only towns in the province of Bogos. It is situated on the edge of the highlands of Abyssinia 4,469 feet above the sea-level.

It is built on one side of a small tableland about 4 miles long by 2 broad, surrounded by hills, and, from its high position, is extremely healthy at all times of the year. Climate.

The fort is on the slope of the hill gradually ascending from the town, but precipitous on the other side. From the summit there is an extensive view over all the country, except towards the south, where the Abyssinian mountains come down to within 2 miles of the town, and form the southern boundary of this small elevated plateau. Fort.

The town is built just outside the gates of the fort, and consists of two short broad streets of very poor Greek stores, and some clusters of Abyssinian houses and Arab huts. Town.

A mile distant across the plateau is the French monastery, with its schools for educating Abyssinian boys for the priesthood, and its Amharic printing press for publishing Bibles in the native tongue. French monastery.

There are about 10 monks, and a few sisters.

There is a good vegetable garden, a dairy, and carpenters' and blacksmiths' shops.

The monastery, however, is carried on under difficulties; it is an object of suspicion to the Egyptian authorities, who regard the monks as spies; while the Abyssinians also regard them with distrust, and will not allow them

* Report by Captain Gascoigne, Royal Horse Guards, 1882.

into their country. The pupils are mostly destitute children.

The fort.

Inside the fort, or more correctly the entrenched camp, are rows of round, well-built stone houses for the men; the Governor's house and offices, the commandant's house, the telegraph office, post office, and Government store houses.

The defences consist of a high well-built wall, of sun-dried bricks and hard mud, some 20 feet high, 10 or 12 feet thick, and surrounded by a deep and broad dry fosse.

The wall surrounds all the buildings above mentioned, and the whole fort is very much the shape of a horse shoe; the toe of the shoe being at the foot of the slope next the town, and the sides of the shoe running up hill. Some three or four acres are enclosed inside the wall, which, though strong against native attacks, would offer no resistance to field artillery. From the situation of the work on the slope of a hill it is very much exposed, and a field piece half a mile distant could destroy every house inside it.

Telegraph.

One telegraph line runs to Massuah, and another to Cairo *via* Kassala and Khartûm.

Garrison.

The strength of the garrison varies a good deal, but is supposed to consist of one regiment, which, in the Egyptian Army, represents 1,000 men when at full strength.

Trade.

There is next to no trade, as the unsettled state of the frontier and hostility of the Abyssinians, prevents merchants risking their lives and goods.

In addition to this, the Egyptian Government policy is to isolate Abyssinia, so as to prevent the import of arms and ammunition for King John's army, which is anxious for the recovery of Keren and the lost province of Bogos.

Tribes.

The Egyptian subjects, the Beni-Amer, and other neighbouring tribes are all owners of large herds, on which they wholly subsist. They produce nothing, and seem to require nothing except a few yards of cotton, so that the trade of the town consists entirely in supplying the wants of the garrison.

Fuel.

Fuel is scarce, having to be brought from the Anseba valley 4 miles distant.

Water.

Water for the town has also to be brought from some distance; but there is a well inside the fort that supplies the garrison.

Food.

Dhura is dear, as the surrounding country is but little cultivated, and the perpetual dread of raids from Abyssinia prevents the people building good houses or encouraging their country from settling.

Transport.

There are no camels, and scarcely any horses or mules to be bought.

The commonest necessities of life are dear and bad.

Raschid Pasha, Governor of Keren in 1882, an active Circassian officer, built a brick-kiln for making bricks to strengthen the walls and defences of Keren.

DEBBEH.*

Debbah, though in an important position, is only a small insignificant village situated on the left bank of the Nile, near Old Dongola, and surrounded by cultivation.

On the borders of the cultivated land there are many houses, and the region is thickly populated.

A market is held twice a week, where butchers' meat, generally beef, is always for sale. In the neighbourhood a large number of good sized cattle are to be seen. There are also many fine sheep and goats.

The crops consist of wheat, barley, dhura, cotton, &c.

Debbah is a commercial centre for ivory and gum from the interior, and for merchandise of European production, which is distributed to Khartûm, Kordofan, and Darfur.

The geological formation is Nubian sandstone, which has been acted on by heat and metamorphosed on the surface.

Petrified wood is found in great quantities.

REPORT ON RIVERS.

THE NILE.

THE Nile, as shown in other parts of this report, is navigable from Cairo up to the first cataract at Assuan. Its course from here to the bend at Old Dongola is described at page 151.

Between these points it is only navigable for short distances between the cataracts. From Berber to Khartûm, traffic can be carried on by water during the rainy season; but, during the dry season, it is not possible for anything but boats of very light draught.

The question of opening up communication with Central Africa is becoming every year of greater importance. Several projects have been set on foot with this object, but the main difficulty is the question of transport from the great lakes to the sea.

* "Report on Northern and Central Kordofan, &c.," by Colonel Colston, page 18.

Difficulties
of traffic on
Nile.

Sudd.

Sandbanks.

Rapids.

Scarcity of
fuel for
steamers.

Notes by
Captain
Watson, R.E.

Nile from
Berber to
Khartûm.

Nile above
Khartûm.

The eight cataracts which are formed in the course of the Nile from Albert Nyanza to the Mediterranean, and the liability of the narrow channels in the great marshland between Bohr and the Sobât to be blocked by the Tawfs (Sudd), the floating islands of grass which have so often proved such terrible obstacles to navigation, and the ever-shifting sandbanks upon which even the lightest boats frequently get stranded during the dry season, present engineering difficulties to navigation which are practically insurmountable; not to mention the Murchison Falls where the Nile springs at one leap over a ledge of rock 120 feet high, or the long succession of rapids between these falls and Foweira, where, in some 30 miles, the river falls more than 800 feet. Another serious difficulty in using the Nile as a waterway for steamers is the question of fuel. For hundreds of miles south of Khartûm trees are scarcely to be met with in the Valley of the Nile, and fuel is becoming very scarce even with the small amount of traffic that exists.

Colonel Gordon writing on his passage from Lado to Khartûm in February, 1875, says: "The navigation between this and Khartûm is a terrible affair; firewood begins to get scarce, and every year will make it scarcer. There are innumerable shoals, &c., and you cannot make the Arab captains work well."

As regards the navigation from Berber to Khartûm, the following is an extract from notes made by Major Watson, R.E.,* to accompany his survey of the White Nile:—

"After a few days' delay at Berber, we proceeded by steamer up the Nile to Khartûm. The river was nearly at its greatest height, and navigation was consequently easy, even at the cataracts which lie between Shendy and Khartûm. At this point the Nile passes through a range of hills which contract its bed, and so increase the rapidity of the current. When the Nile is low, it is not possible to pass these rapids, except in boats of very light draught, as there are many dangerous sunken rocks. The distance from Berber to Khartûm occupied six days, but it can be done in from three to four without difficulty."

In speaking of the Nile at Lado above Khartûm, he says: "By the middle of November the Nile had fallen about 3 feet below the highest point of that season, and it continued to fall steadily until the end of January, 1875, when I left Rigaf to return to Cairo. For this reason the navigation was somewhat more intricate than when we ascended in November; but there was no real difficulty, and we reached Khartûm in 16 days after leaving Lado. In many places the fall of the river had quite changed the

* "Journal of the Royal Geographical Society," 1876, vol. xlv, page 413.

character of the country, and districts which had been completely under water were now dry and covered with vegetation."

"As the Nile was so low, it was impossible for a steamer to get over the cataracts between Khartûm and Shendy."

Notes to Accompany a Survey of the White Nile from Lado to Nyamyungo. By Colonel C. G. Gordon, R.E., C.B.* Notes by Colonel Gordon.

"The River Nile is navigable for boats at all seasons from Lado to Bedden, and during three parts of the year it is navigable for steamers of moderate draught to a point within 3 miles of Bedden, but in the dry season steamers cannot proceed higher than Gondokoro. Lado to Bedden.

"The road by land from Lado to Rigaf, and from Rigaf to Bedden, is through well cultivated undulating country.

"From Bedden the country is navigable for boats to Kerri, but the rapids at Bedden necessitate a transshipment at that station. The road between these two points by land is through an open country, sloping gently down to the river. Two considerable streams are crossed, one of which, the Lima, is generally knee-deep, but after storms is impassable. "It has a steady current. The second, the Kya, is a torrential stream, and always dangerous to cross. Bedden to Kerrie.

"After passing the Kya, the country becomes more rugged, and this continues on both sides of the Nile, until near Kerrie, where it opens out again, and continues open to near Laboreh. Kerrie to Laboreh.

"The river from Kerrie to Laboreh cannot be termed impassable. There are some awkward rapids in it, but they would soon become known, and the river might be utilised to a great extent. The land road is good, and through cultivated country.

"At Laboreh the country comes down more abruptly to the river on both sides. The river continues of much the same character as between Kerri and Laboreh up to the junction of the Asua with it, when a series of more serious rapids occur, which terminate in a steep rapid, with a fall of about 1 in 6, known as the Fola rapids. For about 2½ miles beyond this the river is free from any obstacle up to Dufli and even to Lake Albert. The land road passes along the river's edge, the chain of mountains on the west bank coming down close to the edge, and leaving a small plain at their base. This continues nearly up to the point of junction of the Asua, where the country Laboreh to Dufli.

* "Journal of the Royal Geographical Society," vol. xlv, page 421.

ends in a steepish cliff on the river bank. The road crosses the River Tyoo, a considerable stream, 9 miles from Laboreh. Eight miles further on it leaves the river bank, and, crossing several torrent beds, it follows the foot of the hills to near Dufli. This part of the country is a wilderness.

"The only real difficulty in the navigation of the Nile is the Fola rapid. The abruptness of the land on each side of the rapid prevents any hope of towing a boat or steamer through it.

"Just above these rapids the country opens out into a vast plain, bounded on the west by the Kookoo mountains.

Dufli to
Lake Albert.

"The Nile from Dufli to Lake Albert is very sluggish, and papyrus isles abound in it. The west bank is well cultivated, but the east bank is generally deserted. From Magunga to Murchison Falls the river is navigable, but between Murchison Falls and Karuma it is obstructed by several rapids. The country is rugged in the extreme, and almost uninhabited.

From
Magunga to
Foweira.

"From Karuma past Foweira and Mruli, up to Mount Marusi, the river is open and deep; near Mount Marusi it opens out, and many papyrus isles obstruct the navigation.

From
Foweira to
Isamba
Falls.

"One of these difficult passages occurs nearly opposite Mount Marusi, where the river is not more than 60 feet wide, although in general it is about 800 yards in width.

"After the passage there is a vast lake extending to an unknown distance to the east. Another narrow passage occurs some 30 miles further south, the river being contracted to a width of 3 or 4 yards for a length of about 12 miles. This is a very serious obstacle to the navigation.

"After passing this narrow gut, the river is clear up to Isamba Falls."

The Sudd.

The "Sudd." After passing south of the mouth of the Sobât, a region of immense flats and boundless marshes is entered upon, through which the river winds in a labyrinth-like course to Gondokoro.

The junction of the Bahr Zeraf is 30 miles from the Sobât.

The Bahr Zeraf, the lower course of the Bahr el-Jebel, and the Bahr el-Ghazal, are all liable to become choked with masses of vegetation or grass barriers formed by floating islands of weeds, &c. What should be the river's bed then assumes the appearance of a vast marsh, through which, if it is neglected, it becomes impossible to navigate.

As Colonel Gordon states, below Gondokoro, the Nile spreads out into lakes; on the edge of these an aquatic plant with roots 5 feet long flourishes.

The natives burn the tops when dry, the ashes form a mould, fresh grasses grow till it becomes like terra firma. The Nile rises and floats out these masses; they come down to a curve in the river, and then stop, and so the river becomes at length blocked. These barriers have been cut away many times; Sir S. Baker cut his way through 80 miles of sudd, but this, unless the river is kept open by constant navigation, is always liable to reform. In September, 1880, Gessi Pasha suffered great hardships on the Bahr Gazal during his voyage back to Khartûm. He found a grass barrier in front, and a strong wind drove other floating islands down upon him in rear, thus blocking him up for weeks.

In September, 1879, Mr. Felkin was unable to proceed from Lado to Khartûm by water on account of the sudd, which Mr. Lupton had been trying for nearly a year to open up. At that time 26 miles of grass had been removed. In 1881 Mr. Felkin reported the Nile as clear again.

He describes the "tawfs," or floating grass islands in "Uganda and the Egyptian Sûdan," vol. ii, p. 110.

The Nile when it flows into Lake No (Mohren el-Bohur, or Mouth of the Streams) appears to be a channel varying from 100 yards to a mile in breadth, but, from the masthead of a steamer, it would be seen that there is a sea of grass on either side of this water channel, and that the real banks of the river are 4, 8, or even 12 miles distant on either side. Under all this grass is water, which is slowly making its way down to fill up the vacancy caused by the absorption of the water by sand and sun. The grass which floats on the top of the water is so thick that it is possible to walk on it, and were it not for this covering, the evaporation over such a vast area would greatly diminish the supply of water to Lower Egypt.

A considerable part of the Nuehr tribe actually live on the floating mass of vegetation, fish and the stalks of a waterlily forming their only food. The surface of the water is covered by a dense tangled mass of papyrus, ambatch, and other water plants, which, in places, grow to a height of from 15 to 30 feet.

At the rise and fall of the Nile, quantities of the grass get torn away and floated down stream. If the season is unusually wet, the stream increases in bulk and rapidity, and thousands of large masses of the grass are sent floating down.

The channel of the river (not its true banks) is very tortuous, and at Lake No, where the Bahr el-Ghazal flows into the Nile, there is a sharp turn to the east. If the water contributed at the same time by the Bahr el-Ghazal happens to be insignificant and incapable of sweeping away the floating masses, a block is the result.

TRIBUTARIES OF THE NILE.

According to Sir Samuel Baker ("The Nile Tributaries of Abyssinia," preface), the two great Abyssinian affluents, the Blue Nile and the Atbara, which though insignificant during the dry season, are streams of extreme grandeur from the middle of June to the end of September, are the origin of the inundations, the sand deposit, and the fertility of Lower Egypt. In his words, "The Equatorial lakes *feed* Egypt; but the Abyssinian rivers *cause the inundations*."

Far larger volumes of water, however, come down the White Nile, but this, being a sluggish river, and fed by equatorial rains, and the never-failing reservoirs of the great lakes, may not have the same effect on the rising of the Nile in Lower Egypt.

The* great drains of Abyssinia are the Atbara, Setit, Salâm, Angareb, Rahad, Dinder, and Blue Nile. They all have a uniform course from south-east to north-west, and meet the Nile in two mouths by the Blue Nile at Khartûm in lat. 15° 30', and by the Atbara in lat. 17° 37'.

The Blue Nile and the Atbara pour their floods into the main Nile in the middle of June. At that season the White Nile is at a considerable level, though not its highest. The sudden rush of water from Abyssinia causes the inundation.

THE ATBARA.

The Atbara. The Atbara, known also as the Bahr el-Aswat or Black River, carries a larger proportion of soil than any other tributary of the Nile. It is about 450 yards in average width, and from 25 to 30 feet deep during the rainy season. It is the last tributary of the Nile, whose course from here to the sea is about 1,100 miles in length. The absorption and evaporation through the sandy deserts must be enormous.

The Atbara, though so important a river in the rainy season, is more or less dry for several months of the year, and presents nothing but a sheet of glaring sand like the desert it flows through. For upwards of 150 miles from its junc-

* "Albert Nyanza." Baker.

tion with the Nile it is perfectly dry from the beginning of March to June. At intervals of a few miles there are pools or ponds of water left in the deep holes below the general average of the river's bed. In these pools, some of which may be a mile in length, are congregated all the inhabitants of the river, crocodiles, hippopotami, turtles, fish, &c.

The rainy season commences in Abyssinia in the middle of May, but the first rains are absorbed by the parched soil, and the torrents do not fill till the middle of June. From June to September the storms are terrific, and the Atbara becomes a vast river, joining to its own volume the waters of its tributaries, the Setit, Royân, Salâm, and Angareb. Its waters are dense with soil, and covered with masses of drift wood.

After the end of the rains, in the middle of September, the Atbara disappears, but the rivers Setit, Salâm, and Angareb, though much reduced, still send all the year round a constant supply of water into the Atbara. This is absorbed, however, in the sandy bed of the latter during the dry season, and not a drop reaches the Nile. This illustrates what might be expected to happen to the waters of the Blue Nile and the Atbara in the Nubian desert, were it not for the steady volume supplied by the White Nile.

BLUE NILE (Bahr el-Azrek).

The Blue Nile during the dry season is so reduced that there is not sufficient water for the small vessels engaged in transporting produce from Sennâr to Khartûm. In this season the water is beautifully clear, from whence the name Bahr el-Azrek or Blue River. In quality the water is a great contrast to that of the White Nile. Blue Nile.

The course of the Blue Nile is through fertile soil; there is a trifling loss by absorption, and during heavy rains there is a vast amount of earthy matter of a red colour contributed by its waters to the Nile.

The principal affluents are the Rahad and Dinder flowing from Abyssinia.

The Rahad is entirely dry during the dry season, and the Dinder is reduced to a succession of deep pools divided by sandbanks. Rahad.
Dender.

SOBÂT.

The mouth of the Sobât is about 680 miles south of Khartûm by river. In January, 1863, Baker reports it as being bank-full, with a powerful current, and a depth of from 26 to 28 feet. The water is far superior to that of The Sobât.

the White Nile, but is yellowish in colour, and colours the Nile for a great distance. The power of the stream is so superior to that of the White Nile, that it banks up the waters of the latter as it joins them. This has the effect of heading back the floating vegetation.

Gordon gives the breadth of the river at about 60 yards. It is navigable as far as the station Nassar, once a stronghold of the slave traders. The sources of the river are as yet undiscovered, but there is no doubt it must to a great extent be of mountain origin, as it is coloured by earthy matter. Beyond Nassar seven different streams converge to form the main river.

The country on both sides of the Sobât for 60 miles is flat prairie, and marsh with low forest and huge grasses.

BAHR EL-JEBEL.

Bahr el-Jebel.

The Bahr el-Abaid or White Nile, properly so called, terminates at the mouth of the Sobât. From this upwards, the name given to the main stream is the Bahr el-Jebel.

38 miles up river from the Sobât is the mouth of the Bahr Zeraf. This branch of the Bahr el-Jebel was explored by Baker in 1869, when the sudd blocked his passage to the main stream.

Gordon describes it as a "ditch." It is, however, navigable at times, though very liable to be choked by sudd.

BAHR EL-GHAZAL.

Bahr el-Ghazal.
Lake No.

The junction of the Bahr el-Ghazal with the Bahr el-Jebel has the appearance of a lake (Lake No) about 3 miles in length, and one in width, varying according to the season. There is but little appreciable stream from the Bahr el-Ghazal, and it has the appearance of a back-water.

The river has a stream of about $1\frac{1}{2}$ mile per hour as it sweeps round the angle, and its breadth here does not exceed 130 yards.

The depth of the lake varies from 7 to 9 feet. The surrounding country is a vast flat with slight depressions. In the wet season extensive lakes are formed, and sodden marshes during the dry weather.

The Bahr Ghazal is navigable as far as the "Meshera" or landing place. It is further described at page 103.

Boats.

Native boats.

"The boats* which are used upon the upper waters of the

* Schweinfurth's "Heart of Africa, vol. i, page 50.

Nile are called 'Nugger;' their construction, I believe, is unlike what can be seen in any other country of the world. They are as strong as they are massive, being built so as to withstand the violent pushings of the hippopotami, as well as the collisions with the mussel banks which are scattered in various directions."

Landing Places.

Gordon* in writing from Nyamyongo in 1° N. latitude says:— Landing-places.

"It is a remarkable thing that from here to M'ruli (75 miles) the edge of the river is unapproachable, except through 100 yards to one mile of papyrus and marsh. From M'ruli to Foweira (73 miles) there are only two places where you can land on terra firma, exclusive of Foweira. From Foweira to Murchison Falls there may be landing places; from Murchison Falls to Magunga (18 miles) there are not more than three; from Mayungo to Dufi (135 miles) there are five landing places; from below Fola rapids to Rigaf (113 miles) you can land anywhere, while from Rigaf to Lado (26 miles) you can only land at one (Gondokoro) besides Lado. There is one place between Lado and Bohr (90 miles), at the Shir tribe; then you can land at the old mission below Bohr; then there is no landing place till the Sobât (360 miles); then none till Fashoda (60 miles), and for 100 miles north of it people do land, but it is over your knees in the rainy season."

WEST COAST OF RED SEA AND ARABIAN GULF FROM SUÂKIN TO BERBEREH.

SUÂKIN TO STRAITS OF BAB-EL-MANDEB.

Suâkin has already been described under "Towns," Suâkin. page 114.

Ras Makdah.—32 miles from Suâkin. The coast here Ras Makdah.
is low, barren, and sandy, and partly covered with bush.

Ras Asis.—25 miles from Ras Makdah: also low and Ras Asis.
sandy.

The coast from Suâkin to Khor Nowarat, an extent of 80 miles, is fronted by detached islands and reefs, some of which extend to 45 miles from the coast. The islands are

* "Colonel Gordon in Central Africa," page 191.

low and of coral. The water between them and the mainland is, as a rule, smooth, and anchorage can be made in 10 to 25 fathoms.

Khor
Nowarat.

Khor Nowarat.—The finest bay in the Red Sea. It is $4\frac{1}{2}$ miles broad and about the same long. The outer part of this bay is bordered by low sand and coral islands, which keep out the swell.

There is an island in the centre of the bay, round which a channel is formed. The soundings give from 4 to 6 fathoms.

Water.
Cattle.

The water is bad and scarce. Sheep and cattle are plentiful, and wood can also be obtained.

From the village of Akik, on the mainland, there is a caravan route into the interior.

There is high land to the west.

The Abyssinian coast from Khor Nowarat to the Straits of Bab-el-Mandeb is generally low and arid next the sea, gradually rising for 40 miles inland to the first of the three series of plateaux of which Abyssinia is formed. On this coast no river enters the sea, those that do exist losing themselves in the sand before reaching it.

Danakil.

The Danakil Province, consisting of a strip 40 miles broad, is rich in many productions, but the trade is small, Massuah being the only port.

The mountains bordering this fertile region are of great height.

Massuah.
Annesley
Bey.

Massuah.—This place is described under "Towns."

Annesley Bay.—In ancient times a place of great importance, where a large trade was carried on by the Greeks in the time of the Ptolemies.

Annesley Bay lies between the high land of Hartan on the east and the land of Guddam on the west. The breadth of the entrance is 12 miles, and the length of the bay 30 miles. Water may be obtained at Araphall, at the head of the bay.

Water.

Disei Island lies on the eastern side of the entrance to the bay. Here are some good springs of water.

Howakil
Bay.
Howakil
Island.

Howakil Bay, a large bight in the line of coast.

Howakil Island, in the above-mentioned bay. There is a small village on the island. There is anchorage off its north end.

Dahalak
Bank and
Islands.

Dahalak Bank and Islands.—This bank and the islands lie between parallels $15^{\circ} 25'$ N. and $16^{\circ} 38'$ N. They are composed of coral, fringed by reef. Turtles abound, and are caught on the shores.

Dahalak Island.—Its south side is 23 miles long, and its greatest breadth 78 miles. It has seven villages. Dhu Belluh is the principal one. The trade of the island consists in fish, turtle, and pearls. The water for drinking is

preserved in tanks filled during the rains, and there are a number of wells near the beach in the south-west part of the island. There are several other important islands on the bank.

The Massuah Channel passes between the Dahalak Bank and the mainland. It cannot be navigated safely at night time, as the islands are all low and shelving. The Massuah Channel.

Ras Sirbat lies 32 miles south-east of Ras Shakhs. Ras Sirbat.

Jezirat Kurdumujat is a rugged bluff island about 180 feet high, 13 miles south-east of Ras Sirbat, and $2\frac{1}{2}$ miles from the coast. Good water (during the rains) may be had on the coast opposite, where there is a trade. Jezirat Kurdumujat.

Eid Village, 12 miles south of Kurdumujat, has a trade with Moka in mats, goat skins, &c.; cattle are to be had, but water is scarce and brackish. Eid Village.

Jebel Abayil Islands.

Jebel Abayil Islands.

Ras Rakhmah.

Ras Rakhmah.
Ras Beilul.

Ras Beilul, 35 miles from Ras Rakhmah. Beilul Bay affords excellent protection from the south, but is exposed to the north winds.

Assab Bay.

Assab Bay.

The straits of Bab-el-Mandeb.

BAY OF ASSAB.*

The Bay of Assab is situated on the western coast of the Red Sea, about 40 miles from Perim, and about 150 from Aden. Between the islands, which bound it to the east and south-east, and the coast its length is about 15 miles, and its greatest width 5 miles.

The islands are very numerous, and extend in a north-westerly direction from Ras Sintuar. Together with the shoals, which are perpetually increasing themselves, they are of a coral formation, are low lying, and in part covered with bush.

These islands shelter the bay from the heavy seas raised by the south-east monsoons. The following are the names of the principal ones:—Fatmah or Margherita, Dalchos, Darmabah, and Giabil-celi.

A large and lofty island, Sennabor, lying to the north of Ras-Lumah, indicates the regular entrance to the roads.

Darmabah is the largest of the islands, and is about 20 miles in circumference.

To the north of Darmabah a reef extends in a north-westerly direction for 7 miles; at each extremity of this there is an island. The most easterly of these two islands is called Djeziret Dalchos, and the most westerly Djeziret

* "L'Exploration," vols. xi and xii.

Fatmar. The latter is about 2 miles long, is narrow, and covered with trees. The reef is 3 miles broad; it forms with the north coast of Darmabah a narrow channel leading into the bay. The entrance is between Ras Macallah and Djeziret Dilcose. The depth of water here varies from 16 feet 6 inches to 43 feet. This channel is known as the Rubbatino Channel, and is used by vessels coming from the south.

In "The Red Sea Pilot" the anchorage in the Bay of Assab is described as excellent, and it is also stated that "nearly the whole of the bay is skirted by a reef which extends to a distance of a mile from the shore."

In January, 1869, Commander W. S. de Kantzow, of H.M.S. "Star," reported that "the best situation for landing is at the western hollow or angle of the bay, but the water shoals very gradually, and for about 80 yards from the beach the depths vary from 1 to 3 feet. The beach then reached is only a sand ridge, *terra firma* existing a mile farther in-shore. . . . All along the margin of the bay the ground is swampy and muddy, caused by the high tide inundating the low ground. All the islands round the bay are mere sand cays, covered for the most part with cacti and other vegetation common in this region. They are destitute of fresh water."

In the south-east part of the bay are five small islands, situated on a bank of shoal water which extends $2\frac{1}{2}$ miles from the coast. Ras Sintuar is a low-lying marshy cape.

Towards the west and north-west a vast territory extends, which is of volcanic origin. It is broken, covered with lava, and presents a chaos of conical hills, deep valleys, and huge chasms.

The prevailing winds are, as is the case throughout the Red Sea, from the south-east during the six winter months, and from the north-east during the summer months.

During the south-east monsoons small craft cannot remain at their anchorages, but have to shelter at the islands or behind Ras Lumah. During the north-west winds, however, the bay is quite calm.

In the first case the thermometer rarely passes 89° Fahr., but with north-west winds is frequently over 104° .

Climate.

The climate is healthy. Small-pox is the most serious disease known, and Europeans suffer from skin eruptions, specially when the Khamshn blows.

Vegetation

Vegetation is sparse around Assab. There are only a

few palm trees and thorny acacias. Firewood can be obtained on the islands.

Water.

There is seldom any rain, and there are no streams. What water there is is bad, and is found in some small wells round the bay.

The vessels on the station supply themselves with water from Aden. At Assab itself a small quantity is distilled for the officials and Europeans.

"The Red Sea Pilot" says: "Water may be procured about $1\frac{1}{2}$ miles from the beach, a little to the southward of Ras Lunah, from three wells, and a running stream of water from the neighbouring mountains was discovered by Commander de Kantzow at 2 miles from the beach further south."

The most probable locality where water might be found is at the village of Margabelah, in the bed of the torrent Marrah.

Inhabitants.

The inhabitants are chiefly nomad shepherds of Ethiopian race, called Dunkali. They live in villages, each of which, composed of several families, is under a chief. They are poor and idle, and for the most part unclothed.

Their arms are the dagger and lance, and they also carry a shield of hippopotamus hide.

Their principal trade consists in the exchange of miserable cattle for dates and butter. Pearl fishing is carried on to a small extent.

The town of Assab is almost uninhabited. About 100 natives and the representatives of the Italian colony form the entire population, which includes the Royal Commissioner, his secretary, and an engineer. Two Italian vessels of war guard the harbour.

The only buildings are the Commissioner's house, one or two shops, a forge, a bakery, a military barrack in course of construction, the officers' club, a stable, and some tents.

At a little distance off, to the north-west, is the village of Macaca, situated in a sandy plain. It has about 40 huts and 200 inhabitants. A little further is a similar village, called Alali. To the south is the village of Margabelah, with about 500 inhabitants.

The whole population of the district is about 1,100. In addition to this the Italian Government extends its protection to the south over the Raheih country, which has about 2,000 inhabitants.

Wild Animals.

Ostriches, antelopes, wild asses, jackals, are to be found ; also occasionally leopards and hyenas. There are great numbers of sea birds, pelicans, and vipers.

SKETCH OF ITALIAN CONNECTION WITH ASSAB BAY.*

In 1869, with a view to consolidating Italian commerce in the Red Sea, the King Victor Emanuel empowered a certain Signor Giuseppe Sapeto to make investigations on the subject. This resulted in Sapeto buying Assab Bay and some neighbouring territory from the King Behéran for 47,000 francs.

Opposed by England and Egypt, for 10 years the real object of the undertaking was concealed by the Italian Government ; but in November, 1879, an expedition was sent out to take more formal possession of the place.

On the 27th December, 1879, the Sultan Behéran handed over to the representative of the Rubattino Company the bay with its 69 islands, and a district extending several days' march into the interior.

Egypt now again protested, and sent a vessel of war to Assab. The commander summoned a meeting of the chiefs of the neighbourhood, but these refused, saying that they were no longer under Egypt, and recognised the protectorate of Italy. The Egyptian commander contented himself with a formal protest, to which the Italian Government responded by taking official possession on the 9th January, 1881.

After some correspondence on the subject, Lord Granville proposed a convention between Italy on one side and Turkey and Egypt on the other. On the 9th October, 1881, Signor Mancini handed to the British Embassy a draft of the convention, which England accepted with some slight modifications.

Clause 1 contains the formal recognition by Egypt and Turkey of Italy's sovereignty over Assab.

The other clauses proclaim the commercial character of the establishment there, without prejudice to the adoption of necessary means for its defence. Italy recognizes the Turco-Egyptian sovereignty over the remainder of the coast.

The negotiations between England and Italy here came to an end. On the 27th March, 1882, Signor Mancini forwarded to Egypt a memorandum showing its claims to the coast below Massuah to be unfounded.

* *L'Exploration*, "vol. xi, &c.

On learning that Egypt refused the convention, the Italian Government declined to prolong the discussion, and declared its intention of carrying out the work it had begun at Assab Bay.

THE PORT OF BERBEREH.

The harbour of Berberéh is formed by a curve in the coast line, and a low sandy point projecting off shore. It is $1\frac{1}{4}$ mile wide at the entrance, and free from all danger, having 11 or 13 fathoms of water at its mouth, which depth decreases very gradually towards the shore, there being 5 fathoms of water at 400 yards distance. It affords good anchorage and complete shelter from all winds, except from the westward.

The low sandy point shelves rapidly in the water, which has 15 fathoms within 80 yards of it.

The town of Berberéh is situated at the head of the Town. harbour, and varies in population according to the time of year. It is divided into two parts; one of straw huts, occupied by the native population, and the other of more comfortable buildings, where the Egyptian officers reside.

The scarcity of water is a great drawback, as the two Water. wells belonging to the town are brackish. The supply is maintained by small channels bringing it from a distance of 2 or 3 miles.

There is a pier made of iron and wood for the use of Pier. vessels loading and unloading.

There is also a lighthouse situate some 2,000 yards to the Lighthouse. west of the port.

An annual market or fair is held, which lasts from Octo- Annual fair. ber to March. During this time the tribes from the interior bring in the produce of the country, such as ivory, gum, coffee, ostrich feathers, &c., which they exchange for cotton goods, shawls, wire, and so forth.

The trade is entirely in the hands of the Banyan merchants from Por-bander, Mandavi, and Bombay.

The population of the town is about 5,000, but during Population. the market season this rises to 20,000.

The Haber Awal branch of the Edûr tribe occupy the low lands, Berberéh and Karangarit, near Zeila, a fertile tract of country. An enormous number of sheep, camels, and asses are found at these places.

Sheep,
camels, and
asses.

COAST FROM BERBEREH TO ZEILAH.

The coast runs from Berberéh west for 40 miles, or until near Jebel Elmas; it then takes a north-westerly direction as far as Zeilah. The whole extent of this part of the coast is low and sandy, rising gradually towards the range

- of mountains which bound it in the interior at an average distance of 18 or 20 miles. *Jebel Elmas* is a rugged irregular mountain, the highest peak being rather over 2,000 feet above the sea.
- Khor Karangarit* is a small inlet distant 92 miles from *Berbereh*. It is shallow, and can only be entered by very small boats at high water; a low sandy plain extends from it to the foot of the mountains, which are about 20 miles distant. This part of the coast is uninhabited.
- Shab Karangarit*.—A dangerous rocky position 2 miles from shore and $5\frac{1}{2}$ miles E.S.E. from the *Khor*.
- Khor Maduji*.—Another small inlet.
- Shab Maduji*.—A dangerous rocky shoal $2\frac{1}{4}$ miles from shore and $1\frac{1}{2}$ miles in length.
- Ras Maskan*.—A low, round, and slightly projecting point, off which a reef of rock extends for a mile.
- Immediately in shore during the rainy season, or in December, January, February, there are several pools of fresh water in the bed of a watercourse. There are dangerous reefs north-east of the cape.
- The coast from *Ras Maskan* to *Zeilah*, a distance of 12 miles, is low and swamy, with a range of sand hills 30 or 40 feet high about 2 miles from the beach. It is fronted by a reef of rocks which extends in some parts half a mile from the shore.

PORT OF ZEILA.

- Zeila*. *Zeila* is a place of some importance, having a trade with *Moka* and neighbouring coasts.
- It is built on a low sandy point, nearly level with the sea, projecting to the north-east, and called *Ras Hamar*.
- The town consists of a mosque, 12 to 15 stone houses, and about 200 huts, the whole enclosed by a mud wall.
- Anchorage*. The anchorage is shallow and, on account of the numerous reefs, difficult of entrance after sunset. A vessel of 250 tons cannot approach within a mile of the town.
- The water is bad and has to be brought from the interior at a distance of 4 miles south-west of the town by means of a watercourse. There is a small tower and guard of five or six soldiers to protect watering parties at the source.
- The harbour is 2 miles wide north and south, and 3 miles east and west.
- Zeila* is the starting point for the caravan route to *Harrar*. There is another route from *Berbereh*, but it is insecure.

COAST FROM ZEILA TO TAJUREH.

- Coast from* From *Zeila* to *Jibuti*, a distance of 25 miles, the coast

is low and swampy, and thickly covered with mangrove jungle. Zeyla to
Tajureh.

Ras Jibuti is a low rocky point projecting to the northward from the coast for $2\frac{1}{4}$ miles. It is the south point of the entrance to Tajurah Bay. Ras Jibuti.

Mushah Islands.—A group of coral islands 20 to 35 feet high, and situate nearly mid-channel in the entrance to Tajureh Bay, which they divide into two channels. Mushah
Islands.

These islands were ceded to the British in 1840 by the Sultan of Tajureh.

At *Manga Daffa*, 5 miles from Jibuti, the mountains come down close to the sea, and then skirt coast as far as the entrance to the Red Sea. Manga
Daffa.

At *Khor Ambadu*, 19 miles from Jibuti, there is a stream of fresh water, off the entrance to which there is very good anchorage in from 12 to 15 fathoms. Khor
Ambada.

From *Khor Ambadu* to *Ghubbet Kharab*, a distance of 17 miles, the coast shelves rapidly, there being 25 to 60 fathoms right across the gulf. Ghubbet
Kharab Bay.

The coast from Karangarit to Khor Kharab is inhabited by wandering parties of the Essah Somali tribe. They are a powerful race, very numerous, and much feared by the Danakil tribe who inhabit the opposite side of the gulf.

Ghubbet Kharab in an extensive basin 13 miles long by 6 wide, situated at the western extremity of the Gulf of Tajureh. The northern and southern shores are formed of precipitous limestone cliffs from 400 to 2,000 feet above the sea. The western shore is strewn with lava and volcanic remains.

The entrance to this bay is only $\frac{3}{4}$ mile wide, and is divided into two channels by a rocky islet 40 feet high, named Bab or Gate. The tides rush through these channels with great rapidity.

The depth in the centre of the bay is 105 fathoms. The lava on the west side extends 2 or 3 miles inland to the foot of a range of sand hills which rise 200 or 300 feet above the plain. From the summit of these may be seen Bahr Assal, or the Salt Lake, 5 or 6 miles to the north-west. This lake is said to supply all Abyssinia with salt. Salt lake.

From the entrance of Ghubbet Kharab to Tajureh is $16\frac{1}{2}$ miles. The high mountains (3,000 feet) approach close to the sea until within 9 miles of Tajureh, when they recede about 3 miles, approaching the sea again 6 miles eastward of Tajureh.

The coast from Ghubbet Kharab to the entrance to the Red Sea is inhabited by the Danakil tribe, whose territory extends inland to the borders of the Kingdom of Shoa. They exceed 5,000 in number, and are split up into several The Danakil
tribe.

smaller tribes, viz., the Abd-Ali, the principal one to which the Sultan belongs; the Abli, the Debenk, and the Rukbeh. They are Mohammedans.

Ambabu. *Ambabu.*—A small village 4 miles south-west of Tajureh, where good water may be obtained, but the anchorage is unsafe.

Tajureh. *Tajureh.*—The sea front of the Danakil. It is a small village of about 100 huts and a few stone buildings, of which one is a mosque. Until recently it was governed by the chief of the Danakil tribe, who assumes the title of Sultan.

Harbour. The harbour is formed by a gap in the reef which extends 200 yards off shore, and outside which there is no bottom at 40 fathoms. There are 10 fathoms of water in the harbour, but the anchorage is very unsafe, with barely sufficient room for a vessel to swing.

It is only during easterly winds that native boats can lie there.

The natives from the interior during the months of January and February bring the produce of the country for sale.

French occupation.

In 1882 it was announced that M. Soleillet, a French traveller, had taken over the Bay of Tajureh ceded to him by the Sultan.

In former years France had the intention of occupying this port, but was thwarted by the vigorous action of Lord Palmerston.

The Egyptian Government, however, still lay claim to all this coast.

Tajureh, Ambabu, and Obokh are the only villages on the whole coast between Ghubbet Kharab and the entrance to the Red Sea.

COAST FROM TAJUREH TO ENTRANCE TO RED SEA.

Leaving Tajureh the coast is sandy, gradually rising towards the mountains in the interior, and fronted by a reef of rocks extending 200 or 300 yards from the shore.

Obokh. *Obokh.*—A village situated in an indentation on the coast about 5 or 6 miles west of Ras el-Bir.

In a group between the coral reef there is tolerable anchorage in 15 fathoms of water half-a-mile from the shore.

Water. Excellent water may be got at all times by digging 6 feet in the dry bed of a watercourse. The French purchased this place from the Sultan of Roheita, but have not established any station.

Ras el-Bir. *Ras el-Bir.*—A low sandy point rapidly shelving, which forms the north point to the Gulf of Tajureh

From this northwards as far as Jebel Jan the coast is low and sandy.

Jebel Jan.—About 18 miles from Ras el-Bir. It is the Jebel Jan. highest of three or four ranges of tabular mountains which reach a great elevation, and approach close to the sea.

From Jebel Jan the coast is low, sandy, covered with jungle, and fronted by rocky reef.

Ras Sejan.—13 miles north-north-west from Jebel Jan, Ras Sejan. forms the southern point of the entrance into the Red Sea. It is a gloomy-looking peak rising 380 feet above the sea.

REPORT ON COUNTRY OF ISSA, TOWN AND DISTRICT OF HARRAR, GALLAS TRIBES.

COUNTRY OF ISSA.*

On leaving the port of Zeila en route for Harrar,[†] the Road from Zeila to Harrar. country of the Somalis is first traversed. This district is formed to a great extent by the ancient country of Adel, and is inhabited by the following tribes:—The Danakil, the Ulad-Ali, the Issa, and the Gadiburssi.

The Danakil, the Ade-Ali or Ulad-Ali occupy the north-east part of the territory from Tajureh up to the boundaries of the Kingdom of Shoa.

The Issa tribe inhabit the north-west, and the Gadiburssi the east, south, and south-east.

The country of Issa extends from Warabli Guirabe 7 miles west of Zeila, as far as Galdessa, which is 189 miles south-west of that port.

From Zeila for 115 miles the route is practicable and comparatively easy, but after that the bush renders it more difficult.

From Galdessa to Harrar the road is so bad that camels can only walk in single file, and get along with difficulty.

For the first 115 miles water is to be found at about every six hours: but from Dallaymali there is a march of 12 hours without a drop. Further on it is to be obtained about every four hours, either from natural wells, streams, or wells dug out.

At 2½ miles from Zeila the road enters a forest of gum trees, aloes, and euphorbia, which it traverses for two days.

* L'Exploration, "1881, page 955.

† Notes sur le pays de Harrar, "par Mohammed Moktar, Chef d'Escadron, d'état-major général Egyptien.

The mountains met with are rocky, but the hills about Galdessa are of a chalky formation. The mountains are covered with aloes and euphorbia.

In the Issa country pasturage is not abundant; it is found chiefly in ravines and other moist places, but depends entirely on the amount of rain.

Although the land is hilly, the ground can be cultivated with advantage when irrigation is obtainable.

Inhabitants.

Inhabitants. The people of Issa are divided into three principal tribes:—

1. The tribe Ebgali of 47,000,
2. „ Wardek of 38,000,
3. „ Dallul of 45,000.

Each tribe is divided into three or more "*Fakhidah*," and these are again subdivided into "*Rere*."

The total population is accordingly about 130,000.

The different tribes are nomads who roam the country between Tukhucha, Galdessa, and Darmy, and are in continual strife with their neighbours the Gadiburssi and Danakil.

The Issa tribe are renowned warriors, but are nevertheless scarcely a match for the Gadiburssi, who are splendid horsemen and possess a good breed of horse.

Occupations.

Occupations. Their total industry consists in agriculture and in letting out their camels for hire. They are so indolent that they do not let them out more than once or twice a year, unless they are reduced to the last extremity.

Camels. The camel is everything to them; they drink its milk, and when it is old and worn out they kill it for meat.

They live under shelter made of the camel-saddles placed side by side. They never ride these animals, believing that the camel if ridden dies soon after. The camel drivers are of both sexes.

Clothing.

Clothing. The clothing of the Issa people is limited to a mantle of white linen; the lower part of the body is covered but the breast is bare.

They wear sandals, and invariably carry a dagger. The women go barefoot.

Commerce.

Commerce. The commerce is very restricted.

They bring their merchandise to the port of Zeila, and take the opportunity, when there, of loading up their camels with salt, which abounds. This salt they transport to Harrar, and exchange it for dhûra or maize. Each camel carries 36 ankebs; these are sacks made up of palm leaves, and weighing when full 8½lbs.

Although the salt only costs them the transport, it is impossible to procure it in Harrar under 20 piastres the ankeb. It is a great source of profit for the agents.

The Issa who live near Zeila sell butter made from goats' and cows' milk. Those who penetrate to the interior bring back gum, coffee from Harrar, saffron, and ostrich feathers.

There are two roads from the Issa country to Harrar, one by Galdessa, across the country of the Gallas Nollis, the other by Darmy, and through the Gallas Garssi. Two roads from Issa to Harrar.

HARRAR.

Harrar.

Topography.

The country of the Gallas Nollis, which is traversed by the road from Galdessa to Harrar, is difficult and mountainous, but is rich, fertile, and well watered, and in these respects a great contrast to the Issa country. This region extends about 43 miles from the town of Harrar.

Harrar is built upon a rocky hill, which commands the surrounding country, but is itself commanded by the mountain Hakime, which, situated at a distance of from 2 to 2½ miles, is 600 feet higher. The neighbourhood is inhabited by the Gallas Ala.

To the east, at 7 miles from Harrar, are the mountains of Garssi, peopled by the Gallas Geurri and Garssi; to the west those of the Nollis and Alla; and to the north, at 2½ miles distant, the hills of Sekudtcha.

All these mountains are rocky, with the exception of a small part of Mount Hakime, which contains excellent chalk. This was worked under the direction of Raouf Pasha. Chalk.

From Mount Hakime nine streams flow out, five of which pass to the south of Harrar, and four to the north. Those flowing to the south are mere rivulets. They pass at a distance from the town, and end in ponds; they contain but little water, except during the rains. Streams.

Those to the north, on the contrary, are abundant; the first passes at about 4 miles from Harrar, and the second, which is little more than a mile distant, is the largest of all. Its mean depth is about 1 foot 4 inches, and its breadth varies from 13 to 26 feet.

The two other streams are only branches of this one, which in fact forms the entire water supply of Harrar.

The water is a little chalky, but sweet.

The town of Harrar. The town is 232 miles from Zeila. Its latitude $9^{\circ} 22' 48''$ N., and its longitude $42^{\circ} 20' 15''$ E.

It is surrounded by a stone parapet varying in height from 4 feet 6 inches to 9 and 12 feet, built of stone from Mount Hakime, and cemented with a species of tenacious red clay, found in the country.

The wall is provided with 24 loopholed towers. It is probably impregnable to native attacks, but would not resist field artillery.

The houses are built of stone, and whitened inside with a white clay; they have no upper stories.

The town is built on the side of a hill, and the streets are irregular and steep. There are upwards of 9,500 houses and 540 huts.

Besides the inhabitants, which number 35,000, there is accommodation for 3,000 or 4,000 soldiers.

Climate. The town, being situated 5,582 feet above the sea level, is cool and healthy, the diseases peculiar to hot climates being unknown.

Diseases. Heart disease is the most common ailment among the inhabitants. It may be attributed to the damp air, the difficulty of toiling up and down the steep streets, and the immoderate use of a plant known as *katte*.

The diseases to which strangers are most liable are dysentery and sores; the latter, however, can be readily cured if taken in time.

The treatment recommended by an Egyptian doctor was to place the patient near a fire during the night, to bathe the sores with diluted sulphuric acid, and to lay a plate of lead on them.

The rains. At Harrar the rains begin about the 15th of March, and last for six months; at first they are slight, but after the month of June, come down in torrents, which sometimes last four or five days without break.

During the hottest season the temperature in the shade rarely passes 61° Fahr.; and in March and April, during the rains, is constantly maintained at 16° above freezing point.

Though a healthy climate, it is not suited to persons of weak constitution, or weak lungs.

Manners and Customs.

Manners and customs. The people are the most austere of Mussulmans. The Kadis preside at all trials, and their power is absolute.

In manner the Harraris are affable, but are deceitful

and treacherous. They are avaricious, and essentially commercial.

Education receives much attention ; the children learn reading and writing in small schools, and the grown people in the evenings study Mussulman law with the Kadis.

The women hold a high position in their households, but take their share in all work.

The Harraris drink a decoction of the dried and washed leaves and bark of the coffee plant.

With rare exceptions each man has only one wife, and divorce is almost unknown.

The dress consists in a "tobe" or toga. A garment Dress. made of cloth, woven in the town itself, and which envelops the whole body with the exception of the head.

The men wear sandals.

The women wear a long shirt of black cloth with a white belt. They arrange their hair in a complicated fashion, and cover their bodies with grease.

The people are very sober and simple in their living. Food. The principal food consists in a soup made from Dhûra, with pieces of meat mixed in it, and the whole seasoned with red pepper.

On a voyage they carry with them, by way of provisions, barley, wheat, or roast Dhûra.

They are fond of chewing the leaves of a tree called "katte," which they believe possessed of various virtues ; it is more or less intoxicating.

A great part of the population drink a kind of beer, made of fermented Dhûra and called *gulah*.

Agriculture.

The country of Harrar is pretty well cultivated, but Agriculture. might be made far more productive.

The Harraris being inhabitants of the town, the cultivation is generally carried on by the Gallas.

Wheat is grown similar to that of Algeria or Tunis. Maize also succeeds well.

Lentils, beans, garlic, onions, and cotton are found ; the latter is inferior to that of Egypt, but, nevertheless, makes good cloth.

The Gallas also cultivate a kind of saffron called "warth," aniseed, sesame, barley, poppies very rich in opium, gourds ; but the chief product is coffee, for the culture of which this country seems eminently adapted, and the quality is as good if not better than that of Moka. Raouf Pasha, the governor, has largely encouraged the growth.

Sugar-cane is also grown, likewise chick-pea, and a kind of inferior tobacco.

The fruits found are bananas, lemons, bitter oranges, pomegranates, and 14 kinds of grape, but there are very few vegetables.

The Harraris fix the different periods for cultivation according to the Persian calendar.

Trades.

Trades. Trades scarcely exist; most of the necessary articles which they employ are imported from Arabia.

The manufacture of cloth is an exception to this, that produced being the best found in the Sûdan.

Bookbinding is also practised to a certain extent.

Commerce.

Commerce. The situation of the town of Harrar in the midst of the Gallas tribe makes it a commercial centre of growing importance.

The commerce may be divided into two branches:—

1st. The Asiatic branch, which consists in the importation to Harrar of products of Arabia.

2nd. The African branch, in the importation to the town of Harrar of produce from the different Gallas tribes. This is afterwards sent into the interior and to Abyssinia.

Thus all the merchandise from abroad or from the surrounding countries passes through the town.

It is true that a road exist from Tajureh to Shoa; but the hostility of the tribes through whose territory it passes is such, that merchants confine themselves to the two roads already mentioned, *i.e.*, that of Galdessa through the Issa country, and that of Darmy through the country of the Gadiburssi.

Before the Egyptians took possession of the province all the roads were unsafe; now military stations are erected to protect them.

Imported articles, such as European cloth, glass, copper, &c., are brought into Harrar by the Somalis of the coast. They receive in return coffee, butter, ostrich feathers, tanned leather, ox hides, &c.

Transactions are not as a rule carried on by means of money, but are matters of exchange.

Education.

Education. All children are taught to read and write in Arabic. Many of the people know something of arithmetic and

astronomy; they can calculate the Arabic, Coptic, and Gregorian calendars with exactitude.

GALLAS.

The Gallas tribes dependent on Harrar are to be classed Gallas. in four groups :—

1st. The tribes to the north of Harrar.

2nd. " " west "

3rd. " " east "

4th. " " south "

Besides these, there are the tribes of Arrusi and Itto-Sherchch.

The tribes to the north are the Nollis, and the Garssi.

Those to the east are the Guirris and Babulis.

To the north-east the Barteris and Barsubea.

To the south the Uburra, the Itto-Sherchch, the Dana-kils, the Gallas Allas.

All the above are subdivided into Fakhidahs. The whole of the Gallas and the Issa may be estimated at two millions.

In going from Harrar to any of these tribes, the routes at first are over very broken ground, then plains covered with dhûra, coffee plants, sugar canes, &c., are entered on. There are streams in all directions.

Near Karsa the country is more broken and wooded, but is fertile nevertheless. At Argubeh the ground is flatter, and of exceedingly rich soil.

Near Mulâta it becomes very broken, and covered with thick wood.

Scattered through the country are the habitations of the Gallas. These are huts of large dimensions, whitened with "Shabah." The soil, which is red clay, forms an excellent mortar mixed with dung of animals.

All the habitations are surrounded by hedges of thorns and sometimes stone walls.

Manners and Customs.

In each tribe the Gallas are subdivided into two classes Manners and customs. perfectly distinct from each other, i.e., the cultivators (Kutto or Argatta), and the shepherds (Prutuma).

The latter are much the most numerous, and their nomad life has rendered them energetic and independent. They oppress the other class or cultivators.

They are also at constant enmity with the people of Harrar, whose merchants they occasionally fall upon.

These Prutuma are divided into groups or Fakhidah,

each of which forms a small republic, governed by a Council of 100 chosen by the oldest inhabitants. The members are elected every 16 years. The President or Buku has absolute power, but his tenor of office only lasts one year.

There is also a Senate of 300 members for a whole tribe. The President or Buku el Kibir is thus chief of the tribe. He commands the army, makes war or peace, and his authority is absolute.

The principal occupations of the Prutuma are to rob their countrymen the Kuttu, or to make war, and specially to pillage travellers and caravans going from Harrar to the coast, or to the interior of Africa.

The clothing of the Gallas men consists in a large piece of cloth which they make themselves, and call a tobe. The head and feet are bare, and a dagger is always carried in a leather belt.

The women are naked down to the waist, but wear a leather petticoat.

The Kuttu, or cultivators, are generally speaking industrious.

They had formerly to pay taxes to the Emir of Harrar for the privilege of wearing certain headdresses or sitting in his presence.

The Emir used to use, as his plenipotentiaries to the Gallas tribes, Sheikhs known as Doguines. These persons were considered sacred, and they were never molested.

The Gallas, however, looked on the Emir of Harrar as a vassal, or rather a sovereign, absolute in his own town, but whose existence depended on them.

If he displeased them they declared war, and cut off his communication.

Agriculture.

Agriculture. The country of the Gallas is extremely rich. The centre is well cultivated by the Kuttu, and they supply the towns of Harrar with the necessities of life.

Cows, bread, milk and honey, are in abundance.

Trades.

Trades. Properly speaking, the Gallas have no trades. They nevertheless make their cooking utensils and implements for agriculture. They also weave a thick coarse cloth, which is far below the value of that made in Harrar.

Fighting Qualities, Arms, &c.

Fighting qualities, arms, &c. The greater part of the Gallas tribes are brave and war-like, and live on raiding and brigandage. In battle they

always form in line of 10 to 12 ranks thick, so that the first who fall are speedily replaced by others. Their movements are made with great rapidity, and they can accomplish enormous distances without fatigue.

Their arms are the dagger, the lance, and bows and arrows. A few possess old flint muskets. They are excellent horsemen; their horses are small, but of nervous temperament, and capable of undergoing great fatigue.

Language.

The language of the Gallas differs from that of the Somalis and the Harraris; there are, however, some who can learn and recite the Koran.

TRAVELLING IN CENTRAL AFRICA.

ENSOR, in "Incidents of a Journey through Nubia to Darfur,"* gives some notes on travelling in the desert.

The "Hammals," he says, or camel drivers of the districts bordering the Nile about Wadi Halfa, generally manage to collect a supply of dry grass before starting, to help the more weakly animals through their journey; well fed and healthy animals, some time out of work, will easily travel for five or six days with only an occasional mouthful.

The usual distance travelled by a caravan per day is 20 miles, and the rate two and a half miles per hour. When in the neighbourhood of the Nile, the drivers

* Estimate for 12 months travelling in the Desert for two persons with servants, &c., given by Ensor in "Incidents on a Journey through Nubia to Darfur," p. 49.

The hire of camel per month may be taken at £2; in Cairo it is dearer, and goes up to £6 or over.

60 camels for the party is a safe estimate if others can be procured on the journey. If not it is not advisable to travel with less than 60.

	£	s.	d.
60 camels £2 per month each	1,200	0	0
Stores from London	137	14	1
" " Cairo	142	8	1
2 cooks at £5 per month each	120	0	0
2 men to help to pitch tents, &c., at 30s. per month each	36	0	0
Tents, beds, furniture, canteens, &c.	100	0	0
Expenses for sheep, milk, fruits, charcoal, &c.	100	0	0
	2,076	2	2

This includes everything but water skins, which may be had at a trifling expense.

From the above it may be seen that the cost is about £3 per head per day.

K 2

always go down to the river at night. In those parts of a journey distant from the river, mud huts are occasionally found as resting places for travellers.

Hiring
camels at
New Dongola.

In speaking of New Dongola, he says there are two different classes of proprietors who let camels out for hire, and with each class separate arrangements have to be made. The largest proprietors are the nomadic Arabs, and their camels are the best. The Wadi el-Kab forms the place of congregation for many thousands of camels in the dry season. Their owners are not very anxious to let them out for long distances, especially out of the regular tracks. They are compelled to supply them to Government at a certain price, this being the only tax they are subject to. The price to Darfur is 15 dollars, or £3 per camel; this includes one driver for every six camels.

The second class of drivers is only semi-nomadic, and live on the banks of the Nile. They being taxed like the settled inhabitants, are allowed to make the best bargains they can with the Government, and charge 22 dollars or £4 8s. per camel for Darfur. But their supply is only limited.

Speaking of the camel, Ensor says:—

Speed of
camels.

That he is essentially a traveller, rest for him is an abnormal condition; he is utterly unsympathetic, and it takes a great deal to alarm or excite him. At certain seasons the females are dangerous to ride, being liable to bolt; the male is much the safer animal. The Egyptian camel has one hump; some of the better class are trained for riding purposes, and often attain to a speed of 7 or 8 miles an hour; these "hygeems" are, however, rare. The difference between a "hygeem," or dromedary, and a baggage camel is that which is between the race horse and the cart horse.

Endurance
of camels
without
water.

There are many different statements printed respecting the number of days a camel will endure without water. It entirely depends on what work he does, and the heat of the climate in which he works. Ensor rode a camel for 16 days in February, and it never drank during that time. The temperature seldom exceeded 70° Fahr., and the nights were cold. In the month of June, with the thermometer at 100°, the camels were often without water for 10 days, and pretty well worked during the time, but they were picked animals.

Generally, camels will work better if allowed to drink every five or seven days. It is difficult to choose a camel for a long journey, and better to leave the matter in the hands of the guides.

At page 131 Ensor states that on short distances, when the state of the camels at the end of the journey cannot be

taken into consideration, it is sometimes possible to travel, on well-conditioned animals at their normal pace, for 16 hours a-day, and journeys of 250 miles have sometimes been made at this rate. At the expiration of that time, however, the camels will require a rest of 10 or 12 days before being again fit for work; and, moreover, many of their number may have given in and died on the road. On long journeys, where it is necessary to husband the strength of camels and men, it is always best to work them only for eight hours per day, and if the wells are four or five days' journey apart, to allow them to rest for two or three days. 12 miles a-day, including stoppage at the wells, and delays from all causes whatever, is generally considered a fair rate of travelling. A rate much exceeding this will fail to keep the camels in health and fitness for long and continuous work.

Rate of travelling.

Colonel Gordon says that he considers the powers of endurance of the camel have been overrated, and that they cannot go for 10 days without being considerably distressed, and that six days is the average for good camels.

Endurance of camels.

As regards wagons, Colonel Colston says in his "Report on Northern and Central Kordofan," that it is strange the natives have never tried to make use of wheeled vehicles, nor even use their fine oxen for ploughing. The wood found in the country would make tolerably good wheels, for sakiyehs are made of it. The deep and shifting sand which prevents the use of vehicles in Lybia and other deserts is not found here. The chief difficulty would be to make wheels able to hold together in spite of the great heat and extreme dryness. He also states that it would be necessary to use camels as draught animals, for which purpose they are well fitted. A wagon with four camels would easily transport the loads of 12 to 15 camels. The wheel tires should be 10 to 12 inches wide, and it would be best to have wheels entirely of iron.

Wagons.

The transport* in the Equatorial provinces is still carried on by porters; ox wagons have not been introduced, and an attempt made by Gordon Pasha to introduce transport by elephants was not successful. Some authorities object that African elephants cannot be used for this purpose, but we have it on record that in olden times they were largely employed.

Transport.

Elephants.

Each squad of 10 or 20 porters has a soldier over it, who is answerable for the loads, and looks after them and the men on the march.

Porters.

It is almost impossible to persuade the people to march

* "Uganda and the Egyptian Sôdan," Wilson and Felkin.

at night, partly from their fear of wild animals, and partly from their belief in the evil influence of the moon. They also object to start early in the morning on account of the heavy dews.

ROUTES.

TABLE OF DISTANCES TAKEN FROM "COLONEL GORDON IN CENTRAL AFRICA." Edited by GEO. B. HILL, Esq.

I.—*Camel Routes across the Deserts.*

	Miles.		Miles.
Masseuah to Keren ...	120	Shakka to Obeyiad ...	380
Keren to Kassala ...	160	Omchanga to Towaisha ...	80
Kassala to Kedaref ...	120	Towaisha to Darra ...	80
Sennâr to Abu-Haraz ...	50	Darra to Kalaka ...	90
Khartûm to Obeyiad ...	180	Kalaka to Shakka ...	120
Obeyiad to Foga ...	140	Darra to Fufar ...	60
Foga to Omchanga ...	50	Suâkin to Berber ...	280
Omchanga to Fasher ...	60	Berber to Merowa ...	150
Fasher to Kobeyt ...	35	Khartûm to Debbeh ...	220
Kobeyt to Kolkol ...	160	Dongola to Wadi Halfa ...	200
Fasher to Darra ...	130	Zeyla to Harrar ...	200
Darra to Shakka ...	180		

II.—*Routes in the Provinces of the Equator.*

	Miles.		Miles.
Khartûm to Fashoda ...	490	Magungo to Murchison Falls ...	18
Fashoda to River Sobât ...	60	Murchison's Falls to Anfina's Isle ...	42
Sobât to Rabat Shambéh ...	270	Anfina's Isle to Foweira ...	10
Rabat Shambéh to Bohr ...	90	Foweira to Mruli ...	73
Bohr to Lado ...	90	Mruli to Nyamyongo ...	80
Lado to Gondokoro ...	10	Nyamyongo to Urundogani ...	14
Gondokoro to Regâf ...	16	Urundogani to Ripon Falls ...	40
Regâf to Bedden ...	13	Dufli to Fatiko ...	54
Bedden to Kerrie ...	28	Fatiko to Foweira ...	76
Kerrie to Mugl ...	13	Dufli to Fashelio ...	9
Mugl to Laboreh ...	27	Magungo to Keroto ...	54
Laboreh to Dufli ...	45	Keroto to Masindi ...	44
Dufli to Magungo ...	135		

ROUTE I, FROM CAIRO TO DEBBEH
Report by Col. Colston, December 1874.*

Date.	Stages.	Days.	Hours.	Miles.	
1874 Dec. 5	Cairo	...	...	...	Expedition left Cairo at 2 P.M. Personnel and matériel on board a dahabieh and a large barge towed by a steamer.
" 24	Sint, Kenneh, Enneh	...	...	...	Little seen but the banks of the river with their varied vegetation.
" 20 1875 Jan. 1	Assuan, 1st Cataract	...	...	...	Further up the Nile, on the right and left the Lybian and Arabic mountain ranges approach the river and recede from it.
" 4	...	...	...	...	After stopping to take in coal at Sint, Kenneh, and Enneh, the expedition reached Assuan.
" 7	...	...	...	...	At Assuan people and baggage transferred round the cataract by rail.
" 9	...	...	...	...	Between the first and second cataracts the navigation is very uncertain for sailing boats, as it depends on force and direction of the wind.
" 18	...	...	...	...	Left Philæ.
" 19	...	...	...	...	Pass the temple of Gerf Hossayn.
" 20	Sarras	...	9	...	Reached Koroško.
" 21	Murki	...	1	...	Abu Simbel, where there is a temple excavated in the solid rock.
" 22	Mongrid Sannet	...	3	...	Reached Wadi Halfa, where the water transport ceased.

* "Report on Northern and Central Kordofan," by Col. Colston.

Date.	Stages.	Days.	Hours.	Miles.	
1875 Jan. 23	Mokannasser	...	7	...	Proceeded across a plain of quartz gravel, with granitic points rising from it, and surrounded by volcanic hills. The station of Mokannasser is situated a little above the island of Tommuka. At this place the Nile is not more than 500 yards wide, and is not rapid.
" 24	Song Okma	... ...	3½ 1½	... ...	Passed Song, where there is a small cataract. Arrived at Okma. The geological character of the country the same as on the previous day. At Okma there are some cultivated lands and a few groves of palms.
" 25	...	...	...	...	Remained in camp. The hot spring of Okma is on the banks of the Nile, about 100 yards from the edge of the water at low Nile. The temperature is about 50° C. The spring has no perceptible taste, but a slight smell of sulphur. There is a house near for invalids. The mountains of the eastern chain come down here to the river bank, and form rocky isles and rapids. The river is about 300 yards wide.
" 26	...	...	...	...	Leaving Okma in a south-westerly direction, the route passed over schists, slates, and grass.
	Kûlb	...	1	...	Passed the island of Kûlb. Here the mountains of the Lybian chain come down to the river.
	Dal	...	1 1½	... ...	The banks are of the same formation and on both sides rocky and steep for about 100 feet in height. On the rocky islands are the ruins of two or three castles.
" 27	...	...	...	...	Passing mouth of Wadi Kûlb, the route arrives at the summit of a large plateau. This tableland is traversed in less than an hour, and the island of Dal is reached, and thence to station of same name.
	Jebel Arrawak	...	2½	...	Near this station the plain begins to be covered with large detached boulders of grey and red granite with very large crystals. They take fantastic forms, and compose the mass of the surrounding hills and mountains. A sudden change in the formation. Schists and slates succeed granite, boulders disappear, and forms of the hills are changed.
	Sakiet el-Abd	...	5	...	Passed Jebel Arrawak, a large conical mountain of volcanic origin, which can be seen to a great distance. The road passed over is firm compact gravel. For a distance of more than a mile from the Nile the plain is covered by small sandy hills, where many sunb bushes grow.
	Island of Saye	...	...	...	Arrived at Sakiet-el-Abd. On each side of river are imposing mountains, called Jebel Tibk. The river here is 800 yards wide, and is deep, but has a feeble current. There is much cultivable land, many crops and large groves of palms on the east bank.

" 28	Wadi Hamyd	...	...	...	3	...	Arrived at Wadi Hamyd through deep sand. This is at the upper end of the island of Saye. On the island is a mountain 200 or 300 feet high.
" 29	Alonetti	...	...	...	...	...	A little above Wadi Hamyd is the island of Alonetti, on which is a high square tower. There are villages and a good deal of cultivation on the western side and on the island.
" 30	Guba-Salem Wadi Abkûl	...	...	...	3½ 1	...	Passed the village of Gûba Salem, with ruined temples of sandstone. Sandstone formation shows itself in mass.
" 31 Feb. 1	Solb Kohe " " Wadi el-Sayr	...	...	...	1½ 4 " 1	...	Passed Wadi Abkûl, which forms a very wide plain, and leads west-south-west to Jebel Abkûl. Arrived at Solb, opposite island of Naoni. Arrive at Kohe. Sandstone has disappeared, and given place to traps, schists, and slates. At Kohe the bed of the Nile is composed of schistose rocks, which in some places show themselves above water, and will form a good foundation for the proposed railway bridge. Remained in camp. Passed Wadi el-Sayr and Wadi Shillabieh. The road passes a tableland of compact gravel. At first schists and slate are seen, then metamorphic sandstone, here and there points of granite and quartz veins.
" 2	Wadi Ludki Fakir Bender	...	...	...	2 5½ 2½	...	Hills between road and Nile 800 to 1,500 feet high. Other and yet higher mountains come down to the water's edge on the east bank. Passed Wadi Ludki, from which the road soon enters a region of great granite boulders and granite hills. Arrived at Fakir Bender. Opposite this place are the islands of Fogo and Diane-Draana.
" 3	Kabûga	...	...	...	2 1 1	...	Granites and porphyries form picturesque islands in the river. Passed Jebel Aliberxi, an isolated granite hill, which rises on the western bank to a height of about 360 feet. Arrived at Kabûga station.
" 4	Hannek, 3rd Cataract Hafir	...	...	...	1 1 2½	...	Passed the island of Simmet. Passed the island of Mushab, on which are large buildings and tombs. Having passed the cataract, the road crossed a large alluvial plain, periodically covered by the inundations. Here were many well cultivated fields and villages. Station at Hafir.
" 5	Zawarat	...	...	...	6	...	The road still lies across the plain, and alongside cultivated fields. Encamped at Zawarat or Orzarat. Here the Nile is about 1,000 yards wide, with small islands and sandbanks visible.
"	Dongola	...	...	...	...	...	The road crossed a wide plain of rich land, only a portion of which is cultivated. Crops very fine. Arrived at Dongola.

Date.	Stages.	Days.	Hours.	Miles.	
1875					Dongola is an insignificant town in the midst of a very fertile plain, which extends back from the river for 2 or 3 miles to some small hills of sandstone, of which the surface is covered with quartz pebbles. The crops are fine, but if cultivated the land would produce ten times the quantity.
Mar. 18	Hannek	...	3½	...	Left Dongola and arrived at Hannek. The alluvial plain narrows in gradually as one follows up the Nile, and at Hannek the sandstone hills come down to the river bank.
"	Schaba	...	3½	...	Arrived at Schaba. Here the sandstone hills come down to the river's bank, and the same formation extends to the other side of the river.
" 19	Jedf Handak (Tchameh)	...	2½ 7½	...	Leaving Schaba the sandstone still continues, leaving a fringe of cultivated land. Handak is a large town, situated on a sandstone hill. There are here some good houses built of stone, one and two storeys high. It is said many rich merchants reside here.
" 20	Old Dongola	...	1½	...	The road leaves the Nile on the left, and crosses a plain.
" 12	Debbéh	...	11 6	...	Arrive at Old Dongola (Dongola el-Agûz), and arrives at Debbéh. The cultivation extends far beyond Debbéh. Debbéh is a small insignificant village on the banks of the Nile. On the east bank one sees nothing but dunes of moving sand, with here and there a very narrow belt of verdure. Both above and below Debbéh, on the western bank, the cultivation is good and widely extended. On the borders of this cultivated land there are many houses, and the region is thickly populated. Description of town elsewhere.
					Colonel Colston states that carriageable roads could without difficulty be made over the plains to Kordofan, that a good teamster could now without difficulty drive a loaded six-mule wagon from Debbéh to El-Obeiyad, and that the route to Khar-tum is still more practicable.

ROUTE II, FROM KOROSKO TO ABÛ-HAMED, MAY,
1861.*

The route from Korosko across the Nubian desert cuts off the chord of an arc made by the great westerly bend of the Nile. This chord is about 230 miles in length. Throughout this barren desert there is no water, except at the half-way station, Muráhd (mura, bitter). This, although salt and bitter, is relished by camels. During the hot season the heat is intense, the thermometer ranging from 106° to 114° Fahr. in the shade during the day, but falling to 78° at night. Sir S. Baker was obliged to make a forced march in seven days, to save the water supply, which was rapidly evaporating in the closed skins.

During the cool months, from November to February, the desert journey is not disagreeable; but the vast area of glowing sand, exposed to the scorching sun of summer, in addition to the withering breath of the simoon, renders a forced march very fatiguing.

* "The Nile Tributaries of Abyssinia.

Stage.	Days.	Hours.	Miles.	
Korosko	...	...	...	The halting place for all vessels from Lower Egypt with merchandise for the Sûdan. The Nile district here is dreary beyond description, as a vast desert devoid of cultivation spreads itself on all sides. Korosko is not rich in supplies. A few miserable Arab huts with the usual fringe of dusty palm trees compose the village, which is but a narrow strip of a few yards in width on the margin of the Nile. An old sycamore is the only redeeming feature.
Murâhd	...	47	...	Leaving Korosko, a level plain of orange-coloured sand is entered on. Rows of broken hills of black basalt here and there vary the monotony. Occasional conical tumuli of volcanic slag rise to a height of several hundred feet, and the plain is strewn with volcanic debris. Murâhd, or the "bitter well," is a mournful spot. The well is an extinct crater, surrounded on all sides but one by precipitous cliffs about 300 feet high. The bottom is a dead flat, and forms a valley of sand about 250 yards wide. Here salt and bitter water is found at a depth of only 6 feet from the surface. The heat here is very great.
				To the north of Murâhd, at about 8 miles distant, slate is met with, but 4 miles to the south of the well, grey granite takes the place of the volcanic rocks. The desert is here a vast plain bounded by a range of rugged hills on the south. A few stunted mimosa are to be seen here and there. It was in this desert that, at the time of the first conquest of Nubia, some Egyptian troops being deceived by the mirage lost their way in search of water, and perished to a man.
Abû-Hamed	...	45	...	The day after leaving Murâhd a second chain of rugged hills of grey granite, about 600 feet high, is passed through, from which the road descends into an extensive plain, where huge granite hills like pyramids crop up at great distances apart.
				So dreaded is the desert between Korosko and Abû-Hamed, that Saïd Pasha once ordered the route to be closed, but it was opened again upon application of the foreign Consuls, as the most direct route to the Sûdan.
				The time taken on the journey was 92 hours of actual marching, a loaded camel doing about 2½ miles per hour.
Total	...	92	230	The average duration of daily march was upwards of 13 hours. There was a day's halt at Murâhd. The camels had 400 lbs. load. The usual load is 500 lbs.
				Sir S. Baker describes Abû-Hamed as a small village utterly destitute of everything. And the sterile desert extends to the very margin of the Nile.

ROUTE III, FROM ABÛ-HAMED TO BERBER.

From Sir S. Baker's Journey, in May, 1861.

Stages.	Days.	Hours.	Miles.	
Berber	..	57	143	The route is along the margin of the Nile, to which the desert extends. A fringe of stunted bushes and groves of the dôm palm mark the banks of the river by a thicket of about half a mile in width. The river at the time of year in question formed a succession of rapids, being full of rocks. Navigation is more or less always dangerous, and impossible at the end of the dry season. The time actually occupied in marching from Abû-Hamed to Berber was 57 hours. The camels averaged 25 miles per day with loads of 400 lbs. Berber is a large town, in appearance similar to the Nile towns of Lower Egypt. The streets are dusty and unpaved, and the houses made of sun-dried bricks, and flat-roofed.

ROUTE IV, FROM BERBER TO KASSALA.

Travelled in June, 1861, by Sir S. Baker. See "The Nile Tributaries of Abyssinia."

Stages.	Days.	Hours.	Miles.	
Junction of Atbara with Nile	1 1	... ...	5 20	The route lay from Berber along the eastern bank of the Atbara, and the journey was performed on donkeys, dromedaries, and camels. Leaving Berber there was no difficulty in the route: the sterile desert of sand and pebbles was bounded by a fringe of mimosa and bush that marked the course of the Nile, to which the road at first was parallel. Arrived at junction of Atbara with Nile. On the east the barren sand stretched to the horizon; on the other side, within a mile of the Nile, the soil is sufficiently rich to support a certain amount of vegetation, chiefly dwarf mimosæ. The bank of the Atbara, about 25 feet high, is fringed with dôm palms. At this time of year the bed of the river was dry, and consisted of a sandy bottom 400 yards wide, with pools of water.

Stages.	Days.	Hours.	Miles.	
	1	..	..	From this point the route lay due east upon the river's margin through sandy coppices of thorny mimosa, which fringe the banks on both sides for about a quarter of a mile; beyond this all is desert.
Collodabad (Kalabab)	6	..	160	The Athara was nowhere less than 400 yards wide, and the banks 25 to 30 feet high; these are overflowed during the floods. Great numbers of dôm palm grow on the banks. The fruit of the dome palm is the chief support of the desert Arabs in times when corn fails. There are many pools of considerable size and depth. In flood time a tremendous torrent sweeps down the Athara, and hollows out depressions in its bed, which retain the water. These are full of fish, crocodiles, turtles, hippopotami, &c. The journey to Collodabad is monotonous, nothing but desert and the streak of vegetation along the river. Gazelles, geese, pigeons, and desert grouse were plentiful. The Arabs in the vicinity are Bisharin.
Gozerajup	..	..	60	This is the principal watering place along the deserted bed of the Athara. The river bed is here 500 yards wide, and the banks perpendicular and 30 feet high. Reached Gozerajup (Gos-Redjeb), a large permanent village on the south bank of the river. The route now leaves the river, and takes a south-easterly direction for Kassala, the capital of Taka.
				This portion of the desert is rich in acates and blood-stone. Exactly opposite Gozerajup four hills of granite rise to a height of 500 feet; for some miles the country at their foot is covered with scrubby bush, which abounds in gazelles and guinea fowl. The desert now ceases, and the soil becomes a fertile loam. The country during the dry season is barren, but during the rains covered with excellent pasture. Gozerajup offers a refuge to thousands of Arabs and their beasts when driven from the south by rains and flies.
Sujalup	..	..	40	The limits of the Bisharin Arabs are passed, and the country of the Hadendouh Arabs entered on. Arrived at Sujalup. The country is covered with jungle and vast plains of grass. Sujalup is well supplied with water throughout the hottest seasons by numerous wells. It is the first watering place between Gozerajup and Kassala. There are several villages in the neighbourhood, each with a series of wells, and gardens of cotton and tobacco. The jungle swarms with guinea fowl, and there are many antelope.
			25	The country from Gozerajup to Kassala is a dead flat, with no tree of sufficient size to shade a tent. There is no real timber in the country. In wet weather the soil becomes an impracticable slough. Cotton might be cultivated to a large extent. Within 25 miles of Kassala the country becomes flooded by the River Gash or Mareb, which, flowing from Abyssinia, passes Kassala. A large part of the country is rendered very fertile by it, but in the rainy season fevers abound.
Abre	..	..	..	A large village surrounded by forests of small trees.
Kassala	..	..	25	Destination.

ROUTE V, FROM SUÂKIN TO KASSALA

*From Report by Capt. Gascoigne, Royal Horse Guards,
dated 9th November, 1882.*

The route from Suâkin to Kassala is 280 miles long, across a desert, which, except during the rainy season, and for a few weeks following it, only at certain places gives sustenance to the flocks and herds of the wandering Bisharin Arabs who inhabit the country.

A telegraph line runs the whole way along the road, and there are 100 stations, at each of which a non-commissioned officer and 10 soldiers are stationed for the purpose of maintaining the line. The poles erected in the loose sand are being continually blown down.

This route is quite level all the way, except at one point, where it crosses a low range of hills. It is good travelling, but the scarcity of water renders it difficult for any beast of burden other than camels. In the 280 miles there are but 10 watering places, seven of which are wells.

The following is a table of 12 days' march with laden camels, in December, 1879, and a return journey in March, 1880:—

	No. of hours marching.	Miles.	
1st day	6	15	No water.
2nd "	11	27½	1st Telegraph Station, water.
3rd "	11	27½	2nd " " "
4th "	11	27½	3rd " " "
5th "	10	25	4th " " "
6th "	9	23	5th " " "
7th "	11	24	6th " " " hilly road
8th "	7	17½	7th " " "
9th "	11	27½	8th " " "
10th "	8½	20½	9th " " "
11th "	8	20	10th " " "
12th "	10	25	Kassala.

The road is very largely used by the caravans bringing gum arabic and ivory from the Equatorial provinces, and taking back Manchester cotton goods.

ROUTE VI, FROM SUÁKIN TO BERBER.
Dr. Schweinfurth, in September, 1868

Stages.	Days.	Hours.	Miles.	
Suákin	...	...	...	The town is described elsewhere, p. 144. This route leaves Suákin in a south-westerly direction. The first day's march is through a trying country, the plain uniformly level, but for 12 miles covered with huge black boulders that rendered progress difficult. A few miserable dried-up acacias. The coast plains, though practically level, slope gradually down towards the sea. The coast ridges enclosing the plain rise on an average from 3,000 to 4,000 feet, but some peaks attain 5,000 feet. Valley bounded by sloping walls of granite. Reached the first mountain pass, 3,000 feet above the level of the sea. Change from the suffocating air of the plain very refreshing. There is a great variety of plants and shrubs on the mountains, that is, on their sides towards the sea. On the other side bare rocks, with only the lowest parts of the valleys covered with any verdure.
	2	...	12	
Singat	2½	...	...	Passing through such valleys, Singat is reached. The valley of Singat is about 3 miles in breadth. It is enclosed by two lofty mountain chains running parallel to the coast and joined by a number of projecting spurs. On the broad sandy bed of the valley the Beduins erect their tents, and the greater part of the inhabitants of the town here pass the rainy season. When the valley is dry they return to the town, and the animals find their pasturage in its neighbourhood. The lofty mountains of Erkowit lie 20 or 30 miles to the south-east of Singat. Erkowit is another summer retreat for the people of Suákin, when the tents are pitched in a valley called Harressa. A bare boulder flat of black hornblende stones, extending several miles, divides the mountains of Erkowit from those bounding the valley of Singat on the east. Broad watercourses run between them, which, however, are only periodically filled, and that only for a few hours at a time. They are then adapted for the cultivation of corn. <i>Wadi.</i> All watercourses with a supply of moist soil upon the ground just sufficient for a few months, although not enclosed by heights, are comprehended in the term El-Wadi. Cheerless in the dry season, their sand flats become covered with vegetation after the first rains.
Jebel Ajakeb (Ajakeb)	...	...	...	Such is Wadi Sarrowit, half way between Singat and Erkowit. A stiff ascent from Singat leads westward to the water shed between the Nile and the Red Sea.

A broad wadi full of pasture is then descended. This is Wadi O'Mareg, and is a third summer retreat for the natives of Suakin. It is a green valley 2 miles broad. It does not form, as might be expected, a tributary of the mountain river Langeb, which joins the Baraka, but takes its course direct to the Athara, as do all the larger watercourses met with on the route in question.

Having passed the wells at Hormareb, and crossed a third chain, Jebel Tacerin, the great Wadi Amet is reached.

This wadi is bounded on the north by Jebel O'Kurr, a colossal mass visible as a landmark in the west for a whole day's journey.

The predominating rocks are greenstone and serpentine.

There are a few sorghum fields in Wadi Amet, which is a rendezvous for native shepherds.

Goats and sheep are abundant in the neighbouring valleys, but camel breeding is not carried on here as much as in the northern parts of Etbai, as the whole district of the Bisharin between the Nile and the sea is called. The breeders avoid the proximity of the great roads, fearing the raids of the military.

The goats are of a special breed, one of the varieties called Ethiopian, and found among all the nomads of the interior. The Bisharin keep larger flocks of sheep than of goats.

Value of a sheep is about 4s. Cattle are only found in the environs of Suakin and on the road to Taka.

Pasture on the route under consideration is not permanent throughout the year.

Leaving Wadi Amet, a high level is crossed, intersected by numerous watercourses deeply worn amidst the stones and rubble.

The Wadi Arab, flowing to the south-west, is the most considerable of these. The dry bed is bounded by shelving banks from 40 to 50 feet high, and the ascent is steep and difficult.

Passing westward, a hollow saddleback leads over a fourth of the parallel mountain ridges which traverses this part of Africa.

To the right, on the north, is the Jebel Wowinte and the peak of Bardab, which reaches a height of 5,000 feet. The road then descends into a wide plain spreading to the west of this height.

The Wadi Habohb is next reached, a watercourse 400 feet wide.

Passing Wadi Kokreb, which is 2 miles wide, Wadi Yumga is reached. Here the next line of mountain range is entered on, where is the much frequented well of Roway, a rendezvous for all nomads who wander in the neighbouring localities.

Here by order of the great Sheikh of the Hadendoab, a tribute, sanctioned by the Egyptian Government, is levied on every caravan that passes.

The Wadi Laemeb is next traversed, and O-Fik reached. This is the last mountain on the route, and beyond it is a desert as far as the Nile Valley, unrefreshed by a single spring.

At O-Bak is the last well. Here some Bisharin Arabs cultivate a little sorghum. From here a march of 60 miles leads to the next well on the confines of the Nile Valley. The road is now formed by numerous pathways, running side by side across a great boulder-covered flat in a west-south-westerly direction. Here the camels proceed in line, as upon open ground they rarely march in single file.

Wells at Hormareb, Jebel Tacerin, Wadi Amet

Wadi Arab

Jebel Wowinte

Wadi Habohb

Wadi Kokreb, Wadi Yumga, Well of Roway

Wadi Laemeb, O-Fik

O-Bak

ROUTE VII, FROM SUÂKIN TO BERBER.

From Report by Lieut.-Colonel D. H. Stewart, 11th Hussars, 12th January, 1883.

Stage.	Days.	Hours.	Miles.	
				Numerous sandy watercourses intersect the way, and groups of hills are to be seen on the horizon.
				The plains are formed of the finest quicksand blown up into hills, often as high as a house, and these form great impediments to the camels. Isolated masses of granite crop up here and there.
Abd-Kolod ...	...	...	...	After rain, pools form themselves, and the low-lying bottoms of Abd-Kolod become covered with grass.
Berber ...	...	...	...	From here the road again ascends to the Wady Abd Selem, the last wadi on the route. After the rains the soil is fertile, and is covered with sorghum fields.

Stage.	Days.	Hours.	Miles.	
				From Suâkin Island cross to mainland by causeway. Thence the road leads in a north-westerly direction, passing the wells which supply the town with water.
				The country, except in vicinity of the town, is a bare arid plain covered with rank grass, and scattered mimosa bushes. The soil mostly hard, with occasional patches of sand.
			12	The camping ground is at the foot of a low isolated ridge, and between it and a low spur of the Waratab range are five shallow wells of indifferent water. During the winter there are also one or more small ponds in the bed of a dry torrent.
		..		The inhabitants of all this district belong to the Hadendoa tribe. They own many camels, which are generally employed in the Suâkin—Berber trade.
				Road from this runs nearly west over a plain similar to the foregoing; mimosa bushes more dense; low bare range of Waratab to left; some rocky mounds to right.
Blr Handuk ...	...	...	5½	Direction bends a little south of west at the foot of a low spur. Bare hills and ravines to left. Mimosa bushes more plentiful. Some low rocky spurs crossed, and a range of rugged bare hills appear on the right. Numerous dry khors.

13					Gradual ascent to an altitude of 1,350 feet; ground hard and rather stony; mimosa bushes. Road bends north of west up narrow valley, and with a very gradual rise. Hills irregular. Altitude 1,800 feet. Crest of low spur.
6½					Slight descent into small plain surrounded by low hills.
...	Hambuk	...	...	...	Halting place; one well. Hence road runs nearly west, and continues to rise. Hills somewhat higher, and ravines numerous. Altitude 2,150 feet; crest of a low spur; bushes plentiful. A short stony descent along bottom of narrow ravine. Camping ground; two shallow wells, but water fair; altitude 2,300 feet. Road then follows a narrow sandy valley with few trees. Road bends south-west. Low sandy hills on either side; a few bushes and some trees. South-west, across a wide, open, and almost bare plain. Road runs along shallow ravines, and among low stony ridges. Camping ground, with two wells. Road gradually rising; surrounding hills increasing in height. Pond and two wells with good water; a few small trees. Altitude 2,300 feet. Camping ground in a very narrow valley or dedle. Hills on each side steep but low. A small pond and two wells with good water; a few small trees. This is the highest point on the road, and is about 2,870 feet above the sea. Hence south of west up a dedle, and then in a westerly direction. A bare open plain, covered with alternate strips of grass and stone, is crossed. To the right a succession of low rocky mounds. To the left a small village, with patches of cultivation.
2½					Across a low stony ridge. Open plain to the right. A shallow ravine. Altitude 2,550 feet. Across a low neck. Across another low neck. Altitude 2,300 feet. Camping ground in a narrow valley between spurs of Jebel Kokreb. One well of good water. Hence a little south of west. Road level, and winding among low rocky spurs. A spring and well under a low hill to the left. Line of demarcation between the Bisharín and Hadendoa Arabs.
9					Across a barren treeless plain with a hard gravel soil. Low granite ridges and boulders. Road level between low ridges. Stony treeless plain. Low hills on right. Road confined between low hills. Altitude 1,800 feet. A small open sandy plain, forming the point of junction of several shallow valleys. Two wells, revetted with stone, and 50 or 60 feet deep. Four good-sized trees near wells. A group of huts. Road leaves in a direction south of west through narrow valley between low stony hills. Altitude 2,100 feet. Jebel Gurrat seen to right. This hill reported to have many springs and villages. Short descent into Beerúd Valley, and then across a bare treeless plain.
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Stages.	Days.	Hours.	Miles.	
Wadi ed-Derûk	...	...	10½	Small gravel plain; no water or wood. Altitude 1,900 feet. Road hence enters a wide narrow plain devoid of water. The descent is gradual. For about an hour before leaving this station the path leads among mounds of shifting sand, through which it is difficult to find the way after dark. The halting place is in the middle of these sands. There are many wells of fair water, but they are being constantly filled up. It is said that the sandhills can be avoided by making a détour to the north. Road hence for about an hour continues among the shifting sandhills, then crosses a barren plain. Direct road to Kassala branches to the left. Camping ground. Altitude 1,300 feet. No water nor wood. A similar plain is then crossed. Altitude 1,200 feet. Patches of cultivation and a few trees. Altitude 1,200 feet. Cultivation on both sides of road. A large deep revetted well with good water. Altitude 1,112 feet. Town on right bank of Nile. Houses of mud. A small bazaar.
El-Bâk or O-Bâk	...	...	34½	
Bir Mahobeh...	...	...	24	
	...	...	17	
Berber	...	...	10	
	...	...	7	
Total ...	...	...	246½	

ROUTE VIII, FROM BERBER TO SUÂKIN

De Cosson, June, 1873.

Stages.	Days.	Hours.	Miles.	
	1	...	...	The town of Berber is situated at some distance from the shore, as when the Nile rises it overflows the banks. It is an important Nubian town, and has direct canal communication across the desert with Korosko on the Nile, and Suâkin on the Red Sea. On leaving in this latter direction, the desert is entered on; an arid reddish plain of corrugated sand and grit. The first well is reached. Not a sign of vegetation to be seen: in the distance some isolated mountains on both sides. At Jebel Dogaiah, to the south, there is said to be a very ancient well.

					No water or vegetation.
					A vast region of loose yellow sand, blown into ridges by the action of the wind. Into this shifting surface the camels sink deep at each step, and progress becomes very slow.
					A low range of sandhills, called Jebel Bab, is next crossed, and a plain entered on, which is terminated on the far side by a range of mountains.
					Here were some small wells dug in the sand, but the water is saline.
					A low chain of mountains is reached, that rise abruptly from the level plain, and are composed of a coarse, black, slaty rock, split into fragments, which gives them the appearance of vast cinder heaps.
					Here and there the yellow sand is visible, and large tufts of coarse desert grass. There are also some ridges of white quartz.
					Route continues through a labyrinth of low mountains, which extend in successive ranges to the Red Sea Coast. The intervening plains are level, and occasional vast amphitheatres of sand, 20 or 30 miles in circumference, are entered on; with here and there tufts of desert grass and stunted thorn bushes.
					No signs of water till end of fifth day's journey, when a well with fresh water is met with. Mountains now surround the road on all sides, relieved by a few trees. The dry bed of the Arayeb is crossed; the road itself running across a level plain.
					Several dry watercourses are then crossed, and a well reached.
					For some hours the dry bed of a river, called U-Carrin, is traversed, and crossing a spur another great plain is entered on, which takes a whole day to cross.
					The route leads into a mountain gorge, along the bed of a torrent. By digging to a depth of about 2 feet in the sand, clear good water was reached.
					The road emerges from the mountains to another great plain of sand.
					The foot of a red-coloured mountain, rich in iron ore, is reached.
					A labyrinth of rocky hills succeeds, through which the road winds along a dry watercourse.
					A verdant spot in the heart of the mountains, and covered with grass and shaded by a variety of trees.
					From here the way becomes more uneven, and descends a precipitous mountain path.
					The last range of mountains are now crossed, and a verdant plain (?) entered on, on the further side of which Suakin lies.
					Total distance, about 300 miles.

Jebel Bab

The Arayeb

U-Carrin

Suakin

ROUTE IX, FROM SUÂNIN—*via* WADI, O-DRUS AND KOKREB TO BERBER, BERBER TO KHARTÔM—LADO—
DUFLI—FOWEIRA.*

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Date.	Place.	Lat. N.	Long. E.	Days.	Hours.	Miles.	Transport.	Remarks.
1874.								
June 25	Suakin	19 07 66	37 20 46	...	...	...	Camels.	No hut. Good water.
26	Gemosah	...	...	...	2	...	...	Hut. Good water.
27	Handob	...	...	1	5	...	...	Hut. Salt water.
27	Wutu	...	...	1	4	...	...	No hut. Salt water.
27	Hambak	...	...	...	3	...	...	Hut. No water.
27	Olp	...	...	...	5	...	...	Hut. No water.
28	Disalle	...	...	1	4 1/2	...	...	Hut. Pretty good water.
28	O-Drus	...	...	...	9	...	...	Hut. No water.
29	Haritred	...	...	1	4 1/2	...	...	Hut. Very good water.
29	Fohr	...	...	1	8	...	...	No hut. No well, 2 miles from road.
30	Kokreb	...	...	1	8 1/2	...	...	Hut. Water.
July 1	Matiah	...	...	1	5	...	...	Hut. Good water.
1	Yungul	...	...	...	8 1/2	...	...	Hut. No water.
2	Arab	...	...	...	5	...	...	Hut. Pretty good water.
3	Matio	...	...	1	8 1/2	...	...	Hut. No water.
4	Alame	...	...	1	8	...	...	No wood. Hut. No water.
4	Alatsha	...	...	...	5	...	...	No hut. No water.
5	O-Bak	...	...	1	4 1/2	...	...	Hut. Well, salt water, mineral taste, very sandy.
6	Tamet	...	...	1	5 1/2	...	...	Hut. No water.
6	Abalot	...	...	...	10	...	...	No wood. Hut. No water.
7	Mohebe	...	...	1	8 1/2	...	...	Hut. Fairly good water. Sandy.
8	Berber	17 59 33	34 15 17	1	2 1/2	...	...	Water. Well very muddy.
					12 1/2	280	Steamer.	
21	Berber	16 45 0	33 15 0	9	...	...	...	
29	Shendi	...	...	...	...	...	...	
3	6th Cataract	...	...	5	...	...	...	
Aug. 9-13	Khartum	15 37 4	32 33 39	5	...	...	...	
16	El-Koweh	...	...	4	...	...	...	
18	6 miles south of Jebel Ain	...	...	2	...	...	...	

ROUTE X, FROM SUÂKIN TO TOKA.

Captain Gascoigne reports that this route runs along the coast to Toka, then up the Barka river, or along its banks to Zaga, near which place it joins the Keren-Kassala road.

**ROUTE FROM SUÂKIN TO KEREN *via* BARKA (OR BARAKA)
AND ANSEBA RIVERS.**

Travelled by Capt. Gascoigne, in December, 1881.

Capt. Gascoigne states that this route was never before attempted.

After leaving Toka, a small town in the centre of a great Dhura and Dokhn producing district, and a penal settlement for Suâkin, from which it is about 45 miles distant, the route followed the line of the Barka for six days, then turning more to the eastward up the Anseba, reached Keren after 17 days' hard marching. This route has nothing to recommend it, as water is scarce and bad, and there are no important towns on the way.

ROUTE, XI, FROM MASSUAH TO KEREN.
Travelled by Capt. Gascoigne, Royal Horse Guards, in 1861.

Stages.	Days.	Hours.	Miles.	
Amba ... Ain on Lebka river	1	7	18	A good road; no water. Across the level plain of Sháh or Sheéh. Running water at Ain. The river banks well wooded.
	2	10	25	
Anseba Valley	3	10	25	Up the valley of Lebka, between high mountains. A good road except for a short distance. Still ascending Lebka valley, road becoming rougher and steeper. Road becomes very rough and steep as it reaches the top of the pass, the source of the Lebka. Then, after crossing the razor-like back of the Bedjuk range, it descends abruptly into the Anseba valley.
	4	10	25	
	5	10	20	
Plateau Keren	6	7	18	Up the broad sandy bed of the Anseba, past Fort Techabab, a small fort on top of a steep sugar-loaf hill, some 200 to 400 feet high. Thence up a small tributary of the Anseba to the plateau of Keren.
	...	...	2	
			133	All travellers and merchandises follow this route. A little engineering could easily remove the chief difficulties of the pass, though it would always remain very steep near the summit.

ROUTE XII, FROM KEREN TO AMEDEH AND KASSALA.

By Capt. Gascoigne, Royal Horse Guards.

The caravan route from Keren to Amedeh first descends a very steep pass leading from the Keren plateau to the Hagas valley. In spring, 1881, this piece of road was thoroughly well engineered by Raschid Pasha, Governor of Keren.

From Hagas valley the road follows the river, more or less, until it reaches the Barka river at Kar Obel; it follows the course of that river to Zaga, and afterwards straight across the plain to Kassala.

There is plenty of water along this route, and though sandy in places, it is very good travelling for camels, mules, and horses.

From Kar Obel there is a track into the Dembela country. It runs up the Barka to its junction with the San Gulgul, follows the latter river to its source, and turns into the mountains to the Dembela town of Adoa Farnie. These mountains are only passable for men on foot, mules, or hill ponies.

The Dembela are a frontier Abyssinian tribe, held in great dread by the Egyptians and Arabs.

The Beni Amer Arabs, who inhabit most of the country between Keren and Kassala, are a peaceful shepherd tribe, owning enormous flocks and herds, on the milk and flesh of which they almost entirely subsist.

ROUTES TO DARFUR.*

Previous to 1874 there had only been three available routes to El-Fasher from Egypt or Nubia.

One from Siut, on the Nile, about 210 miles above Cairo. This route in its entire length is desert; the wells are sometimes ten days' journey apart.

A second from Debbbeh, latitude 18° N., on the Upper Nile, across the desert to El-Obeiyad, capital of Kordofan, and thence into Darfur.

A third from Khartûm, at the junction of the White and Blue Niles to Obeiyad, and thence as before.

A fourth route by Wadi Milk (or Malik), said to be very superior to any of the other three, existed, however, from near Old Dongola on the Upper Nile, almost in a straight line, right into Darfur.

* "Incidents on a Journey through Nubia to Darfur," Enscr.

The "Wadi Milk" signifies "Inalienable Valley;" it is so called because since the reign of Achmet Bokr, Sultan of Darfur (1682-1722), who extended his frontiers as far as the Nile, and beyond to the Atbara, the Sultans of Darfur claimed the sole right to it. This route, however, was said to be unsafe, owing to the predatory habits of the Arab tribes dwelling in different parts of its length.

In 1875 Mr. Ensor was charged with prospecting and surveying for a proposed line of railway from Abû Gusi up the Wadi Milk to El-Fasher, the capital of Darfur.

Abû Gusi is a considerable village 6 miles higher up the Nile than Old Dongola, and is on the line of the proposed Sûdan railway.

ROUTE XIII, FROM WADI HALFA TO OLD DONGOLA.

From Journey of Mr. Ensor, who Travelled this Route in November and December, 1875.

Stages.	Days.	Hours.	Miles.
Wadi Halfa	...		
From Cairo to first cataract by steamer. At Assuan the steamers were left, and the journey continued by a railway 9 miles in length, to the top of the first cataract; hence by steamer to Wadi Halfa. Wadi Halfa (Valley of Grass) is a village at the foot of the second or Great Cataract, on the right bank of the Nile, at a distance of about 1,000 miles from the Mediterranean. Disembarking here on the left bank, the journey was continued on camels. A complete change occurs in the Nile valley as soon as the second cataract is reached: below this the desert only comes down to the river in places; above, the river is closely bounded by the wilderness. Every 10 or 20 miles little patches of deposited mud are met with, every inch of which is cultivated with beans or lentils. If the area is larger dhura is grown. Sometimes two or three mud houses are to be seen under the shade of a few palms. The people live undisturbed, as scarcely any caravans move up and down near them, and only a very few boats pass when the Nile is at its highest. The inhabitants possess a few sheep, fowls, and donkeys. The surrounding waste is also devoid of vegetation; small tufts of dry yellow grass are occasionally seen. Huts for wearied travellers are occasionally met with. On reaching the neighbourhood of the Island of Say, green fields of dhura and a fringe of date palms make a pleasing change along the river's bank. There is a much prized salt mine not far off, which produces a good trade.			
Island of Say	...	...	...
Temple of Pshur Kobe	2½ ...	1 ...	... ...
Fakir Bender	...	...	30
Hannek, 3rd Cataract Hafir	1 ...	... ...	... ...

ROUTE TO DARFUR.

Two and a half days beyond Say is the temple of Pshur, one of the finest relics in Nubia. Kobe is about an hour's ride beyond the temple.

Here it was proposed to bridge the river to carry the proposed Sudan railway.

The route now leaves the bank and crosses 30 miles of desert, joining the Nile again at Fakir Bender. It is always necessary to travel this distance in one day, as water is only carried in sufficient quantity for drinking on the road.

A day's journey beyond Fakir Bender is Hannek, which gives its name to the third cataract, at the upper end of which stands Hafir, where the Nile again becomes navigable. Although those portions of the Nile at Wady Halfa and Hannek are called the second and third cataracts, yet all the intervening river is a long series of rapids, generally unnavigable except at extreme high Nile, and then only for small boats.

Above Hafir the Nile flows in a broad bed between banks of very rich land, universally cultivated, and which is one of the richest parts of the dominion of Egypt. Irrigation, by means of Sakiyehs, is carried on day and night.

New Dongola, called by the natives "Urdeh," is the first place on the banks of the Nile, after entering Nubia, which deserves the name of a town, and then only a very shabby one.

It contains a bazaar with about 20 or 30 shops. It is a garrison town, and the first telegraph station after Wadi Halfa. The banks of the river here are always lined with craft from the Blue and White Niles, laden with gum, senna, and ivory.

The boats go as far as Hafir, where they discharge, and their cargoes are carried over land to Wadi Halfa, in most cases, by the right bank, which is less inhospitable than the left.

A considerable traffic reaches the town from Zeghawa, the site of matron springs on the main line of desert trade between Siut and Darfur.

The Wady El Kab, a large oasis, extending more than 100 miles parallel to this part of the Nile, is at an average distance of 50 miles to the west, and forms a place of congregation for camels in the dry season.

Dongola contains about 16,000 inhabitants, but the population is constantly shifting, at least half of the people being always away. Arabs of all classes come here in large numbers to idle away their time.

After New Dongola is passed there is a marked improvement in the villages. Some of the houses have second stories, and are often built of concrete.

Sababeh, Sohri, and Bakri, being passed, the route leads through Handak, one of the best built towns of Nubia.

Old Dongola (Dongola Agûs), formerly capital of the province, is situated at the summit of a high rock on the right bank of the Nile; its houses are almost in ruins, and the streets choked with drifting sand. Scarcely one house in ten is occupied. There is no vegetation in the town, and every drop of water and bit of food has to be carried up steep sandy slopes from the cultivated ground below. The inhabitants are gradually deserting the place entirely.

The river is here 2,000 feet wide. The houses on the other side differ in no respect from those of Old Dongola, and stretch in almost unbroken line from Hafir to Ambukol. The inhabitants cultivate grain, fruit, and cotton, in large quantities. The trade in this cotton is carried on with the Arabs, who wear clothes made from it. There are many looms of primitive description in Old Dongola.

New Dongola is the last postal station on this route. The main line runs by Korosko, Abd Hamed, to Khartum, Kordofan, and Darfur.

New Dongola (Urdeh)

...

...

...

...

Wady El Kab

...

...

...

...

Handak

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...

...

Old Dongola

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...

...

ROUTE XIV, FROM OLD DONGOLA TO FASHER, IN DARFUR, *via* WADI-MILKH (MAHEK, MHALK, MASSUL OR MALIK).

Traversed in February and March, 1876, by Mr. Ensor.

Stages.	Days.	Hours.	Miles.	
Om Dhayr	1	5	..	Leaving Old Dongola in south south west direction. General character of ground, sand and stones; no vegetation; moving sand hills; no water; large quantities of fossil wood; much lava, and many volcanic fragments, although no craters of extinct volcanoes exist in this country.
Mahrtil (Massul)	2 3	.. ..	.. ..	Rolling sand and small stones with rocks here and there; no water. Mahrtil is on the border of Wadi Milkh (or Royal Valley), a large extinct river, from 10 to 30 miles wide, along the bed of which the route to Darfur lies. Its deepest part, for a width of 2 or 3 miles, contains a few thorn trees and shrubs. Its sides are formed by a more or less interrupted series of sandstone rocks, marked and water-worn into picturesque shapes. The outlet of this dried up valley is at Debbeth, 17 or 18 miles higher up the Nile than Old Dongola. The last 5 miles of its ancient course are choked and obliterated by rolling sand, so that at Debbeth no traces of it are visible.
				The quantity of rain which falls on its area is never enough to give a current in any part of its course. The water lies about in pools only in the rainy season; but wells sunk to a depth of 30 or 40 feet always find it.
				There are two wells at Mahrtil always abundantly supplied with water, which, however, is a little brackish. They are situated in a small plain surrounded on all sides by sand hills. There are no habitations near, as it is too near the latitude of the rainless district. The vegetation in the centre of the valley is very sparse, and the surrounding desert almost barren. Antelope are in great numbers.
	4	..	..	The route followed the Wadi Milkh. Trees in the valley became more numerous, and tufts of grass more plentiful.
	5	..	..	Two little wells of good water buried in the mountains about a mile to the east. The animals won't eat the grass in the Wadi Sotahi, though the vegetation is greener and denser than that in Wadi Milkh.
Sotahl... ..	6 7 8	.. .. .	.. .. .	No discernible track, as the Wadi is seldom used by caravans. A wall of sandstone rock on the right. Surrounding desert possesses few features of interest. Occasional ridges of granite, trap, or quartz. A few trees, dried up watercourses, and patches of grass. Wind in February from the north, and though the thermometer reached 90° the air was pure, dry, and exhilarating. Thermometer at night about 53° Fahr.

Ain Hamid ..	..	9	..	..	..	Spring of excellent water at the bottom of an artificial hole about 10 feet cube excavated in the base of the rock. Water excellent and abundant for the greater part of the year, but nearly runs dry for a few weeks preceding the commencement of the rainy season.
	..	10	..	..	..	Jebel Ain is a long and almost perpendicular wall of rock forming the western boundary of the Wadi Milk; on its top is an extensive plain. The boundary of the valley on the east side is less regular, but the general level below.
	..	11	..	..	..	Ain, i.e., 450 or 500 feet above the valley below.
	..	12	..	..	..	Jebel Ain comes to an end shortly after passing the spring; the valley becomes wider and slopes more unevenly down from the high ground on each side. There are numerous tributary valleys, some 20 or 30 miles long, and a mile broad.
	..	13	..	..	..	Trees and shrubs become more numerous, and many herds of antelope.
	..	14	..	..	..	Storm or sand spouts, called by the natives "Zobahah," are very frequent and intense in this desert.
Bajariyeh ..	..	15	..	..	..	There are about 150 wells here, all in the centre of the valley, varying from 10 to 30 feet in depth. The shallow wells only contain water during the rains. A short distance below a ridge of quartz crosses the valley.
	..	16	..	..	..	Leaving Bajariyeh the boundary of the valley becomes indefinite, and rocks are scattered about in all directions. To the right a high mountain region. No vegetation to be seen on the highland stretching away to the west, which is too rough even for camels.
	..	17	..	..	..	500 wells, to which thousands of the neighbouring tribes come every day for water. It is said 10,000 camels come daily. The neighbouring tribes of Arabs are chiefly Homr, Maganin, and Beni-Hamran.
Om-Bahdr ..	..	18	..	..	..	The Wadi Milk may be described as beginning in the plain opposite Om-Bahdr. Three valleys here unite to form it. The "Wadi Amis," from the south; the "Wadi Zankor," from the south-west; and the "Wadi Arredib," from the west. Two ranges of rocks, the Zankor on the east, and the Zaynt on the west, divide the central valley from the other two, which are the less important. The route followed skirts the northern slope of the Zaynt.
	..	19	..	..	..	On the left a range of rocks, varying from 5 to 10 miles in width, from 100 to 400 feet in height, and broken up into fantastic shapes.
	..	20	..	..	..	
	..	21	..	..	..	ROUTE TO DARFUR.
	..	22	..	..	..	Seven lofty summits, each about 1,000 feet high, and closely resembling each other in appearance, are an imposing feature in the landscape, and form the Zaynt range, which joins the Serrug range, a continuation of the Zankor, at a distance of 45 miles from Om-Bahdr. At the top of one of these summits, "Zaynt Ateshan," is a natural reservoir. It fills during the rains, the water lasting for some after; it is frequently resorted to by cattle and camels from the Wadi Zankor, whence it is easily approachable.
	..		..	..	..	On the right is a rough expanse of country intersected by low ridges of granite and quartz, and broken up by many khors, which lead nowhere. The ground is thickly covered with mimosa, which, together with the rough ground, makes journeying slow.

Stages.	Days.	Hours.	Miles.	
Karnak	23	...	...	Route joins camel track from Foga to Karnak. This track is well trodden, and lies through that part of the country where vegetation is densest.
...	24	...	...	Village with a settled population. One well, situated in a plain surrounded by hills of various heights; those on the west are the highest, and form the commencement of an extensive plateau extending west and north.
...				The village is built on the northern slopes of the plain, and consists of "Tukuls" or beehive-shaped huts. These are about 250 in number. The people are of the Sayadiyah race of Arabs, and own no camels. The ground round the village is planted with dokhn and a few patches of cotton.
Buti	25	3	...	The well is the widest and deepest in Darfur. With the exception of 12 feet of upper sandy soil, it is sunk through solid sandstone. It is from 9 to 10 feet wide, and the depth to the surface of the water is 280 feet. Food source.
...				Road lies to the west over a spur of the mountains, up one valley and down another, the Wadi-es-Sayal, at the bottom of which lies Buti, with a lumpy plain to the south, and rock covered with thorns to the north.
Brûsh	26	...	...	It has one well, cut through the rock to a depth of 150 feet. There are about 320 inhabitants, some 250 sheep, and 150 cows.
...				Dokhn, dhûra, and cotton, are grown, and there are two looms in the village.
...				Leaving Buti for the west, villages lie at about a day's journey apart. Brûsh lies a little off the track, among scattered rocks to the right. It is a large village, and has three wells.
...				The population is about 380, and there are some 1,500 head of cattle, sheep, donkeys, and ostriches. A market is held twice a week.
On-es-Shay-es-Shat On-es-Seraydeh ...	27 27	... ...	... ...	Two villages are passed, about the same size as Brûsh. After reaching On-es-Seraydeh, the camel track turns north, over the rocks, towards Abiat, the only place in the neighbourhood where the wells are sufficiently numerous to afford facilities for watering large caravans.
Welled Ghindi Wady Abiat ...	27 28	... ...	... ...	The route from Welled Ghindi descends from the heights into the Wadi Abiat, and, after four hours' travelling due north along its bed, Abiat is reached at the top of the valley.
Abiat	28	4	...	Abiat (white) is a large village or town, with a population of about 1,350, and large herds of cattle, sheep, and goats. There are also many donkeys and ostriches.
...				The wells are half a mile distant among the mountains.
Derrit Homr ...	29	...	...	The track towards Ergûd is bounded by thick bush.
...	30	...	...	Passing Derrit Homr, a considerable mountain with a ruined village at its foot, which is deserted owing to the wells having dried up, Ergûd is reached.
Ergûd	30	...	...	Ergûd is the capital of a small province, containing 1,200 to 1,500 inhabitants.
...	31	...	...	After two days travelling across a range of stony hills, the "Sarphenat," El-Fasher is reached.
El-Fasher	32	...	...	El-Fasher or Tendely stands on the western bank of the Wadi-Tendely, in an angle formed by the junction of the latter with the Wadi El-Kho. The town is described at page 116.

SUMMARY OF ROUTE.

The time in which the camels had marched from Old Dongola to El-Fasher was 232 hours and 18 minutes, and the distance travelled by the route described was 592 miles. The average rate per day, including stoppages, was $12\frac{1}{2}$ miles. The average rate for marching days, $18\frac{1}{2}$ miles.

List of Wells on the Route.

Place.	Lat. N.	Long. E.	Number of miles.	Time occupied.	Average rate per hour.	Height above sea level.
				h. m.		feet.
Old Dongola	18° 13' 18"	30° 41' 35"	...	...	...	790
Mahtûl ...	17 32 0	30 41 0	47	17 13	2·73	899
Sotahl ...	17 0 0	30 37 0	44	16 50	2·61	1,030
Ain Hamed	16 31 0	29 34 0	80	31 20	2·55	1,188
Bajariyeh ...	15 20 0	28 48 0	104	39 20	2·64	1,572
Om Badr ...	14 14 0	28 4 0	92	35 0	2·63	1,949
Karnak ...	13 30 0	27 20 0	75	32 55	2·28	1,926
Bûtah ...	13 28 0	27 15 0	7	3 30	2·00	1,801
Brûsh ...	13 35 0	27 2 0	18	7 30	2·33	...
Abiat ...	13 47 0	26 32 0	37	15 15	2·43	2,047
Ergûd ...	13 28 0	26 0 0	46	18 25	2·66	2,260
El-Fasher ...	13 36 45	26 22 37	43	15 0	2·87	2,418

The water in the wells of Mahtûl, Karnak, Buti, Ergud, contain from 2·45 to 73 grains of common salt per gallon.

The water in the other wells is soft and saltless, with the exception of the wells at Sotahl and Bajariyeh; none of those mentioned were, however, absolutely dry. Ain Ahmed has never been known to be dry, though very low just before the rain. Om-Badr for several months after the rain, supplies water enough and to spare for 10,000 camels that daily drink; but towards the end of the dry season only yields sufficient for 1,000.

ROUTE TO DARFUR.

Geology along Route.

On both sides of the Wadi Milk, as far as the end of Jebel Ain, the rocks consist of layers of sandstone alternating rarely with layers of limestone, and intersected by numerous volcanic dykes of trap. The trap is much broken up by the action of water in bygone times. After passing Jebel Ain, a harder class of sandstone replaces the layer of soft sandstone and limestone, and granite takes the place of trap rock.

M

Temperature.

On few occasions during the latter part of the journey the thermometer rose above 100° Fahr., and the heat was never inconvenient. At night the minimum temperature averaged 60°.

In February the average of the maxima was 87°; the nights were cool, and plenty of blankets necessary.

During December and January, on the banks of the Nile, the daily maximum was only 82°, and 45° to 43° the minimum.

**ROUTE FROM OM-BADR TO OLD DONGOLA *vid* KAJA, AND
TO THE EAST OF WADI MILKH.***

1876.				Hours' march.		
				h.	m.	
Monday, June 19	Left Om-Badr	...	...	6	0	116 miles.
" 20.	...	...	...	8	0	
" 21.	Did not move camp	...	...	0	0	
" 22.	...	...	...	6	0	
" 23.	Heard Bajariyeh wells were dry	...	...	5	0	
" 24.	Towards Kaja	...	...	10	0	120 miles.
" 25.	Reached Kaja	...	...	7	42	
" 26 to 31.	Camped at Kajah	...	...	0	0	
July 1.	...	...	...	6	21	
" 2.	...	...	...	8	15	
" 3.	...	...	...	7	45	124 miles.
" 4.	...	...	...	8	0	
" 5.	...	...	...	8	30	
" 6.	Reached Sahfy (Safiyeh)	...	...	5	0	
" 7.	...	...	...	8	0	
" 8.	...	...	...	8	5	98 miles.
" 9.	Reached Ed-Dubbah	...	...	2	25	
" 10 and 11.	Camped at Ed-Dubbah two days	...	...	0	0	
" 12.	...	...	...	8	30	
" 13.	...	...	...	8	33	
" 14.	...	...	...	8	0	
" 15.	Sotahl	...	...	6	0	
" 16.	...	...	...	8	0	
" 17.	...	...	...	8	0	
" 18.	...	...	...	9	0	
" 19.	Old Dongola	...	...	9	0	

* "Incidents on a Journey through Nubia and Darfur," Ensor. Appendix.

ROUTE XV, FROM RUBAGA (CAPITAL OF M'TESÉ, KING OF UGANDA) TO FOWEIRA, FATIKO, DUFLI, LADO,
DYUR GHATTAS, DEM SULEIMAN, DARRA.*

From Journey by F. Felkin, in May, 1879.

Stages.	Days.	Hours.	Miles.
Rubaga	1	...	8
Kahdra	5	...	...
Khor Ergugu	...	...	...
River Kafur	...	...	28
M'ruli	...	...	...
Kodj	1	...	...
Foweira	...	2½	...

Reached small hut. Baggage carried by Uganda porters, who took excellent care of it. For 30 miles the road passes over low ranges of hills covered with banana groves, is at first very stony, but soon turns to clay. In the valleys are swamps, some very deep. The drainage is to the north-west. Greater difficulty in crossing swamps at this time of year. Each night the halt was made at villages, where the people were friendly.

For 10 miles immediately preceding Kahdra the road lies through splendid park-like land with no swamps.

Up to this the country from Rubaga is inhabited; beyond, towards M'ruli, it is jungle. Kahdra, the headquarters of Maraku, is a pleasant town.

From Kahdra the ground appears like a large park. Here is the southern limit of the *Borassus palm*. A good many elephants about.

A depression 14 miles long is passed through, and the Khor Ergugu reached. In February this was 200 yards wide and about knee deep; in May about three-quarters of a mile wide and about 5 feet deep at the crossing place.

8 miles of swamp follow, through which marching is difficult.

Camped 28 miles from Kahdra.

Road thence passes through jungle, and reaches the River Kafur. At this time of year (June) the whole distance from the Kafur to M'ruli is a vast swamp.

From Rubaga to M'ruli is about 200 miles, and was accomplished in eleven days.

In June the whole country round M'ruli was a swamp.

From M'ruli the journey was continued in a native canoe down the river.

Kodj, an Egyptian fort, situated on the banks of the river and surrounded by forest. The river is about 800 yards wide, and flows between banks covered with rich vegetation.

Two and a half hours by water to Foweira. This place is unhealthy. Lions and leopards abound. The people near on the east of the Victoria Nile belong to the Lango race. There are not many cattle, but they are frequently brought from the Lango villages for sale.

From here towards Fatiko the road at first is very broken, rough, and stony, and passes through forest and thick grass jungle. It is also much cut up by elephant and buffalo tracks.

* "Uganda and the Egyptian Sûdan." By Wilson and Felkin.

Stages.	Days.	Hours.	Miles.	
Ras el-Fil ...	1	...	...	A mound of earth with a few large boulders. From Khor el-Suligat to Khor el-Hamir the road is not quite so bad. From Khor el-Hamir the ground rises 200 feet, from the top of which there is a splendid view towards the Nile. Below an undulating country, sloping towards the river, and covered with vast fields of dhura and sesame, beyond which could be seen the mountains of Vuvira and Felève. A difficult road leads to a Shuli village. The next day's march led through well-cultivated fields and past many villages. The halt was made at a small village. The next day the road led through a fine country across two good streams to Fatiko. The fort here is placed at the foot of a large mass of rocks, which forms a natural defence on one side, the other being protected by a deep trench. The march from Foweira to Fatiko occupied six days, or 36 hours. Climate at Fatiko good; the nights cold and bracing. Near the fort there is a large native settlement of Shulis. Fatiko is the granary of the province. The surrounding country is very fertile. Honey is very plentiful. The height of the great rock in the neighbourhood is about 2,400 feet above the sea. Leaving Fatiko, the first eight hours' march is through open jungle, intersected by long ridges of bare igneous rock, with here and there some fine forest trees. The road was good, but many rapid streams much swollen by the rain had to be crossed. A rapid stream, sometimes impassable for days, but rises and falls rapidly. From here the march was through a grass prairie, full of elephants, till it reached Faguna, a Madi village. From here to Khor Jafir the road is very good. This stream is rapid but not deep. Across the river to Dufli. The huts here had all been rebuilt, and everything was in good order.
Khor Unyama, Faguna or Fagrinia	1	...	...	
Khor Jafir	...	...	...	
Dufli ...	...	...	...	From Dufli, after passing over a gradually ascending grass-covered plain, the mountains are reached, and the road goes up a steep ascent some 400 feet high. For 12 miles the march over the mountains was difficult. Thence the road lay under the mountains for many miles, the country being open forest with tall grass. Numerous ravines and streams were crossed. The Nile becomes contracted here to 400 or 500 yards in breadth, and rushes like a mill race.
Total ...	2½	21	...	On the eastern bank were lofty hills covered with native villages. On the western bank low hills separate the mountain range from the valley of the Nile, and between them and the river there is a narrow strip of level ground covered with turf, and dotted over with palm trees. At times the hills come down to the water's edge.

Small Laboreh	...	...	...	...	...
Laboreh Station	...	2	...	...	...
Mugi Station	...	...	...	...	...
Kerrie	...	...	...	...	...
Bedden	...	...	3	30	...
Regaf	...	...	4	...	...
Gondokoro	...	...	...	...	...
Lado	...	...	4½	...	...

A little station at the junction of Khor Aio with the Nile. A pleasant spot surrounded by woods. There is a boat building yard here, and it is the headquarters for the carpenters of the province.

The height above the sea is 1,600 feet; that of the highest point of the road from Dufli is 1,840 feet.

From Small Laboreh the route crossed Khor Aio in a ferry boat, and passing through a park-like country, reached Laboreh Station. This is a well-fortified post on top of a hill.

Between Laboreh and Mugi numerous streams impeded the march. Near this post are the Yarborah rapids.

In the march hence to Kerrie 14 streams are crossed, of which Khor Miladian, about half way, is the largest, and breast high in July.

Kerrie is a strong fort on a mound at the bend of the river, which protects it on two sides, the other two being fortified by stone walls. There is no cover for 300 or 400 yards from the post.

The huts for travellers are comfortable, and are built about a mile north of the station on the river's bank.

From Kerrie to Bedden by boat. The river is navigable, and a small steamer is stationed off Bedden. There is a strong current. The river is about 400 yards wide, and the banks are high and covered with timber.

Jebel-el-Kelb, on the right, is the only mountain of any size until one comes within sight of the Bedden hills, which are five rounded peaks, forming a good landmark.

Bedden is an island with rapids on each side; but after they are passed the river is navigable to Khartum. There is an iron rope ferry, made by Gordon Pasha, and it would be hopeless to try and get a boat across without it.

Between Bedden and Regaf the character of the river banks rapidly changes, and instead of hills forming a valley we have on either side plains extending for miles covered with park land and large trees. At intervals large fields of dhura surround the Bari villages. Large herds of antelopes and elephants are seen on the right bank.

Approaching Regaf, Jebel Bolinian appears on the right, and Mount Regaf on the left. The river is about 560 yards wide.

Mount Regaf is about a mile from the station. It is 375 feet above the plain, and 2,006 feet above the sea level. Many shocks of earthquake are felt here.

Gondokoro is about half way between Regaf and Lado, on the east side of the river. The Nile is here divided by a large island into two channels. The station is situated on a high bank near the river.

A sail of 4½ hours from Gondokoro to Lado.

Lado is a well built town described at page 82.

In case the river is impassable from floating vegetation, there are two ways of getting from Lado to Khartum.

(1.) By steamer to Shambch, and thence march via Rohl to Meshera on the Bahr Ghazal; or

(2.) Go overland from Lado via Madi and Rohl. At this time of year (September) country between Shambch and Rohl is one great swamp.

The overland journey is as follows :—

LADO TO DYUR GHATTAS.

Stages.	Days.	Hours.	Miles.	
Waniyetta	1	...	12	For the first 12 miles the route lies in a southerly direction as far as the village called Waniyetta, over sandy ground covered with acacia trees. Jebel Lado forms a good landmark. Khor Luri is crossed about a mile before reaching Waniyetta. It is a stream about 75 yards broad, and not very deep. After passing a small village called Kurie, the nature of the ground undergoes a complete change, becoming a rich alluvial soil, covered with grass and groups of stately trees. During the next march the character of the ground is sandy, with a few rocks, and here and there a solitary palm. High grass, thorns, and acacias make marching difficult. There are a few small patches of cultivated land and some deserted villages. A small neat village in the middle of large dhura and sesame fields. Leopards very bold, and a good many hyenas about. There is a good deal of swamp before reaching Zanga, and several small streams are crossed, El-Gelee being the most important. Zanga, a Government station, is only a small collection of huts surrounded by a fence. Six hours to the south-east there is a hot spring, much prized by the natives for its medicinal properties. It is called Busi, and lies at the foot of Mount Kuga. On the next day's march no signs of life. The ground sandy, and contains a good deal of ironstone. Six small streams are crossed. Halt made at a small village surrounded by large fields of dhura. A fine march over the Lorola mountain to Kederu. Fifteen mountain streams are crossed. The hills are well wooded; the rocks chiefly of grey granite. The highest point in the pass is 2,400 feet above sea level, the summits of the hills being 600 or 700 feet higher. Bamboos grow on the borders of the stream. Kederu is a small place among the hills. From Kederu to the River Rodi the road is very good. Eight streams of considerable size are crossed on the way. The ground is a mass of ironstone, with here and there boulders of granite. The River Rodi is 200 yards broad and over 10 feet deep, the current about a knot and a half. It flows into the Nile near Shambah, and rises to the west of the hills at Dufi. It is navigable in a southerly direction for many days. The river is crossed in a ferry boat. A large village on the bank. The huts are built on piles. This used to be the chief station for the Madi district, whence expeditions for ivory and slaves used to be sent into
Yambara	1	...	...	
Zanga	1	...	...	
Kederu	2	...	...	
River Rodi	...	...	...	
Madi	...	...	...	

After leaving Madi, about 3 miles of cultivated land is passed through; then difficult marching through swamps and long grass.

After passing through a bad swamp, called by the natives Nimine-Kassie, the rest of the march to Takkeh was better, as the jungle was not so thick. Quantities of ironstone, and also dhura and cotton plantations.

The huts are of basket work, and the village surrounded by a high fence. Honey is plentiful.

From Takkeh an open jungle of small trees and high grass. Two considerable streams are crossed.

The next march was through a thorn jungle with patches of grass and a few large trees. The soil ironstone, with masses of porphyry here and there.

The ground rolling.

A village, where in former times all the ivory taken to Khartum was collected.

Agar, Lynack, or Dufala, is an important town. It is surrounded by a small stockade and a deep moat. A few rusty cannon are mounted on its ramparts. The dwellings are clusters of huts built on raised platforms. The town is crowded and filthy. There are large villages beyond the Seriba.

A large river flows past, whose channel is about 50 yards wide, and during the wet season about 15 feet deep. The natives say that it flows through an immense swamp, and joins the Nile north of Shambeli.

Crossed the Ferial in boats. Then followed an hour's march through water 5 feet deep. The rest of the way to Rohl through well cultivated land. Large trees and small villages constantly in sight. The huts all built on platforms.

Rohl is a large place, the Arab population being about 3,000, and about 30,000 natives in the neighbouring villages. The town is described at page 90.

From Rohl the road leads through parkland and two swamps, one of which is 3 feet deep. Passing through another large marsh. Arrived at Mukta, a small station occupied by a few irregular soldiers. Between Rohl and Dyur Ghattas the water is very bad, with a disagreeable smell and taste, and acts as a briek aperient.

After two hours the road led through high grass jungle with small trees. The soil is alluvial, with some ironstone. Then comes a large flat plain, through which the river Rohl flows.

In October its banks were about 10 feet above the water level. The breadth about 40 yards, and the depth about 16 feet, with a current of 1½ knots per hour. The river was crossed on a raft made of bundles of ambatch.

Gok was then reached. This is the first station in Bongo Land.

Leaving Gok a swamp is reached, varying from 2 to 5 feet in depth; it was full of fish, and had a slight current to the east. A small river, Khor Niakok, flows through it. Two and a half hours were occupied in wading through the marsh. Arrived at Shwelle.

A short march thence to Tondi, an Egyptian station.

Takkeh	...	...	2	...	...
Kerima	...	...	1	...	20
Mahatta el-Sin	...	...	...	...	...
Agar	...	...	...	...	5
The River Ferial or Well	...	...	...	...	...
Rohl	...	...	...	...	...
Mukta Station	...	...	...	10½	...
Gok Station	...	...	...	6	...
Shwelle or Boit	...	...	...	...	...
Tondi Station	...	...	...	...	...

Stages.	Days.	Hours.	Miles.	
River Tondi	...	...	...	From this station the route led across the river Tondi, which, at the time, (October), had overflowed its banks. The river was 60 yards broad and 18 feet deep, with a current of 2½ knots per hour. It was crossed by a canoe. A good road thence leads to Dyur Ghattas through jungle. The ground is sandy. Enormous dhura fields surround Dyur Ghattas, and numerous clumps of fine trees. Dyur Ghattas is comprised of huts, spread over an extent of 2 square miles, each standing in its own enclosure, and surrounded by gardens. The water is not good. Alum has to be used to clear it for drinking. Dyur Ghattas was the seat of the Egyptian Government in the Bhar el-Ghazal provinces, up to 1879. At Dyur Ghattas Mr. Felkin was obliged to alter his plans from the original one of proceeding to Meshera, and thence by boat to Khartum. It was reported that the river was blocked by "sudd." See page 125. The route followed was accordingly in the direction of Dem Suleiman. Leaving Dyur Ghattas the road is excellent, as are most of those in the Bahr el-Ghazal Province, and in Darfur and Kordofan.
Khor Nikam or Mohmul	...	2	...	The boundary between the Bongo and Dyur tribe.
Drarr Station	...	1	...	From Drarr the Khor Paguan is crossed; a wide knee-deep swamp with a slight current.
River Dyur	...	7	...	All along the road are large quantities of ironstone and huge lulu trees. The river (November) was 200 yards broad and very deep. The right bank 30 feet above the water level, and the left 15. During the kârif the river overflows the left bank for about 2 miles. The river is crossed in a ferry boat. There is a fort here made by Gessi Pasha. It is a strong earthen redoubt; but was hurriedly constructed. Formerly an important place surrounded by large gardens and banana groves. Reached the River Wow, which joins the Dyur some 30 miles lower down. Between the station and the river there is a plateau, 150 or 200 feet higher than the level of either river or station: on this plateau is a well of excellent water. The Wow is a swift river, full of crocodiles. At the time (November) the current was 2 knots, the breadth 80 yards, and the banks 20 feet above the water. It does not overflow its banks, and is navigable for a long distance into the interior.
Kurshûk Ali Station Waou or Wow	...	1 2	...	Gessi Pasha established a boat building yard here, in which boats for transporting ivory to Meshera were made. There is much plumbago found in the river bed. The river was crossed in a ferry boat.
Wow Station...	...	...	...	Wow station is substantially built. From this the road lies through jungle, bamboos being plentiful. There are two plateaus to cross, about 150 feet high, of which the ascents and descents are very steep.

Pizelia ..	..	..	..	..	..	..	From Pizelia to Dem Idris there are two roads, one <i>via</i> Dembo, a large trading station, and another, more direct, through a dense forest. The latter cannot be used in the rainy season on account of the wild animals which infest it. It is the one followed in this route.
River Ghetti...	..	..	1	..	..	..	There is no cultivated ground up to Dem Idris. The road through the forest is very winding, and passes through dense underwood in many parts.
Ji or Pango river ..	..	..	..	..	..	..	The river was crossed in a boat.
Khor Juuvu... ..	..	..	..	..	..	..	This is a beautiful stream, full of rocks and with a rapid current.
							This was passed by a tree bridge. The country is slightly rolling ground, gradually rising up towards Dem Idris.
							The next march of 37 miles brings the travellers to Dem Idris. Three streams were crossed.
Dem Idris ..	..	..	..	..	..	..	An immense amount of water flows through this country, during the rains, from a watershed far to the south.
							This place had been very strongly fortified, but is now little better than a heap of ruins.
							Leaving Dem Idris there is a 14 hours' march to Dem Suleiman, during which 16 streams and one river (Kuru) are crossed.
Khor Raman... ..	..	..	..	..	..	..	Up to the Khor Raman the road still leads through dense forest. The bed of this stream is rocky, and it runs in a defile about 100 feet deep. The water was only 3 feet deep. It was crossed by a tree bridge. The water is excellent in quality.
							After crossing Khor Raman there is a steep ascent, on the top of which is an old fort.
Dem Suleiman ..	..	..	..	..	..	..	Emerging from the wood there is a treeless plain, and Dem Suleiman is seen in the distance.
							Dem Suleiman is now the seat of government for the Bahr el-Ghazal province, and is garrisoned by 300 regular troops, and 500 Besingers or irregulars.
							The defences are an oblong stockade, made of trunks of trees and logs, 15 to 20 feet high.
							At each corner there are well-built pladforus for guns to sweep all the approaches. Rocket tubes are also placed near the gates.
							The governor's house and large magazines are built of burnt brick; and the streets are wide and airy.
							The neighbourhood is very fertile. Vegetables of all kinds and other supplies can be obtained in large quantities. A small amount of gold is found in the neighbourhood.
River Biri ..	..	..	..	1	..	..	After an hour's march through cultivated land the route enters a splendid forest.
							This river was (December) 45 yards broad, 15 feet deep, and had a current of 14 knots. The banks were 20 feet above the water level, which, however, rises to their tops in the wet season. The river is crossed in a ferry.
Jebel Deleb ..	..	..	..	..	2	..	A curious metamorphic rock, about 20 feet above the plain, and is surrounded by Deleb palms.
					2	..	Halted.

DEM SULEIMAN TO DARRA.

Stages.	Days.	Hours.	Miles.																																														
Kosho ...	...	...	...	Cultivated land and many villages were passed through up to Kosho. After leaving Kosho an extensive forest is entered.																																													
Sabu river ...	...	...	...	The Sabu was 80 yards broad (December), and the banks 40 feet above the water. The current is very swift, and the stream impassable for three months during the year. Guinea-fowl are numerous.																																													
Zaka ...	...	...	...	The ground is very irregular, with masses of ironstone. Rolling ground follows, rising gradually, and, for the most part, covered with dense forest. A good deal of water still on the road, and dry swamp.																																													
Lugu river ...	...	...	...	Situated in a small plain, surrounded by well wooded hills. Some thick forests with very large timber is passed through. The ground is rolling and drained to the north-east by deep gullies. The Lugu river has a strong current.																																													
Kagola ...	...	...	...	A neat village.																																													
Lifi ...	...	...	...	A range of hills 10 miles due west, called Nambasa. Mount Lifi on the right, a cone-shaped rock 180 feet high.																																													
Raja river ...	...	...	...	Lifi is a large fortified place, garrisoned by 25 regular and 150 irregular troops. The huts are well built and have windows. The surrounding population is very dense.																																													
Boru river ...	...	...	...	The River Raja is one-third of a mile from the station. At this season (December) the stream was only 20 yards wide, but its banks are 200 yards apart, and it overflows them during the rains. The bed of the river is of fine white sand, and from this point the soil begins to be of a sandy nature.																																													
Mount Gondu	...	...	...	The road from Lifi lies through a thick forest of small trees. The River Boru was 80 yards broad, but only knee-deep. A steep hill about 300 feet high, with a village on top, which the Arabs were always unsuccessful in attacking.																																													
				Mount Delguna is north north-east from Gondu, about 15 miles distant. The road to Shakka leads by the mountain. The following are the stations on it:—																																													
				<table> <tr> <td>Gondu to Delguna</td><td>...</td><td>...</td><td>...</td><td>6 hours.</td></tr> <tr> <td>Delguna to Bir Dudu</td><td>...</td><td>...</td><td>...</td><td>18 "</td></tr> <tr> <td>Bir Dudu to Bahr el-Arab</td><td>...</td><td>...</td><td>...</td><td>4 "</td></tr> <tr> <td>Bahr el-Arab at Atiyat...</td><td>...</td><td>...</td><td>...</td><td>5 "</td></tr> <tr> <td>Atiyat to Kubu</td><td>...</td><td>...</td><td>...</td><td>7 "</td></tr> <tr> <td>Kubu to Doleb Nyobo</td><td>...</td><td>...</td><td>...</td><td>8 "</td></tr> <tr> <td>Doleb Nyobo to Fokiat...</td><td>...</td><td>...</td><td>...</td><td>7 "</td></tr> <tr> <td>Fokiat to Shakka</td><td>...</td><td>...</td><td>...</td><td>6 "</td></tr> <tr> <td></td><td></td><td></td><td></td><td>61 "</td></tr> </table>	Gondu to Delguna	...	...	...	6 hours.	Delguna to Bir Dudu	...	...	...	18 "	Bir Dudu to Bahr el-Arab	...	...	...	4 "	Bahr el-Arab at Atiyat...	...	...	...	5 "	Atiyat to Kubu	...	...	...	7 "	Kubu to Doleb Nyobo	...	...	...	8 "	Doleb Nyobo to Fokiat...	...	...	...	7 "	Fokiat to Shakka	...	...	...	6 "					61 "
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Fokiat to Shakka	...	...	...	6 "																																													
				61 "																																													

River Gama ...	...	...	...	...	...	...	From Gondu the road to Darra crosses the Gama. Water could only be obtained by digging in the sandy bed of the river.
Khor Safia ...	...	...	...	...	...	...	Hence a march of $7\frac{1}{2}$ hours to Foroga. The road all forest with gigantic trees. dry. Water had to be obtained by digging in its bed. The tsetse fly (<i>Glossina morsitans</i>) was found here, which accounts for the total absence of cattle between Foroga and the Bahr el-Arab.
Foroga Station	...	...	...	...	...	...	Foroga is a small Egyptian station.
Timbasi ...	...	...	...	...	...	...	Timbasi is a small village. Jebels, Bickeri, Zandi, and Foroga, are seen on the right. They rise to a height of 600 or 700 feet above the plain, and are thickly covered with forest.
Sarefyeh ...	...	...	...	...	...	...	A small village. Thence through a forest full of bamboos and acacias to a mountain pass 200 feet high. The ground slopes to the north-east, and there are many dried up swamps; game abounds; water very scarce at this time of year.
Bahad ee-Zurgur ...	...	...	...	...	...	...	To the north-east nothing but an unbroken sea of forest; south and south-west, lines of mountains in the distance.
El-Brak ...	...	...	...	...	...	...	Two hours further on a basin 40 or 50 feet deep with good water. A small stream. Before reaching this the ground had the appearance of having been one vast swamp during the karif. The tracks of elephants make marching difficult.
Atraha	...	...	...	...	...	...	There is an immense pool of muddy water at Atraha.
Bahr el-Arab...	...	...	...	...	...	...	The channel was 120 yards broad, but very little water in it (December), and that only 4 feet deep.
							The banks were only 15 feet above water level. No tsetse fly north of the river. Elephants and large game never cross it now. Ostriches abound.
							Plenty of fine trees for shade. Soon after leaving the river the character of the vegetation changes completely; nothing but scattered acacias, palms, and thorn bushes to be seen.
							The ground was an uneven surface of dried up swamp. Wells rare. The people use the juice of the water-melon for cooking and washing, and the cattle and donkeys get little else to drink.
Kalaka station	...	...	...	...	...	...	Passing over sandy soil and through some small villages where water and milk can be obtained, Kalaka is reached. This is an Egyptian station.
El-Mugurana	...	...	...	...	...	...	Thence to El Mugurana.
El-Fadri ...	...	...	...	...	...	...	El-Fadri is the residence of the Sultan, who is chief of the greater part of the Risegat Arabs.
Agareb	...	...	...	...	...	...	Several villages having been passed through, at which there were great numbers of savage dogs.
							The nights now (December 27) were very cold, only 46° F.

Stages.	Days.	Hours.	Miles.	
Bir Allay ...	...	...	...	After leaving Bir Allay, the route ascends some 250 feet in a series of ascents, each 30 feet high, and very steep. The water all along very bad and muddy, and with a strong mineral taste. The khors all dry.
Fasko. Serial	...	...	...	Saril is a well built place. The Arab Sheikh here has large herds of camels and oxen, and a good number of horses. This is the southern limit of the Baobab tree.
Darra ...	...	...	...	Several deep khors are passed, one called Geshera being very difficult. A sandy plain without vegetation is traversed, and Darra entered.

ROUTE XVI, DARRA TO EL-OBEIYAD.*

By Felkin, in January, 1880.

Stages.	Days.	Hours.	Miles.	
Darra.				Encamped at village.
Village of Abbas Bey	1	...	...	A short hot march. Darra hills in sight all day, the ground being sandy and covered with low acacia trees. Numbers of antelopes and guinea-fowl. Small market at Bir-Inges.
Bir-Inges ...	1	...	...	The water is very good. The wells are under a clump of trees, and 60 feet deep, and the water is drawn up by leather buckets.
Om Khobicha	...	...	15	Om Khobicha is a large village where good quarters can be obtained.
Towasha ...	3	...	80	The country to Towasha is uneven, and the path wound in and out among hills. The water here is good, and there are in the neighbourhood large herds of oxen, goats, and sheep. There is a small garrison.
Om Shangah...	4	...	...	The direct road from Shaikha to the north passes through Towasha. The ground travelled over is sandy and rolling in character. There is only one small hill about half way. Thorn bushes and adansonias (baobab) are plentiful. Without the water stored in these latter trees the people could not exist. The labour of filling them is very great. A platform is erected at the top of the tree, and the water, which has to be fetched from great distances, is hoisted up in buckets and emptied into the hollow trunk. When full, the top is sealed up until the water is required for use.

The pulp surrounding the seeds of the fruit of the baobab is very refreshing on the march. Om Shangah is a considerable town. The houses and stores are well built of sun-dried and burnt bricks, and some are really fine buildings. The wells are situated about half a mile from the town, and are 120 feet deep, and the water is excellent.

Two posts for Europe pass weekly through the place, one from Fasher and one from Darra. Om Shangah being situated at the junction of two roads, is a town of great importance. About 20 merchants have stores there, and it is the starting place for caravans for long distances.

There is a large market held twice a week.

Large numbers of adansonias are met with, but no water. The chief drink is obtained from water-melons, immense fields of which surround the various villages.

Woad Derisa is passed. From this village several small ranges of hills are seen, Bahorea, M'rare, and Abd Hasab being the most prominent.

The route continued through undulating land, in some places covered with dokhn. The road from Woad Derisa was infested by lions, and Shallota is strongly hedged to protect the people and camels from their attacks. There is a telegraph station at Shallota.

From Inneh can be seen Jebel Abd Sendin, so called from its supposed resemblance to a tooth.

				10
			...	13
			...	...
Woad Derisa...	...	...	...	...
Shallota	...	...	...	...
Om Gamara ...	...	...	...	...
Inneh or Finneh	...	...	...	...
Obelyad	...	...	...	...

* "Uganda and the Egyptian Sudan," Wilson and Felkin.

EL-OBEIYAD BARA, KHARTUM.*

By Felkin, February, 1880.

Stages.	Days.	Hours.	Miles.	
Obeiyad	1	...	...	Near the village of M'sûr is seen the last of the baobab trees, which do not grow further north.
M'sûr	...	...	...	This village lies off the main road.
Bara	2	...	...	Wells 20 or 30 feet deep. Vegetables and fruit plentiful. At the end of each day's journey from Bara halting places ready for travellers are met with. These are good large huts surrounded by fences to keep off hyænas. Numerous villages are passed.
Woad es Zaki (Sakra)	...	...	...	Near Woad es Zaki a good deal of iron smelting is carried on. From Obeiyad to Abû Kurat, which is not far from the Nile, the road is good. In many places thorn bushes have been cut down to secure a wider and better path. Trees become larger as one approaches the Nile, and there is a marked change in the character of the vegetation, the thorn bushes being replaced to a great extent by brush and grass. There are many snakes and scorpions. The bites of the former are fatal to man. From Abu es Zaki the road leads for a few hours along the top of an immense sand bank, from which there is a good view of the country. It is flat to the north, south, and southwest, only broken towards the south by the towering height of Jebel Araskol. To the east a long expanse of grey mud, which during the Karif is covered with water. Leaving the elevation, a burning plain is entered, and an acacia wood reached for camping in. The Arabs in this district retire during the Karif to pastures far distant from the Nile, but follow the water back again, till in the dry season the river banks are very thickly populated. As the water retires they sow the grain in the mud. There are no water-melons here, but plenty of dhûra and maize. The next day the Nile was crossed in a flat-bottomed ferry boat. The river was 600 yards broad, and the current strong. Two camels and eight men are a boat load. El Getaneh is a small neatly built town on the high bank of the river. It is the place where the slaves are landed from the ferry boats before arriving at Khartûm, and sent thence across the Blue Nile. There are large herds of camels, goats, and oxen in the neighbourhood. Dhûra, maize, and sugar cane grow luxuriantly. Khartûm is 75 miles from where the Nile was crossed.
Abu es Zaki	6	...	...	
...	1	...	...	
El-Getaneh	2	...	...	
Khartûm	1	...	75	

* "Uganda and the Egyptian Sûdan," Wilson and Felkin.

POSTAL ARRANGEMENTS

THE Equatorial and Bahr el-Ghazal provinces postal arrangements are very good. There is a weekly post, and letters travel with perfect safety and regularity. Generally two soldiers and a native dragoman carry the letters, which are fastened in a small leather bag. The men walk in single file, the bag being carried by the man in the middle.

They travel 40 miles a day, or more if the post be urgent.

During the rainy season the letters are put in a tin box well greased.

The time at which the man arrives at or starts from each station is noted on a paper which he carries with him.

Single letters for short distances are carried by runners in a split stick.

Posts and Mails.

New Dongola is the last stage on the left bank from Cairo.

On the right bank the main line goes by Korosko, Abû-Hamed, Khartûm, Kordofan, and Darfur. The delivery every 10 days is pretty punctual, and the postage from England is one piastre (2½d.). The letters after reaching Cairo are carried by rail to Siut, and thence by runners, the Sheikhs of the villages on the road being responsible for their immediate dispatch at any hour of the day or night.

TELEGRAPHS.

THE following are the lines of telegraph :—

(1.) Cairo—Wadi Halfa—New Dongola—Debbah—Meroe (Dugivet)—Berber—Shendy—Khartûm. A double line.

(2.) Khartûm—Bara—El Obeiyad—Foga—Om Shangah—El Fasher. Single line.

(3.) Khartûm—Mesalamiyeh—Abû Haraz—Sennâr—Karkuk (Karkog)—Raz Baz. Single line.

(4.) Abu Harâz—Kedaref—Doka—Kalabat.

(5.) Berber—Gos Redjeb. Kassala. Double line.

(6.) Kassala—Maharakut—Jirri (Jirdeh). Single line.

(7.) Kassala—Fillik—Suâkin. Single line.

(8.) Kassala—Amadib—Senhit—Massuah. Double line.

According to Mr. Felkin ("Uganda and the Egyptian

Sûdan") the following is a description of the construction of the Khartûm-Darfur line of telegraphs:—

"The telegraph posts are 100 yards apart, and the cost is said to have been about £5 a post. Each post is of hollow iron, and is made in two parts. It fits into a good iron socket, which is buried in the sand. In some parts small thorn hedges were placed round the posts to protect them, as the cattle are apt to rub themselves against them. The telegraph has only been disturbed twice by wild animals since it has been put up. The natives are very frightened at the 'silk,' as it is called, thinking it is 'medicine,' and very powerful medicine. They are almost afraid of speaking near it, as they consider it has the power of carrying reports of what it hears to Khartûm."

On the telegraph line between Suâkin and Kassala there are 10 stations, each in charge of a non-commissioned officer and 10 soldiers for maintenance purposes.

The poles erected in loose sand are being continually blown down.

TSETSE FLY AND HORSE SICKNESS.

THE TSETSE FLY (*Glossina Morsitans*).

THIS pest of certain regions of Africa is, as far as regards the northern latitudes, found between 26° and 32° long. E., and 18° and 24° lat. N. (according to "L'Exploration," vol. xi, 1881). It appears, however, that in certain seasons it goes further north, and that it has been observed in Abyssinia by Bruce.

Mr. Felkin ("Uganda and the Egyptian Sûdan," vol. ii, pp. 234, 239"), states that he met with the tsetse fly between Foroga, in lat. 9° 25' N., and the Bahr el-Arab, but that it did not exist north of this river.

In Livingstone's "Travels in South Africa," he describes the fly as not much larger than the common house fly, and of nearly the same brown colour as the common honey bee. The after part of its body has three or four yellow bars across it, the wings project considerably. It is remarkably alert, but in the cool of the evening is less agile. It has a peculiar buzz, and its bite is certain death to some animals, as the horse, ox, and dog. It is perfectly harmless to men and wild animals, and even to calves, as long as they continue to suck the cows. The bite is, at the time, not more than that of a mosquito, but, a few days after an ox is bitten, the following symptoms intervene:—The eye and nose begin to run, the coat stares, a swelling appears under the jaw, and sometimes at the navel, and

though the animal continues to graze, emaciation commences, and proceeds unchecked until, perhaps months afterwards, purging comes on, and the animal, no longer able to graze, perishes by exhaustion. Those in good condition often perish, soon after the bite is inflicted, with staggering and blindness, as if the brain was affected. Sudden changes of temperature seem to hasten the progress of the complaint.

The mule, ass, and goat enjoy the same immunity from the tsetse as man and the game.

The tsetse has a great disgust for animal excreta, and some people smear their beasts with the droppings of the animals for protection.

The fly is met with specially in the vicinity of the rivers and marshes, and never crosses the limits of the well-defined districts in which it is found.

In Livingstone's "Last Journeys," he says "that the camels did not seem to feel the fly, but that in one that died in shiverings and convulsions, though the symptoms were not like those observed in horses and oxen, yet the blood had an arterial appearance similar to that in other animals killed by the fly."

In speaking of transport in Central Africa the Rev. C. J. Wilson* says, "The presence of the tsetse fly (*Glossina morsitans*) prevents the employment of the system of bullock wagons in vogue in South Africa, and renders the use of pack horses impossible. The country is quite unsuited for camels (even if they were proof against the tsetse, which they are not)."

"As already mentioned, the ordinary baggage animals are useless on account of the tsetse fly, though, it is true, it has been suggested that possibly a line of country might be found north of the 7th parallel of south latitude, where this fly would not be met with; but this is far too vague an hypothesis on which to found any project."

In all probability the tsetse fly will disappear as the country becomes more opened up, and the wild animals on which it feeds become extinct.

Horse Sickness.

Sir Samuel Baker reports that the well known African horse sickness attacked his horses at Gondokoro in the month of October ("Ismalia," vol. i, p. 362), and in spite of every precaution the horses died. The disease began by an appearance of languor, rapid action of the heart, scantiness of urine, costiveness, swelling of the forehead above the eyes, which rapidly extended to the whole head;

* "Uganda and the Egyptian Sūdān," Appendix I.

stiffness and swelling of the neck, eyes prominent and bloodshot, running at the nose of foul greenish matters in extraordinary quantities—convulsions and death.

Gordon in writing from Kerrie, south of Gondokoro, says, "The cows of these parts will not live at Fatiko, or to the south. Horses all die. Mules and donkeys live."

FINANCE AND TRADE.

Owing to the untrustworthy character of Egyptian finance, it is difficult to arrive at any satisfactory comparison of the receipts and expenditure for the Sûdan provinces.

In 1874 Colonel Gordon's expedition and the occupation of Darfur were simultaneously being carried on, and the commerce with the White Nile, which had recently received a severe check, was reviving. The following is an official return of the value of the products, which arrived at Cairo from the Sûdan for the preceding Coptic year:—

Return showing the Value of Articles of Merchandise of the Sûdan sold at the Bulak Bazaar during the year 1873-74.

	£	s.	d.
Ostrich feathers	824,013	0	9
Various gums	647,390	14	9
Elephants' teeth (ivory)	50,816	14	7
Tamarinds	716	3	11
Wax	1,759	5	4
Senna	4,082	16	2
Calves skins	13,622	19	1
Whips	54	4	6
Coffee	12,112	10	6
Red pepper	5	16	6
Tiger skins	0	3	1
Monkeys	1	19	5
Crocodiles	4	7	0
Sacin skin	0	10	3
Rhinoceros horn	8	8	7
Ostrich eggs....	1	5	7
Medicinal plant called Char- co macade....	9	3	7
	1,554,600	3	7

This merchandise arrived in caravans, which on an average took four months on their journeys.

The Khedive at this time saw the necessity for a Sûdan railway, and instructions were sent to the consulting engineer of Egypt, Mr. Fowler, to take immediate steps to commence the work, the route and construction being those recommended by him in his report of December, 1873.

Necessity of opening up trade by a railway.

The southern end of this line of railway was to be at Shendy, the most convenient centre for all traffic arriving by the Nile, and down to which point the river was navigable more or less.

Project for railway.

At this point also camel routes from Abyssinia, Kedaref, Kalabat, Taka, Baraka, Sennâr, and other neighbouring fertile provinces converge.

From Sennâr the line was to cross the so-called Desert of Bayûda, a tract well provided with water and small timber, and reach the Nile again near Debbèh, which is a convenient centre of commerce for Darfur, Kordofan, and the western provinces. From Debbèh the line was to run near the Nile, along that portion of its course (about 220 miles) where the rapids known as the second and third cataracts render navigation impossible to cross the river at Kohe, and to reach Wadi Halfa, a point whence the river to Philæ, at the head of the first cataract, is always navigable. Thence to Assuan a short line of railway had already been constructed to avoid the first cataract, and from that point water communication is open to Siut, the southern terminus of the Upper Egyptian Railway.

This project, however, has never been carried out.

In 1877 McCoan says,* in writing of the Sûdan provinces: "At this early stage of its development the trade of these remote provinces is of course relatively inconsiderable, but the producing capacity of nearly the whole is described by both Baker and Schweinfurth as great. Besides the Shillûk country, Northern Sennâr, Shendy, and Taka are especially adapted by soil, climate, and regular rains from June to the middle of September for cotton cultivation on the largest scale. Kordofan and the Basé country yield large quantities of gum arabic, which can be sold at Kassala at 20 piastres: (about 4s. 2d.) per cantar of 98 lbs. Ostrich feathers, ivory, aromatic woods, coffee, skins, ebony, senna, potash, and beeswax—this last mostly from Abyssinia—are also collected by travelling native traders, and resold to resident merchants in Khartûm and Kassala at prices that leave a large margin of profit on export. With the gradual establishment of more regular government, the opening of easier and more rapid means of communication, and the even partial sup-

* "Egypt as it Is."

pression of slave hunting, a wide and speedy growth in the producing industries may be expected, with corresponding gain to the population, to the Egyptian Treasury, and to civilisation. The wise policy which has been pursued by the Government for some years past, of supplying cotton and other seeds gratuitously, and offering every inducement to raise experimental crops, has prepared the way for this; and only access to profitable markets is now needed to stimulate the production of grain, sugar, and cotton on a scale fully commensurate with that of Egypt itself."

The present route for caravans from the Sûdan to Cairo.

"The great centres of collection for the existing trade are Khartûm, Kordofan, and Darfur. Goods are chiefly brought to the first of them by land, and are then placed in river boats or *nuggurs*, rudely built craft of about 40 tons burden, which take cargo down as far as Abû Hamed, where it is transferred to camels and carried across the Nubian Desert to Korosko. Then it is again re-shipped, and conveyed by water to the first cataract, which is easily passed at high Nile; or, when the river is low, the goods are landed at Shellal, a village below Philæ, thence conveyed on camels to Assuan, and again reladen into boats and floated down either to the railway at Siut, or, without breaking bulk, to Cairo."

"By this route five changes, involving nearly 250 miles of land carriage, are necessary between Khartûm and the capital. From the Kordofan and Darfur districts goods are brought by camels across the desert and embarked on the Nile at Debbah and Handek, whence they are conveyed by boat to Haffir, at the head of the third cataract, and thence again by camels to Wadi Halfa, and so down, like the Khartûm freights to Cairo; or at high Nile they may be taken by river as far as Amka, at the head of the second cataract; but this last portion of the voyage is tedious and full of risk. These routes also involve five changes, and respectively about 590 and 400 miles of land carriage between Kordofan and Cairo. The Central Darfur districts are nearly 200 miles still further away from the river. It need hardly be said that the difficulties of transport thus offered very heavily handicap trade, and show how valuable will be the facilities afforded by the railways now in progress, which, when the various links are completed, will furnish through communication between Khartûm and Alexandria, with only a single break of gauge."

Gordon writes that in 1877 the Government of the Sûdan cost £259,000 more than the revenue produced, but that he was cutting down the excess.

When the Goschen scheme was made, Mr. Goschen was

told that the Sûdan gave a tribute of £143,000 a year, which according to Gordon was false, as the Sûdan always cost Cairo money.

Not more than five-sixths of the revenue was ever collected, the remaining one-sixth being absorbed in *back-sheesh* and other corrupt practices.

In 1878 Gordon gives the following summary of the state of the accounts:—

	£
The debt of the Sûdan....	 327,000
The revenue	 579,000
The expenses	 651,000
Deficit	 72,000

In a letter from Colonel Gordon, published in the *Times* October 12th, 1880, he says:

"The Egyptian Government strenuously objects to submit the Budget of revenue and expenditure of the Sûdan and Egypt to public investigation. It publishes a statement *en bloc*, which may be worth the paper which it is printed on, and gives us no details.

"The districts of Equator, Bahr el-Ghazal, Darfur, Senhit, Harrar, Zeyla, and Berbereh, all governed at the rate of a deficit of at least £150,000 a year, while the annexation of the Damkli coast will add some £40,000 to this deficit. If any advantage were accruing to the Egyptians or the natives of these lands there would be reason to retain them; but it is a misery to the inhabitants and a drain on Lower Egypt to keep them, while it is unjust to the creditors, who have a right to every pound in excess of legitimate expenditure."

"During my service in Egypt Cairo never supplied any funds to the Sûdan; since I left, large sums are given for its government. This would be right if any check were maintained over the expenditure, for then those useless districts would be evacuated."

The Budget reports published in the *Moniteur Egyptien* put down the annual expenses of the government of the Sûdan, the coast of the Red Sea, and the province of Harrar, at £100,000.

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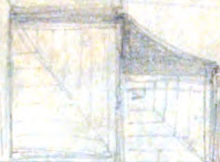
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